Autism 'Epidemic' Denied, Ascribed to Diagnosis Shift

BY JOHN R. BELL
Associate Editor

Claims of an autism "epidemic" are not backed by the data, which show evidence that diagnostic substitution accounts for reported increases in the disorder and that those increases are still short of epidemiologic estimates, according to one researcher.

Paul T. Shattuck, Ph.D., a research associate at the University of Wisconsin, Madison, conducted an analysis of disability data from the Department of Education for U.S. children aged 6-11 years from all 50 states and the District of Columbia from 1984 to 2003.

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The data included the numbers of children categorized with any of 13 disabilities. He then used data from the U.S. Census to calculate incidence rates (Pediatrics 2006;117:1028-37).

He found that, according to logistic regression models, reported autism incidence met three criteria he established to determine that diagnostic substitution does, indeed, play a role: First, the nationwide incidence of reported autism has gone up, while the reported national incidence of other special-education categories (including mental retardation [MR] and learning disabilities [LD]) has gone down.

Second, within most states, increases in autism diagnoses are correlated with decreases in the number of children diagnosed with MR or LD. And third, the trajectories for the prevalence of various learning disorders have gone down at the same time that the administrative incidence of autism has gone up.

For the entire United States, the mean reported incidence of autism in children aged 3-10 years had gone from less than 1 case per 1,000 in 1994 to approximately 3 per 1,000 in 2003. However, this incidence rate was still short of the lower threshold of a reference range of expected incidence calculated by the Centers for Disease Control and Prevention. Thus, despite the marked increase in reported national incidence of autism over that time period, the incidence rate still did not meet the criteria required to be an epidemic, Dr. Shattuck wrote.

Moreover, the reported rates of learning disability and mental retardation decreased during the same period (odds ratio 0.98 and 0.97, respectively), while the overall incidence of all disabilities declined (by a non–statistically significant measure), discounting any claim that increased autism rates are a function of increased special education enrollment overall.

Dr. Shattuck also reported that LD and MR rates had declined in most states. The only states with increases in the learning disabilities category as well as autism were Oklahoma and Pennsylvania, and the only states with increases in mental retardation and autism were California, Michigan, New Jersey, and West Virginia. Increases in both disabilities were also found in the District of Columbia. He also observed that the historical trajectories for MR and LD prevalence were lower between 1984 and 1993 than between 1994 and 2003, with the advent of the autism diagnosis.

Dr. Shattuck noted that diagnostic substitution is suspected by many clinicians because the diagnostic criteria for autism have been expanded over the last few decades and that this phenomenon has been documented previously in special-education enrollment. He pointed out that the category of LD grew by 198% between 1976 and 1992, and the MR category shrank by 41%.

In an editorial accompanying the report, Craig J. Newschaffer, Ph.D., of Johns Hopkins University, Baltimore, conceded that diagnostic substitution is one factor that might contribute to increased autism prevalence. But Dr. Newschaffer added that not only the directions of classification trends but also their magnitudes should be incorporated into any statistical analysis thereof (Pediatrics 2006;117:1436-7).

Dr. Chris P. Johnson, medical director of the Village of Hope Center for Children With Disabilities at the University of Texas, San Antonio, and cochair of the American Academy of Pediatrics Autism Panel, offered qualified agreement with the theory of a diagnostic shift. She noted that before 1991, there was no label schools could use to give special education services to autistic children, other than MR, speech delayed, and LD. The "autism" label became available in 2003 with passage of the Improving Education Results for Children With Disabilities Act.

Moreover, because more services are often available to children with autism, including year-round schooling, behavioral management training, a home trainer, and funding for parental respite and/or recreation, parents and professionals may view the autism label as preferable to MR or LD. But despite this, "I certainly do not think [diagnostic substitution] is the only reason, and it may not even be the main reason, for the apparent rise in prevalence," she added.

Good intentions on the part of administrators may also play a role, she explained. "I think when there's truly uncertainty as to whether the diagnosis in a particular child is autism or something close to it, a label of autism is sometimes given in a compassionate effort to entitle the child to additional services, which will also, in turn, benefit the family."

She is not advocating for physicians to intentionally err on the side of an autism label, said Dr. Johnson, who disclosed that she had testified for the defense of vaccine manufacturers implicated in thimerosal lawsuits. Physicians must also weigh the possible negative consequences of labeling, particularly when the child might be on the mildest end of the spectrum. They also must look at the financial impact on early-intervention systems and school districts, she said. ■

Methylphenidate May Reduce Hyperactivity in Autistic Kids

BY PATRICE WENDLING
Chicago Bureau

TUCSON, ARIZ. — Two new studies support the use of methylphenidate in treating hyperactivity in children with autism.

The results contradict much of the historical data showing that psychostimulants are not helpful in this population but confirm what many psychiatrists are using in clinical practice for autism and autism spectrum disorders.

In the first study, 11 preschool children with autism received gradually titrated doses in an open-label fashion with methylphenidate hydrochloride 1.25-10 mg twice daily after a 1-week lead-in phase. Then the children were randomized to their optimal dose for 2 weeks and placebo for 2 weeks, in either order. The children ranged in age from 41 months to 72 months; the mean age was 5 years.

Methylphenidate was successful in reducing the hyperactivity/impulsivity subscale of the Conners' Parent Ratings Scale and the Children's Global Assessment Scale. Further analysis of the double-blind data is needed, but the results of the open-label phase are encouraging, author Dr. Jaswinder K. Ghuman said at a psychopharmacology conference sponsored by the University of Arizona.

"These children have many problems, so parents and teachers feel that any small improvement is worth it, even though the response is not as robust as in children without developmental disabilities," Dr. Ghuman said in an interview. "With a small improvement, they are more manageable in the classroom, and able to benefit from other psychosocial and educational interventions."

There were seven mild to moderate adverse events, including reduced appetite (in 2 patients), sleepiness or feeling tired (2), difficulty sleeping (2), and mood lability (1).

None of the events led to discontinuation of the medication but did lead to dose increases being limited, which may have made the response less robust, said Dr. Ghuman of the psychiatry department at the University of Arizona, Tucson, and director of its infant and preschool program.

Anecdotal reports have linked psychostimulants with a high frequency of adverse events. Children with autism may be more likely to respond to stimulants with irritability, mood lability, and worsening of stereotypic and repetitive behaviors, so care needs to be exercised in starting the children at a low dose, with relatively slower titration and frequent regular monitoring, she said.

In a recent separate, double-blind, placebo-controlled crossover study, adverse events led to the discontinuation of methylphenidate in 13 (18%) of 72 children with autism and hyperactivity (Arch. Gen. Psychiatry 2005;62:1266-74). Doses in the study were based on patient weight and ranged from 7.5 mg/day to 50 mg/day in divided doses.

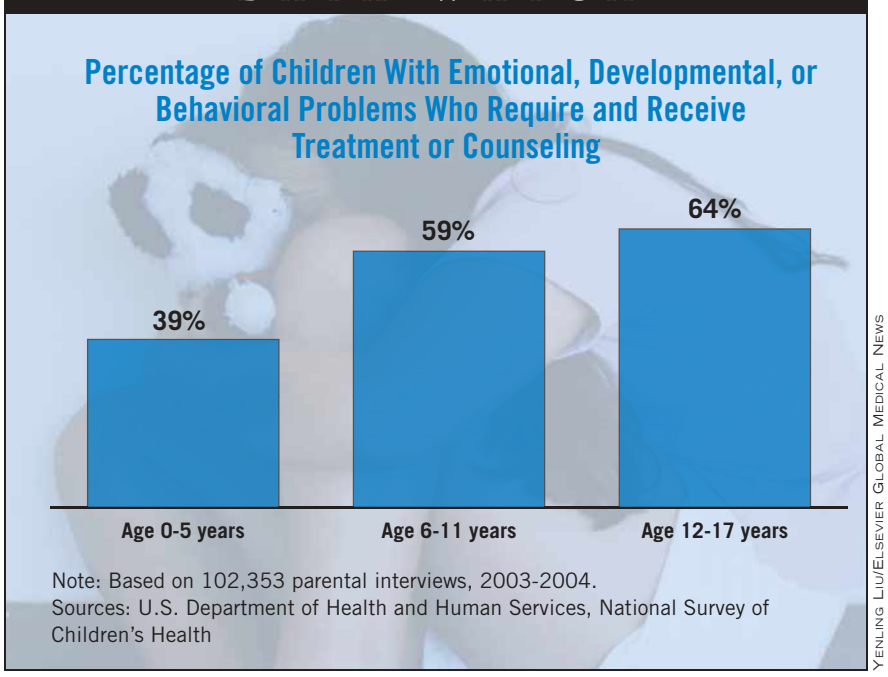
Methylphenidate was superior to placebo in reducing scores on the teacher-rated hyperactivity subscale of the Aberrant Behavior Checklist, with effect sizes ranging from 0.20 to 0.54 depending on the dose and rater.

Overall, 35 (49%) of the 72 children were classified as methylphenidate responders. The placebo response rate was 20%.

Popular belief is that children with a lower IQ and younger children do not respond as well to methylphenidate. But there was no difference in response because of IQ level below or above 50 points, a diagnosis of autism or Asperger's disorder, or age, which ranged from 5 years to 14 years.

Further study is needed to replicate these findings and to see whether they could be generalized to the everyday clinical setting, Dr. Ghuman said. ■

DATA WATCH



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