

Children with Asperger's syndrome had higher socialisation scores and fewer autistic symptoms than children with autism

Szatmari P, Bryson SE, Streiner DL, et al. *Two-year outcome of preschool children with autism or Asperger's syndrome. Am J Psychiatry* 2000 Dec;157:1980-7.

QUESTION: Do children with Asperger's syndrome have different socialisation and autistic outcomes at 2 years than children with autism?

Design

Inception cohort with mean follow up of 26 months.

Setting

{4 community clinics and 2 university clinics}* in southern Ontario, Canada {that specifically provide services to children with a pervasive developmental disorder}*.

Patients

68 children (4-6 y) who were diagnosed with autism or Asperger's syndrome based on the Autism Diagnostic Interview (1988 version), and had either a Leiter intelligence quotient (IQ) score >68 or a Stanford-Binet IQ score >70. Children who were diagnosed with pervasive developmental disorder but were not testable, or had a mental age score of less than half their chronological age on psychometric testing, were excluded. The criteria for Asperger's syndrome were different from, but consistent with, *ICD-10* and *DSM-IV* criteria for Asperger's disorder, and included a lack of clinically significant language and cognitive delay at 36 months. A diagnosis of autism also required evidence of marked deviance in language development or speaking after 36 months of age and met the Autism Diagnostic Interview algorithm for autism. A diagnosis of Asperger's syndrome took precedence over a diagnosis of autism. 2 children (3%) were lost to follow up.

Assessment of prognostic factors

Data were collected on IQ, socialisation (Vineland Adaptive Behaviour Scales), autism behaviour (Autism Behaviour Checklist symptom subscale), language and communication, and visual spatial and motor measures.

Main outcome measures

Competence in socialisation and autistic symptoms.

Main results

Of children who completed the study, 20 were diagnosed with Asperger's syndrome and 46 were diagnosed with autism at initial assessment. At outcome, children with Asperger's syndrome had higher socialisation scores than those with autism (75.6 *v* 61.8, $p=0.001$). Covariate analysis showed that differences in socialisation at follow up were explained by differences at initial assessment ($p<0.001$). The diagnostic distinction, however, remained predictive of socialisation after controlling for baseline differences in language and non-verbal IQ ($p=0.01$). Children with Asperger's syndrome had fewer total autistic symptoms at follow up than children with autism (37.0 *v* 58.8, $p=0.001$); these were explained by the group differences at initial assessment ($p<0.001$).

Conclusion

At 2 years, children with Asperger's syndrome had higher socialisation scores and fewer autistic symptoms than children with autism.

*Information provided by author.

COMMENTARY

For any parent to receive the diagnosis of autism or Asperger's syndrome for their child is devastating. One of the first questions these families ask is how will their child grow up and manage in later life. There are few outcome studies, and fewer still on how more specific impairments may influence long term outcome.

The purpose of this study by Szatmari *et al* was to identify differences in outcome of preschool children with a diagnosis of autism compared with children with Asperger's syndrome. They also attempted to identify specific variables, independent of the diagnostic criteria, which may account for observed differences in outcome. Overall, children with Asperger's syndrome had better social skills and fewer autistic symptoms at 2 years follow up than children diagnosed with autism. Differences in outcome were not explained by initial differences in IQ and language ability. Interestingly, children with autism who had "verbal fluency" at follow up seemed to be clinically more akin to children with Asperger's syndrome than those with autism. Although the authors argue that their results lend credence to the distinction between Asperger's disorder and autism, the outcome data suggest a potential for overlapping developmental trajectories that may be reflecting language development.

In some respects, this study confirms what has been thought to be clinically important in prognosis (ie, language ability at 5 y and overall general IQ). Specification of particular deficits and their role, however, is an important research question. Perhaps unfortunately, the authors based their diagnostic criteria on the Autistic Diagnostic Interview, which has no algorithm for Asperger's syndrome. Because most clinicians use the *ICD-10* or *DSM-IV*, I feel prognostic data relating to these classificatory systems would have been more helpful.

Several centres have claimed benefits from early intervention and educational programmes and, although these claims have been challenged,¹ information regarding this type of intervention for both groups would have been useful for assessing the results of this study.

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1 Howlin P. Prognosis in autism: do specialist treatments affect long-term outcome? *Eur Child Adolesc Psychiatry* 1997 Jun;6:55-72.

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