

NEWS

Parents' interactions with infants may alleviate autism features

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Teaching parents to respond to cues from babies at high risk of autism eases the severity of autism features at age 3, a new study suggests¹.

The research is a follow-up to a 2015 study that showed that a parent-delivered behavioral therapy **decreased autism signs** in their high-risk babies at age 15 months². The new study suggests these gains persist for months to years.

“We seem to have a sustained effect on reducing symptoms,” says lead researcher **Jonathan Green**, professor of child and adolescent psychiatry at the University of Manchester in the United Kingdom. “It suggests we've done something in the mechanics of the development of the child to change it.”

The 2015 study involved 28 babies who have an older sibling with autism. These so-called ‘**baby sibs**’ are **20 times more likely** than a typical child to be diagnosed with autism. The new study followed the same babies until age 3. The work appeared 10 April in the *Journal of Child Psychology and Psychiatry*.

The study is the first “methodologically strong, randomized trial of early intervention for high-risk infants,” says **Connie Kasari**, professor of human development and psychology at the University of California, Los Angeles, who was not involved in the work. “The researchers have done a careful follow-up of their infants — also a first.”

Home base:

Only about one in five baby sibs receives an autism diagnosis. But even those who do not meet the criteria for autism can **show features of the condition**, such as low social interest or attention

problems. These features can impede their ability to interact with their parents.

The children in the study come from the **British Autism Study of Infant Siblings** (BASIS). When they were 9 months old, their parents had the first of 12 individualized training sessions with a therapist. The training spanned five months.

“The importance of this study lies in emphasizing the need for a shift in focus from direct treatment of the child towards interventions that target the process of social interaction between the child and the caregiver,” says **Gordon Ramsay**, director of the Spoken Communication Laboratory and assistant professor of pediatrics at Emory University in Atlanta, Georgia, who was not involved with the new work.

During the sessions, parents watched video recordings of themselves interacting with their children. They received feedback on how to respond to their baby’s facial expressions and gestures. They practiced their new skills for at least 20 minutes every day. The parents of another 26 baby sibs did not receive any training.

At the end of the five months, the researchers measured early signs of autism in both groups of baby sibs, using the Autism Observation Scale for Infants. They used two other assessments to gauge the quality of interaction between the babies and their parents.

By these measures, the training seemed to improve parent-child interactions overall. Babies in the treatment group also seemed to have fewer early signs of autism, the researchers reported in the 2015 study². But the results varied significantly across the small sample, suggesting the effect could have been due to chance, Green says.

Preemptive program:

In the new work, the researchers assessed the children at ages 2 and 3 — old enough to be evaluated for autism using the Autism Diagnostic Observation Schedule.

Four children in the training group received an autism diagnosis, compared with two of the controls. But this difference was not statistically significant.

The quality of parent-child interactions was still better in the training group than in the control group at age 2, however. And the 2- and 3-year olds whose parents received training also showed less pronounced autism features than controls did.

These findings also did not reach statistical significance individually. But when the researchers combined the measures over the three time points, they found that the treatment offers a significant overall benefit.

The work hints that ‘preemptive’ therapies, in which parents address early signs of autism, may help their children develop more typically. But we need larger studies to be confident that the strategy works, says **Lindee Morgan**, assistant professor of pediatrics at Emory University, who was not involved with the new work. “We are far from having the data needed to recommend preemptive interventions for all baby siblings,” she says.

Green agrees. Larger studies could also assess whether the therapy lowers the chances of an autism diagnosis, he says.

REFERENCES:

1. Green J. *et al. J. Child Psychol. Psychiatry* Epub ahead of print (2017) [PubMed](#)
2. Green J. *et al. Lancet Psychiatry* **2**, 133-140 (2015) [PubMed](#)