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AUTISM SPECTRUM DISORDER: A NEURODEVELOPMENT DISORDER

BIZARRE HABITS OF GENIUSES DR HASHIMA HASAN: A SCIENTIST'S JOURNEY FROM AMU TO NASA

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#### HEALTH

AUTISM SPECTRUM DISORDER: A Neurodevelopment Disorder

Being told that your child has autism can be traumatizing and unbelievable for many parents and they might be stunned by such news. However, it is essential to understand that being autistic does not mean an individual has an illness or disease. It means his/her brain works in a different way from other people. Till now there is no 'treatment' or 'cure' for Autism. Some people with autism need support to help them with certain things. The more we scientifically understand an autistic view of the world, the more we will be able to support them. Autism Spectrum Disorder (ASD), commonly known as *autism*, is a neurodevelopment disorder caused by differences in the brain. It is characterized by difficulties with social communication and social interaction and restricted and repetitive patterns in behaviours, interests, and activities.



The symptoms can be identified during early stages of development and affect daily functioning. The term 'spectrum' is used because everybody with autism is different-some autistic people need little or no support, others may need support from a parent or caregiver on a day-today basis.

#### **Causes and Symptoms of Autism**

The exact cause of ASD is unknown. It seems to be genetic, but parental age and prescription medications taken during pregnancy are also involved. Some children on the spectrum begin to show symptoms as young as a few months old, while others appear to have normal development milestones for the first few months or years of their lives before they start showing symptoms. However, up to half of the parents of children with ASD notice problems by the age of 12 months, and between 80 and 90 per cent notice problems by the age of two years. Children with ASD will have symptoms their entire lives, but they can improve as they get older. The autism spectrum disorder is extremely broad. Some people may have very noticeable issues, while others may not. Differences in social skills, communication, and behaviour when compared to those on the spectrum are the common thread.

#### Autism and social skills

A child with ASD finds it difficult to interact with others. Some of the most common symptoms are difficulties with social skills. They may desire close relationships but are unsure how to achieve them. If a child is on the autism spectrum, they may exhibit some social symptoms by their first birthday, such as not responding to their name; not being interested in playing, sharing, or talking with other people; preferring to be alone; avoiding or rejecting physical contact, including hugging; avoiding eye contact; not liking to be comforted while upset; and not understanding emotions-their own or others'.

### How does autism affect communication?

Around 40% of children with autism

spectrum disorders do not speak at all, while between 25% and 30% have some language skills during childhood but lose them later. Some children with ASD do not begin to speak until later in life. Most have communication issues, such as delayed speech and language skills; a flat, robotic speaking voice or a singsong voice; echolalia (repeating the same phrase over and over), problems with pronouns (for example, saying 'you' instead of 'I'), not using or rarely using common gestures like pointing or waving and not responding to the gestures; inability to stay on a certain topic when talking or answering questions; inability to recognise sarcasm or joking; trouble expressing needs and emotions, and/ or not getting signals from non-verbal communication, tone of voice and expressions.

#### Diagnosis

The earlier intervention for autism begins, the more likely it is to be effective. Signs and symptoms of ASD can be identified by early surveillance (collecting or gathering information) and screening (testing). Surveillance or developmental monitoring is an active on-going process of watching a child grow and encouraging conversations between parents and providers about a child's skills and abilities.

The diagnosis of ASD is based on diagnostic evaluations that often involve a team including a physician and a psychologist and may include other disciplines such as speech and language pathology or occupational therapy. The evaluation should consist of standardized observations of the individual, learning and cognitive abilities assessments, and interviews to gather information about behaviour across multiple settings and medical and developmental history.

#### Interventions

Several behavioural therapies for ASD have shown effectiveness in changing the cognitive level (e.g., IQ), specific skills (e.g., vocabulary, social skills, and joint attention), behavioural challenges, and mood. However, no data comparing various therapies are available. Medications have been shown to reduce behavioural issues and improve mood. There is a lot of interest in finding treatments that change the core characteristics of ASD. The most well-established therapy incorporated applied behaviour analytic techniques, which have evolved to be more natural, developmental in sequence, and adaptable. Parent-mediated therapies, group models, and combined (medical and behavioural) therapeutic approaches have recently been developed and tested. Involving the family in interventions has consistently resulted in better outcomes.

#### Parents' responsibilities

Seeking professional advice: If parents notice that their child does not meet specific developmental milestones (or if they do but lose them later on), such as smiles by 6 months, imitates facial expressions or sounds by 9 months, coos or babbles by 12 months, gestures (points or waves) by 14 months, speaks with single words by 16 months and uses phrases of two words or more by 24 months and plays pretend or 'makebelieve' by 18 months, they should seek professional advice immediately without ignoring or avoiding the issue, because early intervention is critical to autism therapy success.

**Therapeutic approach:** Parents should play a supportive and empowering role for their children. They should ensure that the approach is consistent at home and in therapy and focus on their child's progress rather than comparing them to other children.

**Reinforcing positive behaviour:** It is essential to consistently support (give positive praise or reward to) a child when they do something positive, rather than focusing on the negative behaviour. This must be done at home regularly by parents.

#### Society's responsibilities

Human beings are social creatures and people should extend compassion, help, and love for all. This should have been the classical case, but the real world is far different from what we talk in theory. Human society throws out or shuns

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people with unexplained or complicated medical conditions. The degree to which a person is being shunned by his/her immediate society depends on the composition and character of the society. People often ignore a person because they cannot relate to their condition due to ignorance, illiteracy, orthodox attitude, generalization or classification, the prevalence of myths, etc.

We, as a society, should work towards the prevention and early detection of autism. Some steps like providing free education, employment, and unemployment allowance to people with autism are often thought of. We should also ensure whether aids and appliances are made available to people with autism. Social security, like financial assistance to non-government organizations to rehabilitate persons with autism, should also be provided.

Autism is not common, what is more common is not talking about it. We should appreciate parents who have understood that it is not abnormal, but "special". Autism comes with specializations, skills, talents and, growth of high level of IQ in an individual. An autistic



## **SCHEMES FOR PERSONS WITH DISABILITIES**

- 1. http://socialjustice.nic.in/schemespro3.php
- http://innovationclustersarchive.nic.in/content/page/awareness-generation-andpublicity.php
- 3. http://innovationclustersarchive.nic.in/content/page/ddrs.php
- http://innovationclustersarchive.nic.in/content/page/rajiv-gandhi-national-fellowshipfor-students-with-disabilities.php
- http://innovationclustersarchive.nic.in/content/page/scheme-of-financial-assistancefor-skill-training-of-pwds.php
- 6. http://innovationclustersarchive.nic.in/content/page/incentive-scheme1.php
- http://innovationclustersarchive.nic.in/content/page/assistance-to-disabled-personsfor-purchase.php

# SCHOLARSHIP SCHEMES FOR THE PERSONS WITH DISABILITIES:

- http://innovationclustersarchive.nic.in/content/page/rgnf-for-students-with-disabilities. php
- http://innovationclustersarchive.nic.in/content/page/nos--for-students-withdisabilities.php
- 3. http://innovationclustersarchive.nic.in/content/page/pre-matric-and-postmatricsscholarship-for-students-with-disabilities.php
- http://innovationclustersarchive.nic.in/content/page/scholarship-scheme-from-trustfund.php
- http://innovationclustersarchive.nic.in/content/page/scholarship-scheme-fromnational-fund.php
- http://innovationclustersarchive.nic.in/content/page/proposed-scholarship-schemes. php
- http://innovationclustersarchive.nic.in/content/page/scholarship-of-top-classeducation.php

# FACTS

<b>.</b>	As per WHO, about one in 160 children has an ASD.
<b>*</b>	ASD occurs in all racial and ethnic groups and across every socioeconomic status level.
<b>.</b>	Boys are about four times more likely to have ASD than girls.
<b>*</b>	A child is more likely to be on the spectrum if his/her immediate family member (brother, sister, or parent) is autistic. But it doesn't always run in families.
Ş.	About 10% of children with ASD have a form of a genetic disorder such as Down syndrome and Fragile X syndrome.

- A Danish study found a link between ASD and the advanced parental age of either parent.
- Women prescribed opioids before pregnancy are likelier to have a child with ASD.

Source: https://www.swavlambancard.gov.in/ cms/schemes-for-persons-with-disabilities

person puts his/her heart and soul into understanding the various phenomenon and excel in the field which they like the most, and quite often come up with awestruck ideas, ways, and methods of doing things. Autism needs early intervention and better understanding so that it could help them function more independently and live a fulfilling life.

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