Your Name

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Title: Autism Disease

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# Abstract

Autism is defined as a spectrum of neurodevelopment conditions that are characterized by the impairment in communication, social interaction, and the presence of repetitive behavior. Autism is referred to as naturally occurring cognitive variation instead of dysfunction, deficit or mental health problem. The debate that whether autism is mental illness has become a prominent issue in popular media and politics. The movement of neurodiversity challenges the medical model's interest in cure and causation thus celebrating autism as a separate aspect of identity. According to neurodiversity, movement autism should not be considered as a disease and all people with autism should possess the same inalienable and equal rights as all human beings regardless of gender, sexual orientation, language, religion, the severity of a disability, geography, culture, and age.

# Introduction

Worldwide autism is the fastest-growing developmental disorder. Autism is defined as a spectrum of neurodevelopment conditions that are characterized by the presence of repetitive behavior and impairment in communication and social interaction. In recent years the question that “Should autism be considered a disease or it is just a variation of normal? has been a source of heated debate (Hobson). Most of the advocates of autism arguing that it should not be considered as disorder or disease. Over the last 20 years, tremendous progress has been made in autism research but still, answers to most of the questions shave not been found. There is no scientifically proven cure for autism. Studies have shown that behavioral interventions demonstrate benefits. Autism results in a substantial burden for families, individuals, and society. Over the last 2 decades, a steady increase in the prevalence of autism has been reported. However, a plateau in the prevalence of autism is seen between 2000 and 2012. According to the Center for Disease Control and Prevention, the prevalence of autism among children has increased from 1 in 150 to 1 in 68 between 2000 and 2010. Researchers have devoted great attention to the autism economic burden. Studies have shown that annual behavioral treatment and medical costs range from $6000 to $35000. Autism is a developmental disorder. The symptoms of autism are not evident until age 2 or later. The child can appear to be developing normally until the age of two years, and then they stop learning new skills or may even forget old skills. For the diagnosis of autism, autism diagnostic observation scale and childhood autism rating scale are used. These scales use behavioral observations from teachers, parents, and caregivers. Diagnosis of autism often has to be delayed because behavioral symptoms become evident after 2 years of age. Autism is not just a genetic disorder but some environmental factors also play a role in its etiology. Most of the people struggled to understand the nature of this disease and there is a dispute that the causes of autism are both environmental and genetic. More than 10 genes are associated with the risk of autism. Many environmental challenges are also associated with this disease (Chandrasekhar).

# Autism Etiology

Pathogenesis and etiology of autism are still a matter of speculation. Thus, without reliable biomarker autism is diagnosed by observing the behavior. This limitation in autism knowledge creates a problem in diagnosing the symptoms of autism. The main symptoms that are associated with autism include a deficit in social interaction and communication and repetitive pattern of activities, behaviors, and interests. Throughout the 20th-century, autism research like many other diseases has been a victim of debates about the role of genetic and environmental determinants. Studies have been conducted on autism and it was found that most of the diagnostic symptoms, for example, social behavior are normal until the age of 6 months. The symptoms which appear in the first years of life are not specific to autism. By the age of 12 months, repetitive behaviors that are associated with autism are shown in infants. However, the differences in other developmental areas have been reported in the first 12 months of the child such as language, visual reception, eye gaze pattern, and motor skills. Absence of language skills before 12 months of age and abnormal motor system development between 6 and 12 months have been reported in autism children. Behavior changes in the first two years of life are not sufficient to predict accurately diagnosis of autism. Studies have been conducted on brain development in autism. It was found that the size of the head was normal at birth but after 2 to 3 years the size of the brain significantly increased. For example, a prospective brain imaging and retrospective head circumference studies found no evidence of the brain enlargement at the time of birth (Packer).

# Risk Factors

Exact causes of autism are still unknown but there are different factors such as genetic, biologic and environmental that make a child more likely to be diagnosed with autism. Most of the scholars agreed that autism is a result of a hereditable genetic mutation and difference. Although not all children with autism are identified as having genetic mutation and linkage. In the last few years' significant progress has been made in determining the genetic factors that are associated with autism. Autism can be caused by abnormalities in genetic code, which may result in an abnormal mechanism for the development of the brain. This, in turn, leads to the functional and structural brain abnormalities, symptomatic behavior and neurobiological and cognitive abnormalities. Neurobiological abnormalities include a problem with the development of genetic code involving multiple regions of the brain (anterior and frontal-temporal lobes cerebellum and caudate). On the other hand, functional and structural abnormalities of the brain include decreased white matter as compared to gray matter, increased gray matter in temporal and frontal lobes and functional and anatomical differences in the limbic system and cerebellum. The difference in response of the brain to the environment includes disruption in social neurodevelopment normative pattern and decreased neural sensitivity shift in dynamic gaze in infancy. By keeping in mind the autism risk complexity, most of the researchers started to investigate how pre and post environmental factors such as drug exposure, dietary factors, and environmental toxicants interact with the genetic susceptibility to autism. A large number of environmental exposures have been determined including insecticides, lead, hydrocarbons, and automotive exhausts. Autism is divided into 3 main categories: Asperger syndrome, autistic disease, and pervasive development disorder.

# Signs and Symptoms

Individuals with autism have problems with communication, social and emotional skills. They repeat some behaviors and not change their daily activities. Most people with autism have different ways of paying attention, learning or reacting to things. Autism signs begin during early childhood and last throughout the life of a person. Children with autism avoid eye contact. They usually want to be alone. They have a problem talking about their feeling. They have trouble expressing their needs and adapting to routine changes. They have an unusual reaction to the way things feel, taste, smell, and sound. Autism is less dependent on environmental factors and diagnosed at an early age (Szatmari et al.).

# Neurodiversity and Autism

In the past few years a new term 'neurodiversity' has arisen to describe autism. According to this instead of seeing autism as dysfunction, deficit or mental health problem it is referred to as naturally occurring cognitive variation (Cascio). People with autism may interact, communicate, learn and behave in ways that are different from other people. The thinking, learning, and problem-solving abilities of individuals with autism can range from gifted to highly challenged (Gillberg). A diagnosis of autism includes some conditions that are sued to be diagnosed separately such as Asperger syndrome and persuasive developmental disorder (Brosnan et al.).

The *Lancet* Editorial (June 18, p 2479) invokes the neurodiversity theme and consider autism a condition instead of a disease. As mentioned before autism is a broad spectrum of disorder and its severity differs among individuals. Children with autism may be considered as normal. They can contribute to society just like any other individual. The scientific community is working to find the causes and treatment of autism. Due to the lack of evidence on autism, the disease presents a challenge for the scientist. The annual autistic pride day falls every 18 June. The main purpose of this day was to encourage an autistic difference celebration instead of reinforcing a stereotypical perception of autism as a disorder or disease. It is important to enabling autistic people to live their lives fully without any discrimination and allowing them to contribute and participate in all aspects of society. Autism is a relatively new diagnosis. and is used widely since 1990. Neurologic research remains difficult and there is a lack of knowledge of neurologic bases for this disease. Neurodiversity is associated with different autistic characteristics and every individual has a different experience of autistic life. To accept this neurodiversity, cooperation from multiple stakeholders such as neurologists, autistic people, parents, researcher’s and mental health care professionals is required (Bhandari and Khanal). Every individual is neurotically different and this is a case with autism. It is the responsibility of a society to respect the right of individuals with autism. Efforts should be made to provide autistic people with access to all the best services. Worldwide it is necessary to raise the public awareness of autism. Most of the autistic individuals struggle with the difficulties that are associated with being autistic and some people wish for a cure. Neurodiversity advocates tend to adopt a social model of disability. According to them autism is caused by biological factors and considers it a component of natural human variation. These advocates seek to provide a culture in which autistic individuals feel pride in a minority group identity (Kapp et al.).

Previously autistic people faced barriers and discrimination that have denied them their civil and human rights. As a result of this person with autism has been suffering from poverty and marginalization at a disproportionate rate. the neurodiversity movement believes in the full entitlement of human rights for autistic people. People with autism should be treated with respect and dignity for their autonomy in making their own decisions and choices these people should have full benefits of laws, policies, and legislation that protect their right to live with dignity and without discrimination.

# Conclusions

 Neurodiversity stated that autism is a result of normal variation and should not be considered as a disorder or disease. The neurodiversity movement supported the right and advocacy of people with autism. There is a need to adjust mental framework and see autistic people are more than their diagnosis. Efforts should be made to provide people with autism with access to all services so that they can contribute to society like other people.

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