

# Diversity in developmental trajectories in kids with autism spectrum disorder

January 28 2015

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Quinn, an autistic boy, and the line of toys he made before falling asleep. Repeatedly stacking or lining up objects is a behavior commonly associated with autism. Credit: Wikipedia.

Preschool children with autism spectrum disorder (ASD) differed from each other in symptom severity and adaptive functioning at the time of diagnosis and some of these differences appeared to increase by age 6, according to a study published online by *JAMA Psychiatry*.

Although a small proportion of [children](#) with ASD will lose the diagnosis at some point in their life some literature suggests that ASD is a lifelong condition involving persistent and stable impairments in language, social skills, educational attainment and activities of daily living, according to the study background.

Peter Szatmari, M.D., of the Centre for Addiction and Mental Health, Toronto, Canada, and coauthors described the developmental trajectories of autistic symptom severity and adaptive functioning in a group of 421 newly diagnosed [preschool children](#) with ASD who were participating in a large Canadian study. Data collected at four points from diagnosis to age 6 years were used to track the developmental trajectories of the children.

Study results showed two distinct trajectory groups for autistic symptom severity: Group 1 (11.4 percent of the children) had less severe symptoms and an improving trajectory, while Group 2 (88.6 percent of the children) had more severe symptoms and a stable trajectory.

For adaptive functioning, the children fell into three distinct trajectories: Group 1 (29.2 percent of the children) had lower functioning and a worsening trajectory, Group 2 (49.9 percent of the children) had moderate functioning and a stable trajectory and Group 3 (20.9 percent of the children) had higher functioning and an improving trajectory.

Researchers found that sex was associated with what autistic symptom severity group children would be in, and female sex was associated with the group with less severe and improving symptoms. Age at diagnosis, and language and cognitive scores at baseline were associated with grouping for adaptive functioning.

"During the preschool years, there appears to be only a small amount of 'yoking' [hitching together] of the developmental trajectories in autistic

symptom severity and adaptive functioning. It is imperative that a flexible suite of interventions that target both autistic symptom severity and adaptive functioning should be implemented and tailored to each child's strengths and difficulties," the study concludes.

**More information:** *JAMA Psychiatry*. Published online January 28, 2015. [DOI: 10.1001/jamapsychiatry.2014.2463](https://doi.org/10.1001/jamapsychiatry.2014.2463)

Provided by The JAMA Network Journals

Citation: Diversity in developmental trajectories in kids with autism spectrum disorder (2015, January 28) retrieved 27 April 2024 from <https://medicalxpress.com/news/2015-01-diversity-developmental-trajectories-kids-autism.html>

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