



## ADHD's toll

Research papers at AAP conference paint a picture of the disorder's debilitating social, educational and financial challenges

by **Sheryl Cash** • Correspondent

Eight research papers presented at an AAP conference on attention-deficit/hyperactivity disorder (ADHD) outline the tremendous social and academic challenges facing children with ADHD and the devastating financial toll on their families and society.

These works draw attention to the unmeasured, yet debilitating social, educational and economic aspects of ADHD. The papers have been compiled in a recent supplement to *Ambulatory Pediatrics* and are scheduled to appear in a special July issue of the *Journal of Pediatric Psychology*.

The "Measuring ADHD Outcomes Conference," held July 19-20, 2005, in Niagara Falls, Ontario, brought together a multidisciplinary group of approximately 40 ADHD experts, including pediatricians, psychiatrists, educators and economists, said James M. Perrin, M.D., FAAP, conference organizer and editor of the supplement *Measuring Outcomes in Attention-Deficit/Hyperactivity Disorder* (*Ambul Pediatr.* 2007; 7(Supplement S):57-144). Dr. Perrin also is past co-chair of the AAP Committee on Quality Improvement Subcommittee on ADHD.



Dr. Perrin

Publishing this research in journals reaching both pediatricians and child psychologists helps further the conference's goal — to help better define and measure ADHD outcomes. It also highlights the need for additional research and funding, and improved, coordinated care for children with ADHD.

### Striving for consensus on how to measure outcomes

"We recognized that there wasn't much agreement in terms of measuring ADHD outcomes," said Dr. Perrin. While some children with ADHD are measured by their core symptoms, such as hyperactivity, impulsivity and/or inattentiveness, "others are measured by how they are doing or functioning, usually in school."

"We needed to move toward a better consensus in the field," he said.

"Kids with ADHD do terribly badly in school," said Dr. Perrin. "They don't have minor problems in school, they have major problems. And these are not kids that other kids like or choose to be playmates with; they get left out."



Helping children who have attention-deficit/hyperactivity disorder (ADHD) with academic difficulties is only part of the issue, according to experts. These children also face social and peer problems that are not included in the definitional criteria for ADHD.

Children with ADHD do poorly in school regardless of how you measure their performance, said Heidi M. Feldman, M.D., Ph.D., FAAP, co-author of the paper, "Academic and Educational Outcomes for Children with ADHD: A Literature Review and Proposal for Future Research," and former member of the AAP Subcommittee on ADHD.

### How do we teach children with ADHD?

These children have poor grades, poor reading and math standardized test scores, and increased grade retention, according to Dr. Feldman's paper. "They also have more detentions and expulsions," she said. "Academically, they're in trouble."



Dr. Feldman

And yet, there are few recommendations and little research on how to teach children with ADHD appropriately.

"This is an area where we have plenty to learn," said Dr. Feldman. Pediatricians must work closely with school psychologists and educators to help children with ADHD succeed in school.

And while medication does improve the core symptoms of ADHD and can increase academic productivity, it does not improve standardized test scores or ultimate educational attainment.

"It's not enough to change the symptoms," said Dr. Feldman, professor of pediatrics at Stanford University. "The average time that kids stay on medication is two to three years. We don't know whether or not there would be a better outcome if the children were very carefully monitored and treated consistently."

### Social, peer problems add to the mix

Contributing to these academic difficulties are significant social



Dr. Hoza

and peer problems, said Betsy Hoza, Ph.D., professor of psychology at University of Vermont, and author of the paper, "Peer Functioning in Children with ADHD."

"Peer problems are not part of the definitional criteria for ADHD, and yet the majority of kids have them and they are really hard to get rid of," said Dr. Hoza, "even when these same children show improvement in other areas."

As these social/peer deficiencies are known predictors of future substance abuse, anti-social behavior, academic and other problems, not addressing them not only ensures "a huge price for society, but also for these individual children," said Dr. Hoza. "What is it like for them to be in school and on the playground every day?"

"Interventions have to occur in the settings where the problems occur," said Dr. Hoza. "It's hard to get insurance to cover school-based interventions that parents cannot afford. It's an area that slips through the cracks."



Dr. Pelham

William E. Pelham Jr., Ph.D., distinguished professor of pediatrics and psychology, and director of the Center for Children and Families, State University of New York at Buffalo, co-authored the paper, "The Economic Impact of Attention-Deficit/ Hyperactivity Disorder in Children and Adolescents." He said that many children with ADHD "often get swept under the rug because their problems are distributed among so many sectors of society."

ADHD results in big costs in school, mental health, juvenile justice and primary care settings, said Dr. Pelham.

Often, each setting blames the other for inadequate care of the

ADHD child, said Dr. Pelham. "Insurance says 'we don't cover school-based consultation, it's the school's problem'; mental health experts say 'we don't work in the classroom, it's the teacher's problem.' The parents end up getting bounced around like a ball between these sectors."

Dr. Pelham's paper reviewed 13 studies on the per-child cost of ADHD, including health, educational and juvenile justice costs. There was very little information available on the mental health costs of ADHD, said Dr. Pelham, and none on the costs incurred by the child's family.

#### 'Cost of illness' is substantial

With the limited information available, Dr. Pelham estimated the annual cost of illness for ADHD is \$14,576, a "substantial cost comparable to that of a stroke or major disease."

"People don't think of ADHD in the same terms as a stroke, but they should," said Dr. Pelham.

Dr. Perrin said the published research presented at the conference will lead to a new understanding of the disability of ADHD in young children and assist the Academy in revising its clinical practice guidelines: *Treatment of the School-Aged Child with Attention-Deficit/Hyperactivity Disorder* (*Pediatrics*. 2001;108:1033-1044) and *Diagnosis and Evaluation of the Child with Attention-Deficit/Hyperactivity Disorder* (*Pediatrics*. 2000;105:1158-1170). Both guidelines are under review.

Dr. Feldman said she hopes the papers and conference set the tone for future dialogue on ADHD issues, attract the attention of potential funders interested in children's mental health and behavioral outcomes, and result in the creation of interdisciplinary teams to approach these issues.