



REGIONAL DISCREPANCIES FOUND IN TREATMENT FOR ADHD

By Kelly Mills

The subject of attention deficit hyperactivity disorder (ADHD) raises controversial questions: Are the nation's children overmedicated or undermedicated for the disorder? Which children should be treated? Is ADHD generally underdiagnosed or overdiagnosed? What happens to children with ADHD who go untreated? These issues have been debated for years by researchers and pundits, with no signs of cultural consensus any time soon. In 2003, a team of researchers, led by principal investigators **Richard Scheffler**, Distinguished Professor of Health Economics & Public Policy and director of the School's Nicholas C. Petris Center on Healthcare Markets & Consumer Welfare, and **Stephen Hinshaw**, chair of the UC Berkeley Psychology Department, were awarded a grant from the National Institute of Mental Health to look at a number of aspects of the diagnosis and treatment of ADHD.



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Research to Action: Parents Kit Helps 500,000 California Families

The School of Public Health has made a major contribution to translate research into a large-scale effort to support new parents and their children. Professor Linda Neuhauser and her team at the School's Health Research for Action center developed the *UC Berkeley Parents Guide*, an easy-to-use resource providing evidenced-based advice and community referrals for a healthy pregnancy and caring for babies and children. The *Parents Guide* is part of the *Kit for New Parents* (funded by a tax on tobacco) that is distributed free to 500,000 families each year by the state of California's First 5 Children and Families Commission. The kit contains videos and other materials for parents and is available in English, Spanish, Chinese, Vietnamese, and Korean.



Neuhauser's group has also conducted longitudinal research on the impact of the English and Spanish *Kit for New Parents*. Results showed that 87 percent of the parents who received a kit used it and highly valued the resource. The study found that parents who used the kit significantly increased their knowledge about how to have a healthy pregnancy and care for their child from birth to age five, compared with parents who did not receive a kit. Likewise, parents who received the kit had better parenting practices related to feeding their infants, making their homes safer for children, reading to their children, and obtaining child health insurance.

The Health Research for Action group has helped to adapt and extend this successful kit model to other states. Statewide initiatives using this model, including customized versions of the *UC Berkeley Parents Guide*, have been developed and implemented in Alabama, Arizona, Kentucky, and Pennsylvania, reaching another one million families. School of Public Health collaborators on the *Kit for New Parents* project include Shelley Martin, Katherine Simpson, Norman Constantine, S. Leonard Syme, and Karen Sokal-Gutierrez.

In California, parents can order a free *Kit for New Parents* by calling 1-800-KIDS-025 (English), or 1-800-50-NINOS (Spanish).

ADHD..., CONTINUED

ADHD is the most commonly diagnosed behavioral disorder in children; in fact, one out of every 12 children is diagnosed with ADHD. However, the rate of diagnosis and treatment with psychostimulant medications such as Ritalin and Adderall varies widely among regions and communities. Scheffler and other researchers at the Petris Center are examining the factors—economic, social, and policy-based—that account for the variation in medication use.

Clearly biological differences cannot account for the discrepancies in the diagnosis and treatment of the disorder, and in fact, the researchers have found a number of environmental factors linked with higher use of medications. In a paper released in 2005, they demonstrated that U.S. counties with a higher median income, a greater number of physicians per patient, and a higher student-to-teacher ratio were more likely to have above-median rates of psychostimulant use. These areas also had a higher per capita income, a larger population, and lower unemployment rates.

Variations in medication use rates also vary among states. California has a low use rate for psychostimulant treatments, “for many reasons—and they could be good or bad,” says Scheffler. He and his team are examining the reasons behind the state's low use rate. One possible factor is that some populations may avoid medication treatment more than others. Learning more about how ADHD is diagnosed and treated has many implications for the health of children and of the state, since

ADHD has been linked to many social problems, such as a higher school drop-out rate, and illegal substance abuse.

Kaiser Permanente has also been a partner in the research. A team led by researcher **G. Thomas Ray** found that children in the Kaiser system who had not yet been diagnosed with ADHD had significantly higher medical costs, particularly in the year prior to diagnosis, than children who did not have ADHD. Costs in the two years following diagnosis were also markedly higher. Among children with ADHD, Asian Americans, African Americans and Hispanic Americans had lower yearly costs for ADHD medications compared with white Americans, and Asian Americans had overall lower spending on ADHD services than white Americans. The ethnic differences in medical services utilization may be due in part to differing levels of cultural acceptance regarding the diagnosis and treatment; however, more research is needed in this area.

Scheffler is looking at ADHD as a “worldwide phenomenon.” He states that in a few years, ADHD medications will be the number one pharmaceutical treatment for children worldwide. “There is a two- to three-billion-dollar industry for ADHD drugs, and it’s growing” says Scheffler. “Ten years ago, about twenty-two countries had these medications. Now there are 50 countries.” As diagnosis and treatment of the disorder spreads around the globe, researchers at the Petris Center continue to identify the factors that result in medication for some children, and none for others.



According to Hinshaw, the stakes are high, as “ADHD is a real condition, which occurs cross-culturally and with a substantial genetic contribution. But without careful diagnosis and careful monitoring of treatment strategies, some children with ADHD will be

missed and other children with problems that are related to family and school issues will receive unneeded and potentially deleterious pharmacologic treatments.” Future trends in this area are of major conceptual, clinical, and policy-related importance. 🌱

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