

Kids on drugs part 2: blaming the brain and genes

In my practice of behavioral pediatrics I regularly meet children under 13 on two psychiatric medications. A 5-year-old girl troubled by fears had tried eight different psychoactive drugs over the year before she saw me. I met the mother of a 29-month-old boy who wanted me to prescribe medication. I didn't, but later I learned the boy was getting lithium, Zoloft and Risperdal from another doctor.

Is this cutting-edge treatment or an outrage? I'm not sure. But with three or four exceptions, none of these drugs, alone or in combination, has been shown to be effective for a specific psychiatric condition in children. Outside of the stimulants and old-line anti-psychotic group, only two of the most frequently prescribed medications, Luvox and Zoloft, have been studied sufficiently to obtain the Food and Drug Administration's approval for psychiatric use in children. Only a handful more have been examined systematically to eliminate the placebo effect, which has a particularly powerful influence in psychiatric conditions and in children. None of the newer medications has been studied beyond a few months for efficacy or side effects, and no one has looked at their effects on children's growth and development.

Until recently the recondite and rarified worlds of academic child psychiatry and psychology have largely supported the increased use of these medications. Joseph Biederman, chief of Harvard's pediatric psychopharmacology clinic, hails the increased use of psychiatric drugs in children as evidence "that child psychiatry is finally catching up to adult psychiatry" in psychopharmacological practice.

Other leaders in the field of child psychiatry are not as sanguine. Michael Jellinek, who as the head of child psychiatry at Harvard is effectively Biederman's boss, and Peter Jensen, who recently stepped down as director of child and adolescent research of the National Institutes of Mental Health, have both publicly worried whether physicians' prescribing practices for children have outstripped their scientific substantiation. They are also concerned that not enough is being done about the world these troubled children live in.

It's Johnny's Brain: The Triumph of Biological Psychiatry in America

What makes America so different from the rest of the world in how it views and treats children's emotional and behavioral problems? Perhaps no other profession fell so completely under the sway of Freudian ideas as American psychiatry and psychology did in the first 60 years of the 20th century. Yet by the late 1960s critics both within and outside of American psychiatry had doubts about psychoanalysis as a science and as an effective treatment. In the 1950s drugs like lithium, Thorazine and Elavil, found to be useful in alleviating psychiatric symptoms, further challenged the Freudian hegemony on psychiatric thinking and practice in this country.

By the 1970s research and academic psychiatrists fomented an internal revolution culminating in 1980 with the publication of the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III). The DSM III replaced the old Freudian diagnoses, which were based on traumatic childhood experience, with etiologically neutral lists of symptoms collected into supposedly definable syndromes. DSM III was meant only to be descriptive and used primarily for research. Few outside of an inner circle of research psychiatrists knew of a paragraph in the introduction, deleted at the last moment (ostensibly to maintain etiological neutrality), that said the presumptive cause of most of the disorders listed was biological, that is, the result of heredity or a chemical imbalance.

It really didn't matter what was written, because over the next 10 years American academic psychiatry shifted 180 degrees from blaming Johnny's mother for all his problems to blaming Johnny's brain and genes.

The introduction of Prozac in the late 1980s cemented America's belief in the biological basis for abnormal behavior. Prozac was no more effective than earlier antidepressants but had less severe side effects, which allowed greater numbers of less severely disabled people to continue to take the drug. A logic developed that if a drug improved behavior, the problems must be biologically based. No one speaks of headache as an "aspirin deficiency" even though the drug relieves the symptoms. Nevertheless terms like "chemical imbalance" became increasingly fashionable in explaining problem behavior.

Media exaggeration of scientific findings contributed to the revolution. The acceptance of Prozac made taking a psychotropic drug no longer taboo; it became the topic of dinner-party conversation. Nearly one in 10 Americans has taken Prozac or one of its close drug relatives. With so many adults taking a drug for mood, it didn't take long for the primary drug for children's behavior, Ritalin, to zoom in use.

Ritalin production and use for the treatment of ADHD rose by more than 700 percent between 1991 and 1998. Amphetamine production also used for ADHD initially lagged but has tripled in use since 1996. Trade amphetamine (primarily Adderall) surpassed trade Ritalin prescriptions in 1998, a testament primarily to the marketing success of the manufacturers of Adderall.

As Prozac opened the door for Ritalin use in children, Ritalin itself ushered in a new "better children through chemistry" age in our country. At least Ritalin had been the most studied of pediatric drugs, though only a handful of the thousands of studies look at patients other than boys or monitor the children beyond a couple of weeks. Meanwhile research on other psychotropic drugs for use in children has been limited. Until recently, funding for studies of psychiatric medication in children was meager by adult comparisons. Questions about children's rights and consent to participate in studies raised thorny ethical issues, and the pharmaceutical industry did not believe there was much of a market for these drugs in children and so it did not fund studies.

Ironically, the new belief in a robust market for psychotropics in children has fueled a host of pending studies of different drugs for different child psychiatric conditions.

The community of pediatric psychopharmacology researchers is rather small; Biederman's Harvard program has been arguably the most productive and influential. His work stands as prototypic of children's psychiatric research under the DSM (now in its fourth edition) and demonstrates how a drug becomes established in the pediatric psychiatric pharmacopea. His research has won awards and his professional publications are prolific.

Biederman's group demonstrated in the late 1980s that the tricyclic antidepressants (their chemical structure contains three "rings") imipramine and desipramine, abandoned as a treatment for childhood depression because studies had shown them to be ineffective, could be used in high doses to successfully treat children with ADHD who had failed to respond to stimulants. In 1996, the Harvard clinic published a paper that said that 23 percent of their ADHD children also "had" bipolar disorder. (Most child psychiatrists believed manic depression to be a rare disorder in children.)

The Harvard group had always found higher rates of co-occurrence or "co-morbidity" of other disorders in their ADHD patients, but this rate of bipolar disease in children astonished the world of academic child psychiatry.

Biederman further claimed he could diagnose manic depression in children as young as 3. Few of these children demonstrated the classic signs of mania, euphoria or grandiosity. They did not have distinct periods of several weeks or months between their highs and lows. These children could cycle on a daily basis. They were very angry, very irritable kids.

Few of these kids were crazy. They could distinguish reality as long as they weren't enraged. They were very unhappy and very difficult to control. But Biederman felt that children diagnosed as bipolar could be saved from a lifetime of antisocial behavior and substance abuse by aggressively treating them with medication.

The presumed hereditary and biochemical nature of bipolar disorder would justify the use of a new class of drugs known as mood stabilizers: lithium, Depakote, Neurontin -- all drugs with far more serious short- and long-term side effects than Ritalin.

The response from other academic researchers was mixed. Debate goes on in the professional journals over the definition and frequency of bipolar disorder in children. One psychiatrist commented cynically that "Ritalin is for irritable and irritating children while lithium is for very irritable and very irritating children." The practical effect, though, of the announcement of this new interpretation of pediatric bipolar disorder, was that these medications began to be used in very young children without even short-term evidence of their effectiveness and safety.

Of late, the new anti-psychotic drug, Risperdal, has been touted by the Biederman group as more effective than mood stabilizers in controlling the symptoms of bipolar children. Risperdal's ascendancy as the drug of choice has not been slowed by a different set of more serious disabling side effects.