Welcome!

SPARK is changing what we know about autism in women and girls.

There are over 30,000 women and girls with autism in SPARK! This makes SPARK the largest research study of autistic women and girls in the country.

Together, scientists and SPARK participants are making a big impact on autism research. Hopefully, this science will help to change the lives of women and girls with autism. This snapshot highlights research results from two publications from 2021 that focused on girls. If you’d like to read more, links to the full text of the papers are at the end of this report.

In this report, the terms “women” and “girls” include individuals assigned female sex at birth. SPARK recognizes that there is a difference between assigned sex at birth and gender identity. One of our aims is to be able to shine a light on research in the field of gender and autism as more studies emerge.
Number of women and girls with autism in SPARK

31,297

Age of women and girls with autism

These data do not include people with unknown ages.
Diagnosis Information

On average, girls were diagnosed at 4 years old.

Average age at adult diagnosis

Independent autistic women were diagnosed later than dependent autistic women. Some adults were not diagnosed until their 60s or 70s. This likely reflects increased recognition of autism in more recent years.

Independent Autistic Women: 23 years old
Dependent Autistic Women: 7 years old
Diagnosis Differences in Children

Sex at birth is the strongest predictor of when a child will receive an autism diagnosis – more than repetitive behaviors, IQ, language delays, or age at the first signs of autism.

Autistic females without co-occurring conditions were diagnosed at 4 years old. Males were diagnosed 4 months earlier than females – this is true even when their parents had their first concerns at the same time.

Females with a combination of autism, ADHD*, and anxiety were diagnosed the latest, at 7 years old.

*ADHD stands for Attention Deficit Hyperactivity Disorder
These data show that when diagnosing autism, anxiety is a more common co-occurring condition in girls, whereas ADHD is a more common co-occurring condition in boys.

Parents of girls were more likely to report first concerns related to motor development such as late walking.

This was different from boys, who more often experienced delayed first words, repetitive behaviors, and loss of speech or other skills.

Sex Ratios

SPARK researchers found that sex ratios differed when looking at more specific groups of children.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autism alone</td>
<td>4 to 1</td>
</tr>
<tr>
<td>Autism &amp; Anxiety</td>
<td>3 to 1</td>
</tr>
<tr>
<td>Autism &amp; ADHD</td>
<td>over 5 to 1</td>
</tr>
</tbody>
</table>

For every 4 boys diagnosed with autism in the US, only 1 girl is diagnosed.

These data show that when diagnosing autism, anxiety is a more common co-occurring condition in girls, whereas ADHD is a more common co-occurring condition in boys.
Girls with autism who have co-occurring anxiety or ADHD showed more autistic traits, such as repeating phrases or difficulties with eye contact.

Girls with autism who have ADHD had more severe motor delays.

Girls with autism who have co-occurring anxiety and ADHD had more repetitive behaviors than autistic females with only one co-occurring condition.
References


Thank you!
to all of the participating individuals and families!
Together, we can learn so much more.