

## Study: Social influence playing role in surging autism diagnoses

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(PhysOrg.com) -- Social influence plays a substantial role in the surging number of autism diagnoses, according to a study published in the *American Journal of Sociology*.

The study, by researchers from the Institute for Social and Economic Research and Policy at Columbia University, found that <a href="children">children</a> living near a child who has been previously diagnosed with <a href="autism">autism</a> have a much higher chance of being diagnosed themselves in the following year. The increased likelihood of being diagnosed is not due to <a href="environmental">environmental</a> factors or contagious agents, the study found. Rather, it is due mainly to parents learning about autism from other parents who have a child diagnosed with the disorder.

"We show that the likelihood of getting an autism diagnosis is clearly associated with person-to-person transmission of information," said Peter Bearman, a sociologist who authored the study along with Ka-Yuet Liu and Marissa King. "Parents learn about autism and its symptoms; learn about doctors who are able to diagnose it; and learn how to navigate the process of obtaining a diagnosis and services from parents who have already been through the process with their own child."

The researchers stress that the results do not mean that autism is not real or that it is overdiagnosed. "Our study doesn't address the underlying cause of autism," Dr. Bearman said. "We are describing the mechanism by which the number of diagnoses is increasing. It could be that the real incidence of the disorder is only now being uncovered. I think that is a



reasonable message from this paper."

In California, where this study was conducted, the number of autism cases handled by the California Department of Developmental Services increased 636 percent between 1987 and 2003.

The Columbia University team looked at data on over 300,000 children born between 1997 and 2003 throughout California. The team found that children who live within 250 meters of a child with autism have a 42 percent higher chance of being diagnosed with the disorder in the following year compared with children who do not live near a child with autism. Children who live between 250 meters and 500 meters from a child with autism were 22 percent more likely to be diagnosed. The chances of being diagnosed decrease significantly the farther children live from another child with autism.

The study used several tests to determine whether these results could be explained by a social influence effect, or if environmental toxicants or a virus are to blame. For example, the researchers looked at children who live close to each other, but on opposite sides of school district boundaries. These children are likely exposed to the same environmental conditions, but their parents likely belong to different social networks. The research shows that the increased chance of diagnosis only exists when parents reside in the same school district. Children who live equally close to a child with autism—but in another school district—were no more likely to be diagnosed with the disorder than children who do not have a neighbor with autism. The results are a strong indication that the proximity effect is a social phenomenon and not the result of environment, Dr. Bearman says.

The study also showed the proximity effect to be strongest among children on the milder side of the autism spectrum. That is also consistent with a social influence explanation, Dr. Bearman says.



"Parents of severely disabled kids are more likely to recognize the disorder without needing input from social contacts," he said. "So we would expect to see a weaker proximity effect there, and that's exactly what we found."

## The Strength of Social Influence

The data set used in the study allowed the researchers to judge just how strong the influence effect is compared to other factors that may be driving the epidemic. For example, previous studies have found a link between autism and parents' ages. Parents today are having children later in life, and that could be causing autism cases to increase. Other studies have found that parents' education plays a role as well. Better educated parents may be more likely to obtain a diagnosis for their children.

The Columbia team found that each of these factors plays a role in the epidemic, but that the social influence phenomenon was the strongest. The researchers estimate that the proximity effect explains about 16 percent of the recent increases in autism diagnoses. Put another way, if no child lived within 500 meters of a child with autism, there would be a 16 percent reduction in autism diagnoses. That effect was stronger than the other factors tested. The mother's age explained about 11 percent of the increase. The mother's education accounted for 9 percent.

The study was funded by the NIH Pioneer award for innovative health research.

**More information:** Ka-Yuet Liu, Marissa King, and Peter S. Bearman, "Social Influence and the Autism Epidemic." *American Journal of Sociology* 115 (March 2010): 1387-1434.



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