

Causes of autism research paper

[Science](#), [Genetics](#)



Autism is a complicated development disability that belongs to a group of developmental disabilities known as autism spectrum disorders. It involves delays in development of very crucial skills such as ability to converse effectively, ability to socialize and to form relationships.

This condition presents itself within the first three years of a person's life and children with this condition may also have behavioral challenges and intellectual impairments. The fact that this disorder affects each child differently forms the basis of its naming. It is believed that the condition is due to neurological disorder that affects a person's communication development and skills of interacting socially by first affecting the normal functioning of the brain.

This condition makes its victims have issues with non verbal form of communication, social interaction problems among others. Besides difficulties in socialization and communication, people with autism tend to stick to a given set of behaviors and will tend to resist any changes to the adopted activities. Relatives of people suffering from this condition have attested to the fact that if the person senses an incoming change, they prepare and either resists the change or react relatively lower to the change or variation. Since it is a wide spectrum disorder, no two people have similar symptoms and some people might have not so strong symptoms.

People with autism interact with one another in a different manner compared to how the rest of the population interacts. In regard to social skills, people with mild symptoms are usually clumsy, offensive in speech and being out of synchronicity. Severe symptoms make a person completely uninterested on other people. Also, they make very little eye contact and health care

personnel are working on improving their ability to see signs and symptoms at a much earlier age.

A sufferer with mild symptoms can be taught that making eye contact while communicating is an integral part of communication. A person with autism in most cases misses the stimulus that provides information on what to do in attempting to catch somebody else's attention. This makes them unaware of any attempt by somebody to talk to them and the interest to talk to a group or a person might be so immense that they lack the same skills when other people or groups try to be involved.

This implies that they lack the important talking and playing skills. Besides, they lack personal space while communicating, develop resistance to being touched, respond to social situations without initiation and do not generally share their experiences with others. Sufferers of autism have difficulty in understanding figures of speech, facial expressions and communication through movement of body parts. Their social skills are unique in that they tend to socialize not with their peers but with members of other age groups and they have problems upholding friendships and inability to understand the feelings of others.

Individual sufferings from this condition find it harder to understand other people's feelings because his or her willingness and ability to responsively understand is weaker than in other people. However, the ability to consider other people's feelings improves when the sufferers are constantly reminded. People with autism give the impression that they are talking at people and not with them because there is minimal or no switch of sentiments, themes and feelings.

Since the disease is complex and has variations in symptoms and severity, it does not have a single known cause. Therefore, both genetics and surrounding comprise its several causes. Numerous genes seem to be involved in autism and some of them might make a child vulnerable to the condition. The genetic problems might affect the development of the brain and the manner in which brain cells communicate.

The problems with genes of an individual might also determine how severe the condition is or might be. The substantial influence of genes can be inherited and others might take place without advance preparation.

Previously, researchers thought that autism was because of poor attachment skills by the sufferer's mother. This impression has made mothers of children with autism guilty. High maternal age at the time of birth is a risk factor for autism besides medication use by mothers before birth, bleeding or diabetes relating to gestation. There are also inherited factors that might lead to autism such as tuberous sclerosis, single gene mutation and biochemical defects (Taylor et al, 2013).

Research is ongoing whether environmental factors such as air pollutants, complications during pregnancy and viral infections play any part in actuating autism. Epilepsy leads to a sudden loss of language skills thereby making it a cause of autism. Autism and seizures are strongly related in that autism leads to development of seizures and autistic like behaviors develop due to other causes among patients with seizures. Knowledge of causes of autism has led to a reduction in cases of pure autism and identification of individuals with autism because of specific causes.

A person with autism has problems with communication in that he or she

may not speak at all, have severely delayed language, unusual speech patterns, inability to engage in a conversation, and inability to use imagination during play sessions. Also, the sufferers of autism may show controlled and ritualistic interests, activities and behaviors. Some of their behaviors may be self injurious, show aggression, show resistance to change, use of odd gestures and the tendency of being upset if their daily routine changes.

People with autism tend to always speak the truth because they value the truth. Also they respond to surrounding sensory inputs that facilitate their achievement of ideal mindfulness. They lack distinctions that generate judgmental attitudes among people because distinctions of whether somebody is fat, slim or short are much less important to them. Those with this condition see through surface appearances in a bid to discover the real person.

Many of them are truly passionate about different aspects of life. Social expectations among such people are at times very irrelevant but they have a better memory than their peers. Some of the people with autism are not materialistic because they are far less concerned with the outward appearance of different things for example, hairstyles, expensive externals and brand names.

Despite the fact that most of the autism sufferers do not like physical contact, some of them enjoy physical contact greatly mostly in the form of hugging. In this regard, anticipation and practice makes them feel the same as most of their normal peers. People with autism find sudden loud noises very unpleasant and shocking. The case is similar to responses to an

anticipated physical contact which is not prepared for. Speaking skills become more and worse depending on the severity of the condition.

Most of them are victims of echolalia, an event characterized by repetition of words or phrases being heard. Their speech may sound more woody and formal than that of other people. Also, the intonation in the speech of most people with this condition may sound flat. Sufferers of autism like predictability and they are so fond of routine. They are less adaptable to variation in procedures. For example, a normal child may take a bath, brush the teeth then go to bed and any alteration to this procedure will not affect him or her.

On the contrary, if there is any change in this procedure, for example, brushing teeth, having a bath then going to bed, children with autism may become very upset. It is a good thing to help a child with autism to cope with change but it is totally incorrect to force them to accept change because this can greatly affect their quality of life.

Normal children develop at a harmonious rate in many areas while those with autism develop differently. For example, his or her cognitive skills may develop so fast, while his or her social skills may develop at a relatively slower rate. They could have a much larger vocabulary and other aspects of their social development and growth may be different from that of the others.

Their ability to learn is so unpredictable in that at times they may learn much faster or learn some things the hard way before learning to do it in an easy way. They lack physical movements that can be jerky at times because of the complications of such movements and ability to go on for a long time. In

case they have the jerky physical movements, they have to express them so that the urge can stop. Most of them enjoy such movements and in most cases they have a preferred spot where they can do them. The movements which are always done in private and spacious places may make the parents shocked and worried. This and other behaviors show that people with autism have obsessions.

Children with autism tend to react well to pivotal response discourse if it is provided at an early age. This approach requires the involvement of parents and situations of play that need to be created specifically for them.

Incorporation of learning and development factors make intervention easy among young children.

Researchers are in the process of discovering the responsibility of gene mutations in behavioral and problems that relate to cognition of people with autism. Mutation in a gene that encodes proteins in the body disrupts development of brain circuits thereby causing disabilities and thus raises the risk of being susceptible to autism. Genetic mutation that causes autism generally affects synapses leading to severe impairments of intellect and behaviors that retard development of genes.

Disruption of normal functioning of SynGAP1 leads to poor development of the brain because it controls synaptic functions of genes. Also, alteration of some genes affects the normal cognitive functioning and abilities of the brain. The risk of autism increases during pregnancy and in cases of persistent flu. The situation is made worse if a pregnant woman has flu or persistent fever for more than seven days. However, non respiratory flu infections, excretory system infection and sinus infection during pregnancy

are not related to chances of being a victim of autism. Also, antibiotic usage during pregnancy raises the risk of autism but to a small extent.

Children whose parents or close family members have bipolar disorders have a high risk of being diagnosed with autism. Also, if the father of a child is much older during pregnancy then such a baby has higher chances of being diagnosed with autism. This is because older fathers can pass new mutations to their babies more than older mothers. Irregularities in immune system, for example, changes in an overactive immune system can contribute to behaviors that relate to autism.

Mutations of specific genes such as PIK3CA are linked to maturation of autism. Exposure of a pregnant woman to pollution of air traffic leads to a greater risk of autism in her offspring. This is because air traffic pollution particulate matter and nitrogen (IV) oxide which increase the risk of being diagnosed with autism. Though the exact cause of autism is not known, research points to several factors besides the ones discussed above.

Parents with genetic predisposition to autism have vulnerability to develop the condition that is passed on to their children. Since children with autism have several abnormalities in numerous regions of the brain, it is important to note that autism is caused by disruptions in early brain development while the child is still in the womb. As such, inappropriate production of antibodies by the body's immune system may at times attack brains of children thus resulting into autism. Autistic behaviors are also caused by abnormalities in a child's brain structure and abnormal timing of growth of children's brains. Autistic children have a faster growth rate of the brain then later start to grow at a very slow rate.

Intervention plans of autism need to be tailored to meet specific needs because the characteristics of autism are not universal. Intervention involves behavioral treatments and medicine because autism brings along medical conditions such as seizures and sleep disturbances. When such conditions are addressed, learning, and attention improves. Intensive behavioral intervention at an early age involves the close working relation between a child's entire family and professionals.

Parent training is crucial in making a parent lead therapy sessions and other specialized programs geared towards diagnosing autism. As a child grows and develops, different supports and interventions become appropriate because as a child grows he or she acquires new social and learning skills. In a school environment, targeted training on social skills may benefit children with autism. Transition services are important to adolescents with autism because they facilitate maturation into self dependence and employment opportunities during adulthood (Williams & Williams, 2010).

The methods and findings of this research show that autism is a condition that is either genetically inherited, caused as a result of exposure to certain environmental factors or use of certain drugs by women during pregnancy. It is important to note that the causes are not universal because different children with autism have variations in their behaviors. The research is interesting because it explains the different aspects of autism spectrum disorder (ASD) which is a complicate disorder for which research on its causes, symptoms and interventions is still ongoing. Another area of interest is the fact that interventions have to be initiated at a very early age and most of them are behavioral.

References

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