Report Concludes ADHD is *Not* Over-diagnosed.

By Lisa Horan

There is "little evidence of widespread over-diagnosis or misdiagnosis of over-prescription of methyl-phenidate by physicians," declares a report published in the Journal of the American Medical Association (JAMA, April 8, 1998). Conducted by the AMA's Council on Scientific Affairs, the report is based on a review of all English-language studies examining children from elementary through high school age. Its findings repudiate allegations and public concern that "the diagnosis [of ADHD] is merely applied to control children who exhibit unwanted behaviors."

The number of children and adults who have been diagnosed with ADHD and treated with methylphenidate has risen significantly over the past decade. This increase has spurred concern that the diagnosis is made too frequently and without merit and that methylphenidate, which accounts for more than 90 percent of stimulant use to treat ADHD in the U.S., is being prescribed too often to treat these children. According to the report, however, the increase in the diagnosis and treatment of ADHD can be attributed mainly to an "increase in the recognition of the disorder and a refinement of the diagnostic criteria," which has resulted in more girls being diagnosed and an expanding appreciation of the persistence of ADHD into adulthood.

"**A** review of the literature shows that the United States is actually on the lower end of the prevalence range across the world," says Myron Genel, M.D., a professor of pediatrics at Yale University School of Medicine, and co-author of the report. Germany, for example reported a prevalence rate of 9.6 percent, New Zealand reported 6.7 percent, and Puerto Rico reported rates as high as 16.1 percent. Studies conducted in the U.S. using similar criteria, on the other hand, range from only 2.6 percent in Pittsburgh to 7.3 percent in Tennessee. "Based on these data," says Genel, "it's hard to draw the conclusion that there's an over-diagnosis in the U.S."

Similarly, on the issue of methylphenidate use, the Council found "no evidence in the literature to support concerns regarding abuse," said Genel, though he acknowledged that there is a "potential" for abuse with any drug. While stimulants, as a class, have a marked abuse potential, they vary in their ability to induce euphoria and, therefore, in their probability for abuse. Reports of methylphenidate abuse by patients with ADHD or their families have been rare, with only four total cases reported in the studies. The Council describes this figure as "quite remarkable in light of the population exposed."

What the literature did show was that methylphenidate and other stimulant medications used to treat ADHD are "unequivocal" in reducing symptoms of hyperactivity, impulsivity, and inatentiveness; improve classroom behavior and academic performance; reduce oppositional and aggressive behaviors; and promote more positive relationships with family, teachers, and peers over the short-term.

"**W**hile we found that methylphenidate is effective in treating many patients, we also concluded that pharmacologic therapy alone is not ideal. Instead, we endorse a multi-modal treatment approach that integrates medication therapy with environmental, educational, and psychotherapeutic approaches," said Genel.

"**T**he AMA's report is a very important and timely research summary, coming at a time when many layman, especially journalists writing for the popular media, and even some professionals, have questioned whether clinicians in the U.S. are over-diagnosing ADHD and over-prescribing stimulants for its management," said renowned ADHD expert, Russell Barkley, Ph.D. "The report serves to effectively counter such folklore, built largely upon mere personal anecdote and speculation, with actual evidence from scientific studies published to date on these issues."

These studies also showed that as much as 65 percent of children with ADHD will have one or more comorbid condition at some point in their life. Bipolar disorder, Tourette syndrome, and learning disorders were among the conditions that commonly co-occur with ADHD, based on the literature, and the presence of ADHD at any age was found to increase the risk of behavioral and emotional problems. In fact, "one study suggested that 10 to 20 percent of children with ADHD developed mood disorders, and 20 percent developed conduct disorders," Genel recalls.

Moreover, a review of follow-up studies of children with ADHD and studies of adults who were subsequently diagnosed with ADHD indicated that the disorder persists into adulthood in many cases. "The literature suggests that symptoms of ADHD do continue into adulthood, but on average, these symptoms appear to diminish by about 50 percent every five to ten years with hyperactivity declining more quickly than impulsivity or inattentiveness," explained Genel.

The report represents a victory for CHADD and all people with ADHD and their families, as it negates widely-held myths and inaccurate portrayals of the disorder. Why has ADHD been the subject of such scrutiny? The Council believes three aspects of the disorder, itself, are partly responsible: (1) the diagnosis is based solely on patient history and behavioral assessment without the availability of laboratory or radiologic confirmation; (2) it has an early onset and extended course and therefore often requires treatment of children and adolescents over many years; and (3) treatment often includes stimulant medications, which have been associated with the potential for abuse.

"[**T**hese factors] make it hard for people to put it into perspective and accept," says Dr. Genel. "When I was in medical school almost forty years ago, the diagnosis of coronary heart disease was made in the same way the diagnosis of ADHD is made today: using 'descriptive' criteria. We didn't have stress tests and fancy equipment to pre-diagnose the disease, but people accepted the diagnosis. When it comes to ADHD, however, people tend to have an innate suspicion of what's essentially a behavior disorder and are therefore less willing to accept the diagnosis."

The concern surrounding children taking medications for lengthy periods of time, the dramatic increase in methylphenidate use during the past decade, and the "highly inflammatory public relations campaigns and pitched legal battles...that seek to label the whole idea of ADHD as an illness a 'myth,'" were other factors the Council charges with instigating public debate.

"**T**he American Medical Association has confirmed what CHADD has been saying to its members and others for a long time," said CHADD President, Sheila Anderson. "As the report points out, highly inflammatory public relations campaigns that label ADHD as a 'myth,' and the use of medication as a form of 'mind control,' have created serious misperceptions about the existence, prevalence, and treatment of the disorder. We are very pleased that the AMA study refutes those irresponsible claims with scientifically-based, objective data."

While the AMA report is clearly a step in the right direction, authorities concede that it will not eradicate concern and inaccurate depictions of ADHD in the media. "Unfortunately, there will always be a stigma attached to diagnosing a 'mental' disorder based solely on behavior and description, so, some controversy will remain until a more definitive test is available for diagnosing ADHD," Dr. Genel stated.

Dr. Barkley agrees. "While progress has been made, this AMA article makes it clear that we as professionals and CHADD members still have a long way to go in getting the majority of children and adults with ADHD properly recognized, diagnosed, and treated." A Lisa Horan is a writer/editor who works with non-profits and private companies. She is the managing editor of ATTENTION!®

Recommendations

The following statements, recommended by the Council on Scientific Affairs, were adopted as AMA policy at the 1997 AMA Meeting.

1. The AMA encourages physicians to use standardized diagnostic criteria in making the diagnosis of ADHD, such as the American Psychiatric Association's DSM-IV, as part of a comprehensive evaluation of children and adolescents presenting with attentional or hyperactivity complaints.
2. The AMA encourages the creation and dissemination of practice guidelines for ADHD by appropriate specialty societies and their use by practicing physicians and will assist in making physicians aware of their availability.
3. The AMA encourages efforts by medical schools, residency programs, medical societies, and continuing medical education programs to increase physician knowledge about ADHD and its treatment.
4. The AMA encourages the use of individualized therapeutic approaches for children diagnosed as having ADHD, which may include pharmacotherapy, psychoeducation, behavioral therapy, school-based and other environmental interventions, and psychotherapy as indicated by clinical circumstances and family preferences.
5. The AMA encourages physicians and medical groups to work with schools to improve teachers' abilities to recognize ADHD and appropriately recommend that parents seek medical evaluation of potentially affected children.

6. The AMA reaffirms Policy 100.975, to work with the FDA and the DEA to help ensure that appropriate amounts of methylphenidate and other Schedule II drugs are available for clinically warranted patient use.