Lab to Smartphone: ADHD Is Relative: Let's Deal With It

David C. Rettew, MD

The national shortage of attention-deficit/hyperactivity disorder (ADHD) medications is thought to be due, in large part, to a demand issue, meaning that there simply are more prescriptions being written these days compared to years past. This surge in demand does not come as a surprise to many child and adolescent psychiatrists who have felt the rise in evaluation requests from people, often adolescents and young adults, who think they may qualify for the diagnosis and could benefit from treatment, even if the question never came up when they were younger. When I was a resident, the prevailing teaching was that ADHD affected about 3-5% of the population with most people no longer qualifying for a diagnosis in adulthood. More recently, that prevalence estimate hovers around 10% with at least half continuing to have diagnosable symptoms later in life.[1]

While there has been speculation over the past several decades that the true prevalence of ADHD may be increasing due to a number of factors such as social media, air pollution, or even lack of exercise and related vitamin D deficiency, it is widely perceived that at least some of this apparent increase is due to increased awareness of the diagnosis and a lowering of the threshold for what counts as clinical levels of ADHD symptoms.[2] There is now strong evidence that, like most psychiatric diagnoses, ADHD behaviors exist as a dimension or continuum with no clear natural dividing line between clinical disorder and no disorder.[3,4] Throw in the fact that ADHD medications, stimulants in particular, can result in some cognitive enhancements (or at least subjectively perceived cognitive enhancements) for many people independent of having a diagnosis,[5] and you have all the necessary ingredients for a messy debate over who should be given the diagnosis and offered treatment.

To illustrate the debate, let's look at two hypothetical cases of individuals at different ages.

Case 1: Billie's Story

Billie was born into a busy working-class family. He's very energetic and full of life. In his fourth-grade class, this was often a problem when he was unable to stay in his seat or talked when he was supposed to be quiet. He was known in his class to rush through his schoolwork, often resulting in many careless mistakes. The teacher frequently had to re-direct Billie's attention back to class when he became distracted by what was happening outside the window or in the school hallway, but Billie was fortunate to have teachers who were able to make allowances and adjustments. At home, his parents did their best to let Billie burn his energy by playing outside. He had several minor injuries from falls or bike accidents but was overall happy and learned to love the outdoors. While the parents initially struggled with Billy over getting his homework assignments completed, over time, they began to feel like these battles were not worth the level of conflict, especially as Billie usually did enough to get by.

At age 23, Billie now works at a tree care service. He graduated from high school with some effort and couldn't wait to be able to spend less time in a classroom and more time outdoors. Billie has had several relationships over the years, and now he is in a stable long-term relationship with a woman who appreciates his enthusiasm. His partner has ended up being responsible for much of the administrative maintenance of their home such as paying bills and keeping track of their schedule. This arrangement is fine with Billie who has always struggled with the day-to-day details of life.

Case 2: Justine's Story

Justine was born into a family that highly values education and academic achievement. While her parents noted that Justine seemed to be somewhat more fidgety and restless compared to other fourth grade children, she was also extremely bright, and these intellectual abilities allowed her to stay above grade level. At home, Justine was required to complete her reading assignments and any other homework before being permitted to play or have screen-time. Her parents also kept her schedule relatively busy and structured, which seemed to help despite her frequent protests.

As a young adult, Justine is now in medical school. She did well as an undergraduate but had to work harder than she expected compared to her peers. In her current studies, the academic expectations have grown even higher, requiring her to read high volumes of material and study for long periods of time. In her clinical rotations, she needs to keep track of the needs of multiple patients. Accustomed to being near the top of her class, she now finds herself struggling and notices that she seems less organized, less focused, and less competent than most of her classmates. After looking at several videos on social media, she wonders now if her difficulties are due to her having untreated ADHD.

Understanding ADHD in Context: These two vignettes illustrate how the diagnosis of ADHD can often be a moving target. This aspect has always been appreciated when it comes to factors like age, but there has been much less discussion regarding the issue of context. Even though an ADHD diagnosis, as it has traditionally been conceptualized, would seem more applicable to Billie rather than Justine, the practical reality is that Justine is much more likely in today's world to be offered a diagnosis and treatment, due to the differences in their environmental demands and Justine's desire for clinical intervention. Is this a problem? It could be. Billie's background and socioeconomic status could lead to biased clinical judgments about what his future can and should look like, while Justine's request for medication could arguably been seen as creeping uncomfortably close to what has been called "cosmetic psychopharmacology." At the same time, one could also make a compelling case that when it comes to the level of impairment, a requirement for nearly all psychiatric diagnoses, it is Justine and not Billie that is currently being held back by their attentional abilities given the demands of their current environment as adults. Are Justine's attentional skills really worse than 95% of the population of 23-year-old women? Probably not, but they probably are worse than the majority of her medical school peers, many of whom are likely to be at the other end of the ADHD spectrum.

Conclusion: Resolving this dilemma of the correct diagnosis is not the goal of this article. Rather, the hope is to articulate a reality about the way some of our clinical diagnoses work that may be uncomfortable but needs to be acknowledged and discussed openly. Neither the dimensionality nor relatively of ADHD causes it to be any less "real." Someone with a severe seasonal allergy, for example, isn't disqualified from that diagnosis simply because they currently live in a place that doesn't provoke symptoms. At the same time, these fewer absolute qualities about ADHD do present clinical and ethical challenges in our everyday work. There will always be those people who twist some of these more nuanced aspects of psychiatric diagnoses to fit more extreme political agendas, but as psychiatric colleagues, we do best to see these complexities clearly in the service of providing the best care we can.

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About the Authors

David C. Rettew, MD, is Medical Director of Lane County Behavioral Health in Eugene, Oregon. He is author of the book *Parenting Made Complicated: What Science Really Knows About the Biggest Debates of Early Childhood* and the "ABCs of Child Psychiatry" blog on the Psychology Today website. You can follow him on Twitter at @PediPsych.

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