

# Study shows autism symptoms can improve into adulthood

**Hallmarks of autism are characteristic behaviors - repetitive motions, problems interacting with others, impaired communication abilities - that occur in widely different combinations and degrees of severity among those who have the condition.**

But how those behaviors change as individuals progress through adolescence and adulthood has, until now, never been fully scientifically documented. In a new study, published in the September *Journal of Autism and Developmental Disorders*, researchers have found that symptoms can improve with age.

"On average, people are getting better," says Paul T. Shattuck, an assistant professor of social work at Washington University in St. Louis who worked on the study as a graduate student and post-doctoral fellow at the University of Wisconsin-Madison's Waisman Center and is the first author of the paper. "It is a hopeful finding, but the fact remains that those with severe autism will depend on others for their everyday needs and care for the rest of their lives."

Autism is a widespread condition in the United States, affecting an estimated one in 150 children and an unknown number of adults.

The new publication is part of a groundbreaking longitudinal study of more than 400 adolescents and adults with autism and their families led by Marsha Mailick Seltzer, a Wisconsin professor of social work and the director of the UW-Madison Waisman Center. "This project is one of the largest long-term studies of autism and it represents the collaborations of a team of researchers who together are investigating how autism changes across the life course," Seltzer explains.

Half of the study's participants are from Wisconsin and half are from Massachusetts. They were recruited from service agencies, schools and clinics. Every 18 months, parents in the study are interviewed in depth to assess changes in their child's symptoms and behaviors.

The new paper reports on how behavior in 241 adolescents and adults, initially aged 10 to 52 years, changed over a five-year period. Although symptoms for many in the study remained stable, a significant proportion exhibited improvements in symptoms and maladaptive behaviors.

"For all major symptoms, the percentage of people who improved was always greater than the percentage who worsened," Shattuck says. "If there was significant symptom change over time, it was always in the direction of improvement, though there was always a group in the middle that showed no change. The mean never went down."

Like most people, individuals with developmental disabilities such as autism continue to grow and change over time, Shattuck explains: "Their development is not frozen in time and forever the same. That's just not the case."

The paper reported on changes in broad categories of typical autistic symptoms: impaired verbal and nonverbal communication, impaired social interaction, and repetitive behaviors. Within those broad categories, changes across 32 specific symptoms - ranging from reciprocal conversation and interest in people to compulsions and rituals - were measured. Also examined were broader maladaptive behaviors such as aggression and self-injury that are not specific to autism. Across all categories, the proportion of study participants who improved was larger than the proportion that worsened.

Of those in the study, 69 percent were also classified as having mental retardation.

"Not everyone on the autism spectrum is mentally retarded," Shattuck says, "but being mentally retarded reduces the likelihood of improvement for many symptoms."

Why some in the sample improved is being investigated as part of the ongoing study, according to Shattuck.

"Our study demonstrates that significant changes are occurring," he explains. "But in terms of the underlying biological mechanisms, we don't yet know what's going on."

Source: University of Wisconsin

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