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Julia Belluz checks the latest health headlines against the evidence—and holds politicians, opinion leaders, and journalists to account. Follow Julia on Twitter: [@juliaoftoronto](#)

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# Psychotropes and children: are we ruining a generation?

by [Julia Belluz](#) on Thursday, February 2, 2012 12:09pm - [36 Comments](#)



(Dan Cepeda, Star-Tribune/AP Photo/)

There were a couple of troubling reports about the use of prescription drugs to treat attention-deficit hyperactivity disorder in children and youth this week. The [Vancouver Sun](#) reported “a striking increase” in the rate of second-generation antipsychotics prescribed to kids. South of the border, the [New York Times](#) ran a big op-ed entitled “[Ritalin Gone Wrong](#),” in which a psychology professor rang alarm bells over the three million U.S. children who take stimulants like Ritalin and Adderall for “problems in focusing.” With more than 40 years of experience under his belt, the professor said “we should be asking why we rely so heavily on these drugs,” adding that few physicians and parents “seem to be aware of what we have been learning about the lack of effectiveness of these drugs.”

Over the years, there’s been slew of such scaremongering articles about “the drugged up generation.” Some examples: As far back as 2001, *Time* magazine published a big story about “[The Age of Ritalin](#)” which, even then, noted, “The pace at which Ritalin use has been growing has alarmed critics for a while now.” In a 2010 [report](#), the *Globe and Mail* documented the meteoric rise in prescriptions for Ritalin and other amphetamine-like drugs for ADHD in Canada (up to 2.9 million in 2009, mostly for kids under 17, a 55 per cent increase over four years). The writer asked whether physicians were medicating a disorder or “treating boyhood as a disease.”

*Science-ish* looked into the literature on medicating childhood ADHD, and found interesting questions but not as many answers.

First, to find out more about those prescriptions of antipsychotics for children, *Science-ish* spoke to Dr. Silvia Alessi-Severini. She’s the assistant professor in the faculty of pharmacy at the University of Manitoba in Winnipeg who led [the study](#) “Ten Years of Antipsychotic Prescribing to Children,” on which the [Vancouver Sun article](#) was based. The professor noted that off-label prescriptions of the tranquilizing medications (used mainly to treat schizophrenia and bipolar disorder) for children with ADHD or aggression problems had indeed increased significantly, while the prevalence of psychotic disorders had not. “These drugs do not have any indication in children at all. Our message is that clinicians need to be careful and when they prescribe be aware of the risks and benefits... There’s no evidence they work in children.”

But there was some nuance that was missed in the mainstream reportage. Dr. Alessi-Severini was careful to point out that hers was an observational study using administrative data about prescribing. “With observational studies you don’t have a feel for clinical effectiveness and efficacy and adverse events... or the patient’s quality of life.” The researchers used a prescription database in Manitoba to *describe* trends, which couldn’t capture any of the

latter.

Also, Dr. Alessi-Severini noted, we don't know much about the effect of drugs on children in general, not just when it comes to antipsychotics and stimulants like Ritalin. For ethical reasons, she explained, there aren't many randomized-controlled trials done on children. "Clinicians always use medications indicated for adults and scale down to treat young patients. But this raises the issue that we don't really know how these drugs work in children, and what are the adverse events."

Even if researchers do a prospective study comparing children with ADHD who were treated with medication to those who were not, there is a built-in selection bias since kids who got the medication may have been more severe cases in the first place.

On the subject of the surge in the use of amphetamine-like drugs such as Ritalin to treat ADHD, as reported by the *New York Times*, the author notes: "To date, no study has found any long-term benefit of attention-deficit medication on academic performance, peer relationships or behavior problems, the very things we would most want to improve. Until recently, most studies of these drugs had not been properly randomized, and some of them had other methodological flaws."

This appears to be true, adding to the gaps in the evidence around medicating these disorders. As a recent [systematic review](#) on the efficacy of medication therapies for ADHD pointed out, because of the small number of sound studies out there, and the limitations of those studies, "we were unable to draw any conclusions regarding the effectiveness of medication therapy for ADHD." The authors called for more trials and more understanding.

There were similarly lackluster conclusions in the systematic reviews on [acupuncture](#) and [homeopathy](#) to treat attention-deficit disorders.

A more [recent retrospective cohort study](#), though, had some hopeful results. It looked at ADHD drugs and serious cardiovascular events in children and young adults, and found no evidence that the "current use of an ADHD drug was associated with an increased risk of serious cardiovascular events"—despite worries by parents.

But the lead author of that study, [Dr. William Cooper](#) of Vanderbilt University, said that doesn't mean we're in the clear. "Because no drug is completely without risk—including the sleep and appetite disturbances for ADHD medications—my approach as a pediatrician is to ensure that I carefully diagnose ADHD with rating scales and other tools and then carefully consider other options and additional therapies with families as we work together to come up with a treatment plan."

[Dr. David Cohen](#), a Canadian psychologist who studies the adverse effects of psychotropic drugs, was more concerned. "We just don't have evidence about how safe these drugs are to use in children," he added to the chorus. And we also have no information about long-term effects. "The vast majority of studies are eight weeks long."

From his current post in France, where prescription rates for stimulants are much lower than in North America, he asked, "Why not give them to kids (here)? The kids are the same. But they just don't deal with these problems like that." Indeed, the way childhood ADHD is treated changes culture to culture. It's not surprising, perhaps, that this three-country comparison [study](#) reported that the annual prevalence of any psychotropic medication in youth was greater in the U.S. (6.7 per cent) than in the Netherlands (2.9 per cent) and Germany (2.0 per cent). But exactly why this is the case raises more interesting questions: Is it just that the drug companies push their wares more aggressively in certain countries, or is it physician practices, different conceptions of risk and disease in different cultural settings, or changes in what people believe is normal childhood behaviour?

No one really knows, and we'll continue to see alarmist stories in our newspapers about to treat "problems in focusing" until we have better answers. Of course, this leaves moms and dads of ADHD kids in a tough place. As this [response](#) to the *New York Times* piece asked: If Ritalin has gone wrong, how are parents to cope? "These

aren't parents trying to get—as Dr. Sroufe puts it— 'off the hook.' They're parents trying to to do their best for their families." The problem is we're just not sure what that "best" is.

**Science-ish** is a joint project of *Macleans's*, [The Medical Post](#), and the [McMaster Health Forum](#). Julia Belluz is the associate editor at [The Medical Post](#). Got a tip? Seen something that's Science-ish? Message her at [julia.belluz@medicalpost.rogers.com](mailto:julia.belluz@medicalpost.rogers.com) or on Twitter [@juliaoftoronto](#)

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