Overview of Autism

Created by: Rakesh kumar - 21/02/2020

Table of contents

1. Autism & Learning
2. Classification of Autism
    i. Is your child 'at risk' for Autism?
    ii. Autism Signs
    iii. Screening tests
3. Autism and Co-occurring Conditions
4. Underlying Aetiology
5. Autism in India

Autism Spectrum Disorder (ASD) the result of a Neurological Condition, also referred to as pervasive developmental disorder is characterized by deficits in social interaction, verbal and nonverbal communication, engagement in repetitive behaviours or interests, rigidity in thought and behaviour.

Autism & Learning

Early intervention in ASD helps to minimize delays and improves a child's potential in reaching normal developmental milestones. Researcher also shows that individualized, structured teaching fostered the children's progress and helped in improving his/her communication skills, daily living abilities, motor coordination, social skills, and adaptive behaviours.

Educational mechanisms for the Autistic children use methodologies like TEACCH (Treatment and education of autistic and related communication handicapped children), ABA (Applied Behaviour Analysis), Sensory Integration Therapy etc. These methods emphasize on working in collaboration with parents and families, to create programme design around individual strengths, skills, interests and needs of the child; enabling the individual to be as independent as possible.

ICT based solutions can ideally aid in implementing these established methods of teaching and help as supporting aids in achieving the desirable personalized teaching strategies for the Autistic.

Classification of Autism

Classic forms of autism can usually be diagnosed before the age of three, while milder or atypical cases may take much longer to be identified. Autism is clinically defined by a set of characteristics that manifest in different ways and are expressed to varying degrees of severity, thereby more commonly referred to as the 'autism spectrum'. The Diagnostics and Statistics Manual of Mental Disorders (DSM-5) released in 2013 re-defined autism. It's predecessor, the DSM-IV included five Pervasive developmental disorders (PDDs): Autistic disorder, Asperger's disorder, Rett's disorder, Childhood disintegrative disorder and Pervasive developmental disorder not otherwise specified (PDD-NOS). In DSM-5, Autistic disorder, Asperger's disorder, and PDD-NOS are replaced by the diagnosis of Autism spectrum disorder differentiating between individuals according to the severity of their symptoms.

Is your child 'at risk' for Autism?

Autism is a neuro developmental disability that impairs social and communication development, pretend and imagination. It is not mental illness. Nor caused by trauma. The symptoms can be greatly reduced by early detection and intervention. Autism occurs 4 times more in boys than girls, 1/150 children will be diagnosed as having autism. Autism is not a disease, it is a condition.

At 18 months..

- Does language development seem slow?
- Has lost words once mastered?
- Did you or others suspect hearing loss?
- Has an unusually long attention span?
- Seems to be in her/ his own world?
- Is hyperactive?
- Walks or spins on toes?
- Flaps hands when excited?
- Unable to follow simple command like "come here"
- Fails to respond to own name?
- Plays by self rather than with children of same age?
- Leads you by hand rather than use finger pointing to request some object?

- Unable to bring an object to show you?
- Avoids eye contact or have difficulty sustaining eye gaze?
- Shows inappropriate behavior?
- Does not show interest in searching the objects placed before him/her?

If the answer is yes to most of the questions, your child may be 'at risk' for autism. Immediately consult a paediatrician.

Autism Signs

Autism refers to a group of developmental problems known as autism spectrum disorders (ASD). It appears in early childhood usually before the age of 3. Generally, autistic children face problems with social interaction, language and behaviour; the symptoms and severity vary. In severe cases, there is a complete inability to communicate or interact with others. Most children with autism are slow in acquiring new knowledge or skills while others have normal to high intelligence; they learn quickly. Yet they have trouble communicating and adjusting in social situations. Some autistic children have exceptional skills in areas such as art, mathematics or music. However, **Autism is not same as mental retardation. Autism is not contagious.**

Lack of timely development of language, regression in communication etc., are signs that help your doctor to evaluate autism. Certain developmental tests including speech, language and psychological issues also help confirm autism.

Screening tests

There are no biological markers for autism.

The Childhood Autism Rating Scale (CARS) test combines parent reports and direct observation by the professional. It helps identify and diagnose autism in ages 3 to 22 years and also estimates the severity of the disorder. The entire scale can be completed in 20-30 minutes. The CARS was originally correlated to the DSM III and then to the DSM III-R. The test provides standard scores and percentiles as well as a table for determining the likelihood that a child is autistic and the severity of the disorder.

Indian Scale for Assessment of Autism (ISAA) is a screening tool developed by National Institute for the Empowerment of Persons with Intellectual Disabilities (Formerly National Institute for Mentally Handicapped (NIMH)), Government of India that helps diagnose autism in the early stages.

To access the Government of India's Guidelines for evaluation and assessment of Autism and procedure for certification, click here.

Autism and Co-occurring Conditions

People diagnosed with 'classic' autism often also have other co-occurring conditions, such as learning difficulties (intellectual disability), impaired language development, and epilepsy/seizures, which affect their quality of life. These 'co-morbid' conditions may not be manifested (or not to the same debilitating degrees) in people with classic autism without intellectual disability. However, psychiatric conditions such as depression, bipolar and affective disorders, commonly occur in the entire spectrum. They are also prone to behavior problems, immunity problems, digestive problems and sleep problems.

Underlying Aetiology

Autism spectrum conditions are strongly influenced by genetic factors, but the underlying genetic mechanisms are complex and not yet fully understood. There is no single gene for autism; instead multiple genes are likely to be involved and these vulnerability genes may vary between families and individuals. Interactions between genes and interplay between genetic and environmental influences are also likely to play a role in the development of the condition.

Autism in India

One of the major difficulties faced by parents of children with autism in India is obtaining an accurate diagnosis. A parent may take their child to a paediatrician only to be reassured that their child is just "slow." Unsatisfied, they may visit a psychologist, to be told their child is "mentally subnormal." Convinced that their child does not fit the typical picture of mental retardation, they may visit a psychiatrist, to be told that their child has attention deficit disorder, and must be put on medication to control hyperactivity. After months of sedation and unsatisfactory progress, they may again begin a cycle of searching for the correct name for their child's problem. Fortunately, the process of obtaining a diagnosis of autism in India is improving, as more paediatricians become aware of the condition. As more children are diagnosed as autistic and more awareness of the disorder spreads, there will be a demand for services. Schools will be forced to educate themselves if they find that more of the population they serve is autistic.

Admittedly, there are not enough services to meet the needs of mentally retarded children and adults in India, let alone those who are autistic. Let this then be an impetus to create more, and ensure that the special needs of autistic children are not ignored. There is also an urgent need to begin planning homes and centres for these children when they become adults: people with autism have a normal life span and many will require supervision after their parents' death. Currently, the needs of autistic children in India are not being met in either the regular or special education systems. With an understanding teacher or possibly an aide, a more able autistic child can function very well in a regular school, and learn valuable social skills from his peers. However, even children with very high I.Q.'s are often not permitted in regular classes. Also, the rigidity and pressure of schools in India can make it difficult for an autistic child to cope without special allowances. Some middle and lower functioning children, who form the majority of autistic children, may attend special schools, but these schools almost always lack an understanding of effective methods of handling the challenging behaviours of autistic children.

The Government of India recognizes autism as a disability. Parents should continue to educate themselves about the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 and The Rights of Persons with Disabilities Act 2016, to be aware of what are their rights and benefits are as caregivers of autistic children.

Source: *e-Saadhya - Adaptable and Accessible e-Learning, C-DAC,*

source:

https://data.vikaspedia.in/short/lc?k=AYw774JX7ryeHaKBxdvqFQ