



Synthesis on autism

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How important is it?

Autism is a [developmental disorder](#) of unknown origin. Once considered rare and almost always severe, it is now understood to be more common and varied in its occurrence. Autism begins in infancy, affecting one in 200 children. Usually detected by the age of three and in some cases as early as 18 months¹, rates of occurrence are unequally divided between the sexes with it being four times more likely to manifest in boys than girls.

Autism is characterized by impairments in socialization, communication, and behaviour and play. Children affected with this disorder “demonstrate deficits in 1) social interaction, 2) verbal and nonverbal communication, and 3) repetitive behaviours or interests. In addition, they will often have unusual responses to sensory experiences, such as certain sounds or the way objects look.¹” The cognitive abilities of individuals with autism vary widely. While the rate of [mental retardation](#) in autism is approximately 70%, a significant percentage of individuals fall within the average to above-average range of intelligence. Between 15% and 30% of autistic children experience a [period of regression](#) at the age of 12 to 20 months in speech and social behaviour.

While no susceptibility gene has yet been identified, evidence of inheritability exists. The recurrence rate of autism in siblings is known to be between 2% and 8% and milder impairments of social communication skills or language are found in as many as 20% of relatives.

What do we know?

Autism is an organic condition that affects development very early in life. Autistic children have [social/emotional difficulties](#) with the use of non-verbal behaviours, such as eye-to-face gaze, and the communicative use of gestures, facial expressions and body posture. Demonstrating joint attention and empathy seems to be a challenge as they are likely to prefer isolated activities.

The ways in which social and communicative problems are manifested vary widely among autistic children. However, the presence of [early social orienting impairment](#), which is demonstrated prior to 24 months of age, has led researchers to conclude that it is the primary impairment in autism.

Diagnosis of autism is difficult prior to 30 months of age because of the [instability of diagnoses](#) before that age period. A [key indicator](#) is impaired social processing of faces, emotions and mentalizing skills, and difficulties acquiring communication skills. But because there is no biological marker or medical test for the condition, and early indicators of social behaviour are harder to measure and analyze than developments

in language or motor skills, diagnosis of young children can be hard to achieve. Instead, [autism diagnosis](#) relies on parental report information and on behavioural observation.

What can be done?

Treatment of autism is complicated by the wide range of [individual differences](#) among children with the disorder. As a result, effective intervention is difficult. Despite these difficulties, different types of early intensive interventions have been found to lead to significant gains in cognitive, social and language functioning for children with autism. For instance, early intensive [Applied Behaviour Analysis \(ABA\)](#) intervention – an approach to understand, assess and change behaviours and to teach new skills using a variety of methods based on individual needs – have led, in some children, to increased levels of educational and intellectual functioning. However, age and IQ of the children receiving ABA seem to affect their outcomes greatly. Other types of early intervention, which provide to preschool children with autism visual cues and structure that they find difficult to generate themselves, have also been associated with increased levels of social functioning in some of them.

Early intervention for children in [inclusive school settings](#) has been shown to help improve specific social skills. For instance, ABA teaching methods help children with autism learn how to initiate and respond to other children. Other instructional methods also teach children specific play skills and other behaviours to help them interact with their peers.

It is possible to isolate some [important elements](#) of intervention programs for autistic preschoolers. These include

- development of communication skills (verbal or non-verbal)
- joint engagement and joint social activities
- promotion of emotional engagement and regulation
- help for parents to manage behavioural problems

Parents play a pivotal role in the outcomes of early intervention and researchers are beginning to identify parent characteristics or skills that could help a child's progress. [Parent education](#) can serve as a way to relieve stress and empower parents, which could help enhance the impact of early intervention. Parental sensitivity – following the child's focus of attention – has also been identified as influential.

A vital [social policy issue](#) is to develop training programs to help more impaired children with autism to transition into adaptive adult roles in society. Early intervention is cost-effective relative to the [cost](#) of autism to individuals, families and society when early treatment is not received. Policy-makers should support early identification and treatment to minimize the negative consequences of late diagnosis. To increase the potential for positive developmental and social progress in children with autism, researchers should focus on improving methods for the reliable identification of autism and on understanding what form of treatment is most [effective](#) for the type of child, the developmental stage and the outcomes. Moreover, research needs to address the possible causes of this disorder such as genetic transmission and brain development.

Reference

1. Strock M. *Autism Spectrum Disorders (Pervasive Development Disorders)*. Bethesda, Md: Department of Health and Human Services, National Institute of Mental Health; 2004. NIH Publication No. NIH-04-5511. Available at: <http://www.nimh.nih.gov/publicat/autism.cfm>. Accessed June 26, 2006.