

research snapshot

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Learning About Differences Between Boys and Girls With Autism Spectrum Disorder by Studying High Risk Younger Siblings

What is this research about?

Boys have a higher rate of Autism Spectrum Disorder (ASD) than girls. Researchers do not know why this occurs, but theories include an increasing number of rare variants involving genes on the X chromosome and testosterone related effects on the brain. Past research suggests that differences between boys and girls with ASD are less distinct in families that have at least 2 affected children. This study explores how ASD presents in siblings by gauging early development and risk of ASD among younger siblings of children with ASD.

What did the researchers do?

Infant siblings of children with ASD who are considered high risk were recruited for the study. A total of 319 high risk infants were followed until age 3, of whom 85 were diagnosed with ASD. A comparison group of 113 low-risk infants with no known relatives with ASD were also followed.

The researchers assessed ASD symptoms, early development (e.g., language, motor skills), and independence skills in participating children. They looked at differences between boys and girls among the children diagnosed with ASD. They also looked at differences between boys

What you need to know:

Boys are more at risk of ASD than girls, but this appears to be less true among younger siblings of children with ASD.

and girls among the siblings not diagnosed with ASD and among the low-risk infants. The researchers also assessed how the risk of ASD among high-risk siblings differed among younger brothers and younger sisters.

What did the researchers find?

The researchers found that the risk of ASD was only modestly higher in younger brothers compared to younger sisters of children with ASD within the sibling group. Similar differences were found between boys and girls with ASD as those found between boys and girls in the non-ASD high and low risk group.

How can you use this research?

Families will learn that rates of ASD are higher among younger brothers of children with ASD compared to younger sisters, but the rates are

more similar among boys and girls than what has been reported in the general community.

Practitioners might consider if there are some girls with ASD that are not being diagnosed. A reason for missed diagnosis of girls may be due to general differences in social behavior between boys and girls.

Policymakers will want to ensure that assessment procedures for ASD are effective in clarifying the diagnosis and clinical needs of both boys and girls.

About the Researchers

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Autism spectrum disorder, Early diagnosis, Sex differences, Infants, Longitudinal study

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