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ADD for All

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When I see these prevalence rates going up to fifteen—almost twenty percent in the adolescent male population—I can't believe that represents real cases of ADHD. But how does that get there?" This is the million-dollar question, and raised by no less an establishment figure than the psychologist C. Keith Conners. One of the early pioneers and leading lights in the study of children's hyperactivity and attention problems, Conners is best known as the author of the Conners Comprehensive Behavior Rating Scales, the most common symptom instruments used by doctors in evaluating children for ADHD. At the 2015 meeting of the American Professional Society of ADHD and Related Disorders, he attended a seminar on "Measuring ADHD Prevalence—Controversies About Overdiagnosis," and when the panelists were finished, asked his question. For the umpteenth time, the specter of overdiagnosis was raising its head and Conners, arriving late to the controversy, wanted to know how the number of kids diagnosed could have risen sky high.

ADHD Nation: Children, Doctors, Big Pharma, and the Making of an American Epidemic
By Alan Schwarz
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The "almost twenty percent" figure for adolescent boys cited by Conners comes from the National Survey of Children's Health (NSCH), a nationally representative survey of parents. A 2014 study based on recent NSCH data found that 11 percent of American children between the ages of 4 and 17 had at some point in their lives been diagnosed with ADHD—including one in five among high school boys. That works out to 6.4 million children and adolescents. Of these, 83 percent (8.8 percent of all children) reported "current ADHD," and some 3.5 million (6.1 percent of all children) were taking a stimulant medication, like Ritalin or Adderall, at the time of the survey.

"But how does that get there?" It's not the first time the question has been asked. The controversy over medicating kids for behavioral problems goes back nearly half a century, first sparking public alarm and congressional hearings in 1970. In his testimony at that time, Dr. Leo Hollister, a distinguished psychiatrist and biomedical scientist, wondered about the prevalence estimates—which

ranged from about 5 percent to as high as 20 percent—of hyperactivity in American children. "That a disorder," he observed, "usually believed to be relatively uncommon should suddenly become a major affliction of childhood is a mystifying matter.... We seem to have a plague of hyperkinetic children on our hands." Rare hyperkinetic behavioral disorders had long been recognized, and, as one paper showed, under at least 38 names, including hyperkinetic impulse disorder and minimal brain disorder. In the early 1960s, pharmaceutical companies started marketing to doctors stimulant medications to treat these conditions. When reports of elementary school children being treated with "behavior modification" drugs, including Ritalin and Dexedrine, began hitting the press in 1970, a vigorous dispute was enjoined. One critic, writing in the *New York Review of Books* that year, accused doctors who prescribed the drugs of "fashionable quackery."

In 1970, estimates—there were no data from national surveys—suggested as many as 150,000 children were taking stimulant medications, ostensibly for hyperactivity. The numbers would increase over the decade, but a change in 1980 set the growth trajectory on a new course. In a completely revised third edition of its *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-III*), the American Psychiatric Association introduced a new hybrid diagnostic category, "attention deficit disorder" (ADD), which included the subtypes "with hyperactivity" and "without hyperactivity." The new category (later renamed "attention deficit/hyperactivity disorder," ADHD) was defined in terms of cognitive deficits in sustained attention and impulse control, a definition that precisely mirrored the deficits that stimulant medications were believed to reduce. Hyperactivity, which had always been the defining feature of the earlier categories, was made an optional symptom of ADD. This "drug-induced" model of a disorder, to borrow a concept from Hollister, dramatically enlarged the scope of medicalized behavior, and cemented the link between the disorder and stimulant treatment.

The number of children diagnosed with ADHD increased to more than 900,000 by 1990, with some 560,000 on stimulant medications. The growth has continued straight up ever since. And from the mid-1990s, diagnosed children have been joined by a rapidly expanding number of adults diagnosed and treated with drugs as well. For instance, prescription data from a large drug-management company show that by 2012 women ages 19 to 25 had a higher rate of ADHD medication use than girls ages 4 to 18. Estimates vary, but some surveys have found that as many as one third of students on some college campuses have tried Adderall or another stimulant without a prescription.

At every turn, epidemiological reports of the surging numbers have generated controversy. Already by 1975 there was talk of a problem "beyond epidemic proportions," with debate, outrage, and passionate opinions expressed not just in the press, where gallons of ink have been spilled in the so-called "Ritalin Wars," but in the courts and the halls of Congress, clinics and schools, academic articles and popular books, professional seminars and investigative documentaries, parent/professional advocacy groups and anti-psychiatry websites, and elsewhere.

Interestingly, throughout the years of discontent both the lay public and many professionals have often been sharply critical of the high numbers of diagnoses and prescriptions. Studies of the general public typically find concern about ADHD misdiagnosis, skepticism toward the use of psychiatric medication, and a favorable view of non-medication approaches to treatment. Even surveys and interviews with parents of children diagnosed with ADHD or at risk of being diagnosed find similar concerns and skepticism.

Many mental health professionals express the same disquiet. ADHD and medication treatment are fraught with considerable clinical uncertainty and are controversial among clinicians. Some of the leading professionals have been among the sharpest critics. In 2010, David Kupfer, the chair of the task force overseeing the production of the fifth edition of the *DSM*, said that the thresholds for ADHD in the then-current fourth edition (*DSM-IV*) "are too low." The result, he said, has been an "unreal" epidemic of the disorder. That judgment is actually shared in part by the chair of the *DSM-IV* task force, Allen Frances, who has since become an outspoken critic of "out-of-control psychiatric diagnosis." In his 2013 book *Saving Normal*, Dr. Frances argued that the "wildfire" spread of ADHD constitutes a "false" epidemic, with much of the disorder's increased prevalence the result of "the 'false positive' misidentification of kids who would be better off never receiving a diagnosis." Repeating the familiar question, he asked, "How could this possibly happen?" How indeed.

Over the decades, many attempts have been made to account for the growing medicalization of children's behavioral and attentional problems and the steadily climbing drug use. Not everyone, of course, then or now, sees a problem in these developments. One conventional medical explanation is that the rising diagnostic rates simply represent greater disorder awareness and screening. The actual incidence of disorder, in this view, is not going up, nor is there any significant over-diagnosis; rather, better identification is finally bringing the number of those diagnosed into alignment with

the true prevalence of the condition. This was the conclusion, for instance, of the Council on Scientific Affairs of the American Medical Association in a 1997 report that looked back as far as 1975 to address the pressing question of "public and professional concern regarding possible overprescription" of ADHD medications. The Council reviewed "issues related to the diagnosis, optimal treatment, and actual care of ADHD patients" and found "little evidence" of any widespread problem with diagnosis or prescription patterns. Even in the face of the current higher rates, that argument continues to be made.

Many observers, however, have been less sanguine. The most critical, such as psychiatrist Peter Breggin in *Talking Back to Ritalin* (1998), have argued that ADHD has no scientific validity. The diagnosis and drugging, in this view, are simply new strategies for the control of unruly children. From a completely different angle, the physician Richard Saul argues in *ADHD Does Not Exist* (2014) that all the many symptoms currently associated with the category of ADHD can better be accounted for by some twenty other conditions, from poor eyesight and sleep disorders to learning disabilities and depression. ADHD is being falsely diagnosed and wrongly treated in every case because it is not a separate disorder at all.

A more common position has been to accept some medicalization of these problems and grant that there are legitimate cases, but then posit some key *social* factors to explain overdiagnosis and overtreatment. The first critical book, *The Myth of the Hyperactive Child*, by journalists Peter Schrag and Diane Divoky, took this approach way back in 1975. Since then many others have done so as well. Pediatrician Lawrence Diller, in his influential *Running on Ritalin* (1998) and more recent *Remembering Ritalin* (2011), struck this balance, as have such recent works as *The ADHD Explosion* (2014) by psychologist Stephen Hinshaw and health economist Richard Scheffler, and psychotherapist Marilyn Wedge's *A Disease Called Childhood: Why ADHD Became an American Epidemic* (2015).

Across this considerable literature, the social factors commonly identified as contributing to the ADHD spike include:

• Drug development (both new and longer-acting formulations) and pharmaceutical-promotion efforts, including advertising and sponsored research. (Schwarz notes that the pharmaceutical executive who coined the name Adderall did so by toying with words to convey his all-inclusive ambitions: "ADD for All.")

• Relatedly, the rise of patient-advocacy groups (notably Children and Adults with Attention-Deficit/Hyperactivity Disorder, or CHADD) sponsored by the drug companies, and the use of physicians as "key

opinion leaders" to give talks and otherwise engage in surreptitious peer-to-peer marketing.

• Government regulatory actions, such as the expansion of Supplemental Security Income and the Individuals with Disabilities Education Act to include coverage of ADHD and mandate screening for all disabilities.

• Teacher accountability laws, requiring assessments of schools and teachers on the basis of high-stakes exam results.

• Trends in medical practice, particularly changes to the *DSM* and the advent of managed care, which instituted cost-cutting, shorter doctor-patient appointments, and preference for medication over psychosocial interventions.

• Extensive but generally one-sided reporting of medical success stories in the media.

• General characteristics of our fast-paced, high-pressure, technologically over-stimulated, and consumer-oriented society that adversely affect students, schools, and parents.

Nearly every critical discussion of the social dynamics involved in the rise of ADHD diagnosis and treatment includes some mix of these contributing factors.

In *ADHD Nation*, Alan Schwarz weaves some of these same factors into his detailed and sharply written account of the ADHD and stimulant-medication drama. An investigative reporter for the *New York Times*, Schwarz is best known for his extensive coverage of concussions in sports. From 2012 to 2015, he also wrote a series of important articles in the *Times* on ADHD diagnostic trends, illicit stimulant use by high school and college students, direct-to-consumer advertising of ADHD medications, and professional regrets about the poor design and interpretation of a crucial government-sponsored ADHD-treatment study (the so-called MTA study) that purported to find that stimulant medication by itself yielded better outcomes than behavioral or combined interventions. From his articles, readers of the *Times* will also have been exposed to some tragic stories of addiction behind the statistics. Schwarz makes such stories a central thread of his engaging book.

In Schwarz's narrative, the primary factor behind the epidemic is profits, of Big Pharma and the "ADHD industrial complex." As he tells it, most of the really important things that have gone wrong flow from pharmaceutical companies and entrepreneurial doctors, and the blithe disregard they have fostered toward the dangers of stimulant drugs. Schwarz documents the many direct and indirect connections between industry money and faulty, self-affirming scientific research, CHADD, continuing medical education, the high-profile

experts and "key opinion leaders," celebrity patients, and other promoters. He gives substantial treatment to the relentless marketing of stimulant medications, from bestselling books by doctors to glossy medical-journal ads and ubiquitous direct-to-consumer marketing on the airways. All these, he argues, have peddled misleading claims and seductive promises. With scare tactics and seemingly quick, no-fault solutions, they have incited distraught and harried parents to act, and doctors—many "lazy," most well-meaning but poorly trained—to comply.

Schwarz also has critical things to say about a complacent and culpable news media, too quick to parrot P.R. flacks and hype new studies without waiting to see if the findings hold up. To the other commonly cited factors, however, he gives only passing attention: government regulatory actions, trends in medical practice (including the role of the *DSM*), and broader features of our competitive society and its regime of the self all escape largely unscathed.

ADHD Nation should be read less as another exposé—though it certainly has some exposé-like qualities—than as a wake-up call for reform within psychiatry. On my reading, this is why Schwarz tells the story in the way that he does. Optimistic of top-down reform, he aims to get a hearing within psychiatry by staying within the medical model of the disorder and identifying the culprits as industry, a few prominent bad apples, and the lack of training that pediatricians and family-medicine doctors have in this area. His goal is to reaffirm the field's expertise, agency, and responsibility for ADHD, while showing it how it has fallen down on the job.

Schwarz does not challenge the medicalization of children's behavioral problems—ADHD "is real," he writes in the very first sentence. "Don't let anyone tell you otherwise." He does not challenge the definition of ADHD in terms of "abnormal brains." For genuine sufferers, all the talk about our competitive society or media overload or classroom sizes is largely beside the point. He does not contest the use of stimulant medications, at least when prescribed after a thorough assessment for ADHD. The drugs, he stresses repeatedly, can accomplish "wonders," and he doesn't see any evidence that they are a danger to those properly diagnosed and monitored. He does not even oppose the medical and Big Pharma juggernaut driving the ADHD industrial complex. He accepts it so long as it stays within the proper, medically defined bounds.

The problem for Schwarz, the whole problem, lies in the misdiagnosed cases, the cases that lie beyond the proper diagnostic boundary. Drawing that boundary requires some fairly clear-cut way to distinguish between those with and without the disorder.

Schwarz believes psychiatry already has the proper tools, its best-practice guidelines. Nothing is perfect, he argues, but with these guidelines good doctors make correct diagnoses all the time. This is why he is optimistic of reform. Psychiatry knows what ADHD is and knows how to identify it.

That knowledge, Schwarz believes, also means the field has a pretty accurate idea of exactly how prevalent the condition really is. It is 5 percent of children, which is the number that appears in the fifth (and current) *DSM*. This, he writes, is what "the experts, after great, consensus-building deliberations, have decided is a fair approximation," an estimate, he claims, that is nearly as good as a biomarker: "If there were a telltale blood test . . . to give to every child . . . that is how many would probably qualify." By embracing a 5-percent prevalence rate, Schwarz can argue forcefully that an epidemic exists, and can even define its scope. The real epidemic, he argues, is in the overdiagnosis—in the difference between the actual prevalence, 5 percent, and the rate of diagnosis. The rate of diagnosis, according to the NSCH data mentioned above, is 11 percent of children, a figure that Schwarz bumps up to 15 percent by estimating the diagnoses that might happen in the future when children, who at the time of data collection were still young, would reach the prime diagnostic ages. This gives a nice, clear picture of a national problem—"*three times* the consensus estimate"—which only the "obtuse" could fail to see.

As noted earlier, many psychiatrists, including some of the field's leaders, recognize that there is a problem. Regular clinicians too, in my experience, freely grant it. In an unpublished study of articles about ADHD in popular media between 1968 and 2006, a colleague and I found that discussions of overdiagnosis were documented most of the time with concerns expressed by recognized experts. We concluded: "These data suggest that popular media writing about the professional mishandling of ADHD is not inconsistent with but rather reflects worries shared by many mainstream experts." Schwarz himself chides psychiatrists for believing that there is still some *under*diagnosis of ADHD; yet their common formulation of the national situation, as he shows, begins by acknowledging overdiagnosis in some populations. The statistics, especially rates of diagnosis that approach 30 percent among boys in some southern states, are a little hard to defend.

Acknowledging overdiagnosis is one thing. Believing that it's worth worrying about is another. That is the greater challenge with psychiatry. Many in the field seem to view overdiagnosis (of a whole range of conditions, not just ADHD) as a necessary but small price to pay for getting to the real sufferers. I heard this

again recently after a talk I gave at a psychiatric hospital. The clinician I spoke with was perfectly willing to acknowledge that a lot of the distress I described was being mislabeled and treated as mental illness. But, he said, "I don't care." What is really important, in his view, is the question of whether we are reaching those who need help. Besides, he reasoned, even if a patient is "subthreshold" for the diagnosis, medication might very well be of help. No harm, no foul.

That sort of *comme ci, comme ça* attitude toward drugs is Schwarz's real target. While he talks at length about the overdiagnosis of ADHD, his driving concern is with the overuse of prescription stimulant medications. The two phenomena are related, of course, but not in the one-to-one way that Schwarz seems to want the reader to believe. He writes as though a diagnosis almost always leads to, and thereafter continuously involves, a filled prescription. He knows that it does not. For instance, in the NSCH data that Schwarz depends on to demonstrate overdiagnosis, the number of children reported by parents to be diagnosed with ADHD rose by two million between 2003 and 2011, while in the same time period the number reported to be on medication rose by one million. Overall, the national diagnostic rate was 11 percent of children in 2011, while the medication rate was 6 percent. That's a significant difference, and one that complicates Schwarz's too-neat storyline. The problem that he is worried about would seem to reside with the 6 percent medication rate, not the 11 percent diagnostic rate.

Further, the only significant harm with overdiagnosis that Schwarz discusses is drug-taking. There are only a couple of paragraphs in the whole book about non-medication treatments, which he apparently regards as benign or little used and therefore unimportant. The social effects of medicalization or psychiatric labeling on children's well-being get only a few scattered sentences. For Schwarz the risk of harm at stake—especially as conveyed in each of his examples of tragic outcomes—is in the dangerousness and addictiveness of stimulant medications. (There are direct drug side-effects too, such as sleep problems, decreased appetite, and worsened symptoms, but parents or patients usually simply stop the medication if these occur.)

After having extolled their wondrous power and general safety for properly diagnosed patients, Schwarz has to stretch to claim that the stimulants are like speed and can be an unmitigated disaster for many others. He knows that the drugs have no special effect in some people that they don't have in others, and he knows that the stories he tells are not representative. Lacking knockdown evidence, he resorts to browbeating and a weak "stimulants are dangerous by being not dangerous *enough*" line of argument. He gives

considerable space to the extensive nonprescription use of stimulants by students and others, but, of course, in this objectionable practice no doctors or ADHD diagnoses are actually involved. Perhaps raising the alarm about the toxicity of stimulant medications will be compelling to psychiatrists and other physicians. But I doubt it. This strategy has been tried before.

Schwarz himself, however, is optimistic. Because psychiatry knows what ADHD is and has the tools to separate the true cases from other childhood problems, the epidemic of misdiagnosing can be ended. It is, as Schwarz approvingly quotes the Centers for Disease Control and Prevention, a "winnable battle." Psychiatry may be sleep-walking, but a wake-up call could galvanize the field into finally taking action. And, in fact, it has a model in the aforementioned psychologist and ADHD expert Keith Conners.

Winding its way through *ADHD Nation* from beginning to end is a mini-biography of Conners, who, like a figure in a morality play, personifies "awakening"—the title of one of the later chapters of the book. Right out of graduate school in 1961, he began working with Leon Eisenberg at Johns Hopkins on studies of the effects of the amphetamine Dexedrine on delinquent boys. Next they turned to Ritalin, newly approved for pediatric use, and published influential papers on its efficacy with "disturbed children." The pharmaceutical giant CIBA, the maker of Ritalin, was pleased, and even back then was slipping Eisenberg money. Conners also worked on developing questionnaires to measure symptoms of hyperactivity for use in research and in clinical practice. In the late 1960s, he published his first rating scale, to be filled out by teachers and used by physicians to make diagnostic assessments.

In subsequent years, Conners would move on to Harvard, Pittsburgh, George Washington, and then Duke. He would be directly involved in many of the major developments concerning ADHD. He hosted one of the sites for the MTA study, founded the *Journal of Attention Disorders*, published prolifically in the medical literature, licensed his widely used rating scales, conducted clinical trials for drug companies, and long served as a "thought leader," advisor, and conference speaker for nearly every pharmaceutical company with an ADHD drug to sell. For these efforts, he earned millions.

Then, in February 2013, while in the hospital with a broken leg, Conners's awakening began. He was reading a front-page story in the *New York Times* written by none other than Alan Schwarz. The story, of a young man who became addicted to Adderall and took his own life, was, in Schwarz's words, Conners's "smelling salts, shuddering him alert

to a problem he had so comfortably ignored." Then in his early eighties, he got worried that perhaps he had inadvertently contributed to a "national disaster of dangerous proportions," and that perhaps he and his colleagues in some of their actions "were just serving Big Pharma," as he later said at conferences of ADHD experts. According to Schwarz, Conners then began to speak out and is tweaking his rating scales (from which, incidentally, he is still earning $600,000 per year) to discourage misdiagnoses—his redemption.

For Schwarz, Conners's awakening is a sign that the whole field might come to see the light, might recognize "how easy reform can be." It will begin when "enough of ADHD's major players" have their own second thoughts, when they realize that doctors need better training to do a more thorough evaluation of children and so get the diagnosis right. Restoring order will take time, and the efforts of all involved, from doctors and parents to the media and CHADD, but with "incremental improvements, from enough angles," the 11-percent diagnostic rate can be brought down to the proper 5 percent, or, as he hedges at the end of the book, "7 or 8."

We can only hope for some such awakenings. If *ADHD Nation* leads to second thoughts and spurs action within psychiatry and pediatric medicine, all to the good. Schwarz's earlier work on concussions has had an outsized and salutary influence. Could something like that happen in this case as well?

The fact that we have already been talking in terms of an epidemic for over forty years does not bode well for change. *ADHD Nation* is a good book, and Schwarz's "follow the money" approach is a tried and true journalistic strategy. Yet we are still left with the old question, "How could this possibly happen?" The widely discussed factors he assembles, from pharmaceutical marketing to entrepreneurial doctors, are certainly relevant. No question of that. But the pillars on which his argument ultimately rests—that ADHD is a brain disease, well understood by psychiatry; that the doctors doing much of the prescribing are poorly trained or lazy; and that the parents of diagnosed children are sheep-like followers who fill every prescription—are simply not supported by evidence.

Like other books in this genre, something crucial is missing. We get only one side, the expert side, and little sense of what is attractive and convincing about the diagnosis of ADHD, and the medicalized solutions for it, to parents and to a rapidly growing number of adult patients. Early in *ADHD Nation*, Schwarz writes: "If a diagnosis of ADHD has been made by a qualified and responsible health professional then the decision to seek treatment through medication, either for yourself or your child, is not unreasonable." That wholly conventional advice is the

crux of the problem. We can get no insight into this "American epidemic" until we get some purchase on what has made the diagnosing of ADHD by so many "qualified and responsible health professionals" and the filling of prescriptions by millions of parents and adult patients seem a "not unreasonable" decision in the first place.

Because it *has* seemed reasonable, and that is the heart of our predicament. The medical model that Schwarz embraces blinds us to the very question we need to be asking. What is the nature of the distress that is leading so many to seek medical help? The distress is real; don't let anyone tell you otherwise. But there are no telltale blood tests or other neutral standards to measure such troubles. They are inescapably defined against normative standards. So, we have to ask: What obligations, expectations, and ideals of self, productivity, and efficiency must these predicaments presuppose? What, to put it simply, is it good to *be*? And what is it about this standard of being, and the competitive environments in which it is felt, that makes meeting it so elusive that medication is deemed both important and necessary? Whatever else is driving the epidemic of ADHD and its medicalized treatment—whether among school children, college students without a prescription, or adults toiling in cubicles—some picture of our self-worth tied to successful performance is central. "Adderall," as one college student revealingly put it, "is for winners." When we understand the implications of that statement, we will understand why the ADHD problem will likely prove far more stubborn than Schwarz imagines.

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