

Kids with autism outperformed others on math test, study found

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Parents might be reassured by focusing on children's strengths, researcher says.

(HealthDay)—Children with autism and average IQs consistently did better on math tests than non-autistic children in the same IQ range, according to a small new study.

The superiority in <u>math skills</u> among children with autism was tied to patterns of activation in a particular area of the brain, an area normally associated with recognizing faces and visual objects.

"There appears to be a unique pattern of <u>brain organization</u> that underlies superior problem-solving abilities in children with autism," study senior author Vinod Menon, a professor of psychiatry and behavioral sciences at Stanford University, said in a university news release.

The study included 18 children with autism, aged 7 to 12, and a control



group of 18 children without autism. All participants showed normal verbal and reading skills on standardized tests, but the children with autism outperformed their peers without autism on standardized math tests.

The researchers also had all of the children work on <u>math problems</u> while their <u>brain activity</u> was measured using MRI. The brain scans of the children with autism revealed an unusual pattern of activity in the ventral temporal <u>occipital cortex</u>, an area of the brain specialized for processing faces and other visual objects.

The study will be published online Aug. 17 in the journal *Biological Psychiatry*.

"[Previous research] has focused almost exclusively on weaknesses in children with autism," said Menon, a member of the Child Health Research Institute at Lucile Packard Children's Hospital. "Our study supports the idea that the atypical <u>brain development</u> in autism can lead not just to deficits, but also to some remarkable cognitive strengths. We think this can be reassuring to parents."

Menon said children with autism sometimes exhibit exceptional talents or skills. For example, some can instantly recall the day of the week of any calendar date within a particular range of years, and others have outstanding math skills.

"Remembering calendar dates is probably not going to help you with academic and professional success," Menon said. "But being able to solve numerical problems and developing good mathematical skills could make a big difference in the life of a child with autism."

About one in 88 children has some form of autism, according to the U.S. Centers for Disease Control and Prevention.



More information: The U.S. National Institute of Neurological Disorders and Stroke has more about <u>autism</u>.

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