Autism

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Key facts

- Autism – also referred to as autism spectrum disorder– constitutes a diverse group of conditions related to development of the brain.
- In 2021 about 1 in 127 persons had autism.
- Characteristics may be detected in early childhood, but autism is often not diagnosed until much later.
- The abilities and needs of autistic people vary and can evolve over time. While some people with autism can live independently, others have severe disabilities and require life-long care and support.
- Evidence-based psychosocial interventions can improve communication and social skills, with a positive impact on the well-being and quality of life of both autistic people and their caregivers.
- Care for people with autism needs to be accompanied by actions at community and societal levels for greater accessibility, inclusivity and support.

Overview

Autism spectrum disorders (ASD) are a diverse group of conditions. They are characterized by some degree of difficulty with social interaction and communication. Other characteristics are atypical patterns of activities and behaviours, such as difficulty with transition from one activity to another, a focus on details and unusual reactions to sensations.

The abilities and needs of autistic people vary and can evolve over time. While some people with autism can live independently, others have severe disabilities and require life-long care and support. Autism often has an impact on education and employment opportunities. In

addition, the demands on families providing care and support can be significant. Societal attitudes and the level of support provided by local and national authorities are important factors determining the quality of life of people with autism.

Characteristics of autism may be detected in early childhood, but autism is often not diagnosed until much later.

People with autism often have co-occurring conditions, including epilepsy, depression, anxiety and attention deficit hyperactivity disorder. The level of intellectual functioning among autistic people varies widely, extending from profound impairment to superior levels.

Epidemiology

It is estimated that worldwide in 2021 about 1 in 127 persons had autism *(1)*. This estimate represents an average figure, and reported prevalence varies substantially across studies. Some well-controlled studies have, however, reported figures that are substantially higher. The prevalence of autism in many low- and middle-income countries is unknown.

Causes

Available scientific evidence suggests that there are probably many factors that make a child more likely to have autism, including environmental and genetic factors. Scientific studies show that exposure to certain environmental factors appear to occur more frequently in children with autism, or their parents. These include advanced parental age, maternal diabetes during pregnancy, prenatal exposure to air pollutants or certain heavy metals, prematurity, severe birth complications and low birth weight.

In addition, research studies have looked into possible association between use of various medicine during pregnancy and increased risk for autism. For example, prenatal exposure to valproate and carbamazepine, which are used for seizures, appear to occur more frequently in children with autism.

More research is needed to better understand the role of each of the factors that appear to be associated with a higher risk for autism, and how they interact with genetic variations.

Extensive research using a variety of different methods and conducted over many years has demonstrated that the measles, mumps and rubella vaccine does not cause autism (2,3). The study that was interpreted as indicating any such link was later proven to be wrong and fraudulent. The journal that published it withdrew the study, and the doctor who authored it lost his medical license *(4,5,6)*.

Evidence also shows that other childhood vaccines do not increase the risk of autism. Extensive research into the preservative thiomersal and the additive aluminium that are contained in some vaccines strongly concluded that these constituents in childhood vaccines do not increase the risk of autism.

Assessment and care

A broad range of interventions, from early childhood and across the life span, can optimize the development, health, well-being and quality of life of autistic people. Timely access to early evidence-based psychosocial interventions can improve the ability of autistic children to communicate effectively and interact socially. The monitoring of child development as part of routine maternal and child health care is recommended.

It is important that, once autism has been diagnosed, children, adolescents and adults with autism and their carers are offered relevant information, services, referrals, and practical support, in accordance with their individual and evolving needs and preferences.

The health-care needs of people with autism are complex and require a range of integrated services, that include health promotion, care and rehabilitation. Collaboration between the health sector and other sectors, particularly education, employment and social care, is important.

Interventions for people with autism and other developmental disabilities need to be designed and delivered with the participation of people living with these conditions. Care needs to be accompanied by actions at community and societal levels for greater accessibility, inclusivity and support.

Human rights

All people, including people with autism, have the right to the enjoyment of the highest attainable standard of physical and mental health.

And yet, autistic people are often subject to stigma and discrimination, including unjust deprivation of health care, education and opportunities to engage and participate in their communities.

People with autism have the same health problems as the general population. However, they may, in addition, have specific health-care needs related to autism or other co-occurring conditions. They may be more vulnerable to developing chronic noncommunicable conditions because of behavioural risk factors such as physical inactivity and poor dietary preferences, and are at greater risk of violence, injury and abuse. Autistic people are more likely to die prematurely.

People with autism require accessible health services for general health-care needs like the rest of the population, including promotive and preventive services and treatment of acute and chronic illness. Nevertheless, autistic people have higher rates of unmet health-care needs compared with the general population. They are also more vulnerable during humanitarian emergencies. A common barrier is created by health-care providers' inadequate knowledge and understanding of autism.

WHO resolution on autism spectrum disorders

In May 2014, the Sixty-seventh World Health Assembly adopted a resolution entitled Comprehensive and coordinated efforts for the management of autism spectrum disorders, which was supported by more than 60 countries.

The resolution urges WHO to collaborate with Member States and partner agencies to strengthen national capacities to address ASD and other developmental disabilities.

WHO response

WHO and partners recognize the need to strengthen countries' abilities to promote the optimal health and well-being of all autistic people.

WHO's efforts focus on:

- increasing the commitment of governments to taking action to improve the quality of life of people with autism, in line with the framework for action outlined in the WHO-UNICEF Global report on children with developmental disabilities: From the margins to the mainstream;
- providing guidance on policies and action plans that address autism within the broader framework of health, mental and brain health and disabilities;
- contributing to strengthening the ability of the health workforce to provide appropriate and effective care and promote optimal standards of health and well-being for autistic people; and
- promoting inclusive and enabling environments for people with autism and other developmental disabilities and providing support to their caregivers.

The WHO Comprehensive mental health action plan 2013–2030 and the Intersectoral global action plan on epilepsy and other neurological disorders calls on countries to address the current significant gaps in early detection, care, treatment and rehabilitation for mental and neurodevelopmental conditions, which include autism. It also calls for counties to address the social, economic, educational and inclusion needs of people living with mental and neurological disorders, and their families, and to improve surveillance and relevant research.

References

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