

NEWS

Autism intervention before age 2 may aid social, language skills

BY MAAISHA OSMAN

16 MAY 2023

Autistic toddlers who receive a personalized intervention at about 18 months of age show greater gains in expressive language, social communication and daily living skills than do autistic children who start the therapy at 27 months, according to a new **study**.

The average age at diagnosis in the United States is **4 years**. Clinicians have sought ways to diagnose more children earlier, based on the premise that early interventions are the most effective, but until now the field lacked direct evidence to support that theory.

“Finding that children show greater gains during early intervention really puts the impetus on us as providers to try to diagnose the child earlier,” says lead investigator **Whitney Guthrie**, assistant professor of psychology in psychiatry and pediatrics at the University of Pennsylvania in Philadelphia.

Although the results help build the case for early diagnosis, they don’t mean that early intervention is better than later across the board, says **Micheal Sandbank**, assistant professor of occupational science and occupational therapy at the University of North Carolina at Chapel Hill, who was not involved in the work. Not all early interventions are the same, and different existing approaches are supported by completely opposing theories, she says.

“An error would be to overgeneralize these results,” Sandbank says.

Guthrie and her team trained the parents of 82 autistic toddlers, aged 18 to 27 months, to practice behaviors with their children that prioritize social communication and emotional regulation — a model called Early Social Interaction (ESI). The parents learned strategies drawn from the **SCERTS** curriculum, a framework co-developed by one of the study investigators.

The researchers randomly assigned the parents of 42 children to learn the ESI strategies during in-

person, one-on-one coaching sessions with a clinician two to three times a week for nine months; the parents of the remaining 40 children received ESI training during group sessions with four or five other families once a week. Then the parents in the individual sessions switched to the group training format, and vice versa, for an additional nine months.

Toddlers who began with the individual treatment showed an increase in receptive language scores, as measured by the **Mullen Scales of Early Learning**, and an increase in daily living skills and expressive language scores on the **Vineland Adaptive Behavior Scales** (VABS), the researchers found. By contrast, children who started out with the group intervention showed smaller increases in receptive and expressive language and a decrease in daily living skills.

The findings, published in *Autism* in March, suggest that the early intervention helped children in three particular areas, Sandbank says: social communication, adaptive behavior and language.

But other results reported in the study do not support the hypothesis that earlier intervention is better for those outcomes, Sandbank says. For instance, children who began with individual ESI did not improve their expressive language significantly more during the first half of the study than in the second half, based on the Mullen.

“In many cases, they got discrepant results,” Sandbank says. “And that doesn’t really get interpreted in the discussion with the same caution that I think it should be.”

The VABS tends to produce inflated results, because it is based on information from caregivers who are aware that their children are receiving an intervention, Sandbank says.

And because parents may learn skills in one setting that they apply in another, the findings risk a “contamination effect,” says **Wendy Ungar**, senior scientist at the Hospital for Sick Children Research Institute in Toronto, Canada, who was not involved in the work.

For example, if a parent receives the individual ESI training first, they may apply those lessons in the group setting, making the group ESI appear more effective, she says. “This way, the group ESI becomes contaminated.”

On the other hand, because parents received coaching during the individual intervention rather than before it started, the intervention could appear less effective. “That might have inhibited their ability to observe the true magnitude of the effects of the individual ESI,” Ungar says.

But overall, the study is well designed, Ungar says. And because it relies on natural interactions with parents, it could help lower the cost of treatment for young children.

“This is going to be a very important paper to support autism policies that allow early intervention,” Ungar says.

The study participants are primarily white and from a higher-education background, an important limitation, Guthrie says.

Guthrie says she and her colleagues next plan to focus on parent outcomes and investigate correlations between parents' education levels and the effectiveness of different intervention strategies.

As it stands, the claim that children benefit more from earlier intervention is not yet supported by robust evidence, Sandbank says. "We need more studies like this that are adequately designed to directly test this question."

Cite this article: <https://doi.org/10.53053/SKUG2897>