

WITH ABUNDANT INFORMATION AVAILABLE ON ADHD, we may have a false sense that we know more about the experience

of girls than we really do. At last, there is ever-increasing acknowledgement that the manifestations of ADHD differ by gender. And yet, we are only beginning to appreciate the far more crucial factor—that the impact of ADHD differs significantly by gender. In fact, much about the lives of girls with ADHD is secret in that their inner world has been virtually unknown to us. Although our ability to access windows into their experience is in its infancy, we can try to make sense of the glimpses we have.

We can best understand the lens through which girls with ADHD are viewed by tracing its developmental history. Early referrals to psychiatric clinics were motivated by the difficulty of managing hyperactive, impulsive, willful children, the great majority of whom were young white boys. The research utilizing that clinic data formed the basis for the diagnostic criteria for ADHD, which reflected the assumption that the disorder primarily affected boys. Only the minority of girls exhibiting behavior most similar to hyperactive boys could potentially be diagnosed. That initial conception continues to be over-represented in the research and the media; today, ADHD remains grouped with the Disruptive Behavior Disorders of Childhood in the DSM-IV-TR. Still, the presumption is that the diagnostic criteria pertain as accurately to girls as to boys. But do they?

Our knowledge of girls with ADHD was limited to those now described as the predominantly hyperactive-impulsive type or combined type. In 1980, new diagnostic criteria allowed for the possibility of inattention without hyperactivity. Suddenly, the more easily overlooked inattentive girls, whose behavior least resembled that of hyperactive boys, could be diagnosed. Since then, we've witnessed an extraordinary increase in female diagnoses, which is reshaping the landscape of the disorder. However, despite nearly equal numbers of women and men with the disorder, clinics continue to report a higher prevalence of women than girls. We're reminded that there remains a referral bias, in that girls are less frequently referred, and a diagnostic bias, in that the diagnostic criteria still exclude many girls.

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By Ellen Littman, PhD

Sex differences in neurodevelopment, such as faster maturation of the female brain, and in neuroanatomy, such as size differences in brain structures, account for some of the differential manifestations of symptoms. However, gender differences in hormones and societal role expectations may contribute to the differential impact. For example, at an early age, girls begin to internalize gender role expectations. Society still supports the feminine obligations to accommodate others' needs, be passively compliant, work cooperatively, and be neat and organized. Young women with ADHD often feel compelled to strive for these ideals despite the fact that they call upon precisely those executive functions that perform unreliably. Conforming is far from instinctive for these girls, and they can feel like impostors. Consumed with shame, they judge themselves harshly relative to their peers.

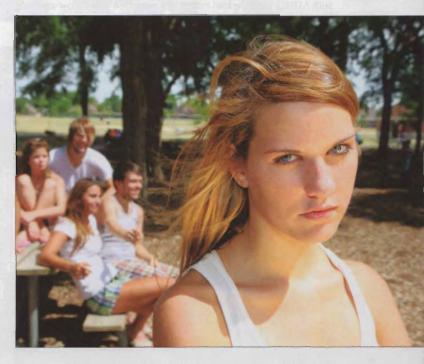
Peer interactions and rejection

For girls, peer interactions become powerful determinations of self-worth. Unfortunately, ADHD symptoms can thwart their ability to comply with the unique demands of girls' socialization. Daunted by the rapid verbal interplay due to slowed processing, they may retreat, ashamed of missing the punchlines. When they can't recognize their impact or read social cues accurately, they can be ambushed by harsh negative feedback. Because their impulse-driven feelings predominate, they may appear oblivious to others' feelings, and be judged as selfish. Craving acceptance, most girls struggle to compensate for their difficulties so as to avoid dreaded peer rejection. While boys often externalize their frustrations and blame others, girls try to hide their differences and appear to conform. To this end, internalizing their feelings becomes the defense mechanism of choice to keep their shameful confusion a secret.

While most girls with ADHD appear to internalize aspects of their suffering, it may be that inattentive girls resort to this coping skill the most. Introverted and easily overwhelmed, they tend to feel unfairly criticized and alienated from peers. Demoralized by underachievement, these passive daydreamers are reluctant to participate in class and surrender quickly when frustrated. Easily irritated, they cope with their hypersensitivities through avoidance. For these girls, a high IQ is a mixed blessing: "twice-exceptional" girls perform well in school, which boosts their self-esteem. However, believing that intellect carries an inherent expectation of success, they are even more confused and ashamed of their difficulties, and even more driven to hide their struggles.

These girls have the capabilities to compensate for their cognitive challenges, but they come at a high emotional cost. Investing tremendous time and energy in their public persona, they rely on obsessional behaviors for organization and structure. However, the hypervigilance necessary for constant self-monitoring is fueled by intense anxiety. Hyperfocusing on a seamless facade can become dangerous perfectionism. Regardless of how successfully they compensate, they still feel burdened and exhausted. Ironically, the result of coping well is that their plight remains secret, but no less damaging; these girls are diagnosed the latest, if at all.

Emerging research has revealed that hormones further complicate the lives of females with ADHD. We now know that the brain is a target organ for estrogen, where it impacts cognition, mood, and sleep. For many girls, behavioral issues blossom around puberty, as estrogen levels increase. This pattern contrasts with many boys, whose overt hyperactivity decreased so significantly after puberty that, for decades, it was thought that they "outgrew" their ADHD. Yet another reminder of the diagnostic gender bias is the requirement that symptoms be present before age seven. Since girls' symptoms have been shown to increase with their estrogen levels, it is unlikely that most girls will meet that criteria. With increasing estrogen, adolescents experience mood swings, emotional re-



activity, irritability, and impulsivity. Monthly estrogen fluctuations cause a premenstrual syndrome involving decreased frustration tolerance and feelings of negativity, which exacerbate ADHD symptoms. These impairing symptoms can be the trigger for seeking help, although it may result in being misdiagnosed solely with a mood disorder or PMDD, rather than recognizing the depression as comorbid to underlying ADHD.

This exacerbation of impulsivity in adolescence is particularly pronounced for girls with the combined type. They can be charismatic, hyper-talkative, and hyper-social. They can also be intense and emotionally volatile, defiantly competing for social dominance. Self-proclaimed leaders, these girls often overestimate their social competence; in fact, their rebellious stance and relational aggression can provoke peer rejection. They tend toward addictive behaviors offering immediate gratification in terms of self-medication and peer acceptance. The lure of substance use is seductive: nicotine and caffeine aid concentration; alcohol and marijuana alleviate restlessness, temporarily evading stress. Bingeing on high-sugar or high-carbohydrate foods increases serotonin, offering temporary calm, but leading to weight struggles and sometimes bulimia. Other impulsive stimulation-seeking behavior involves risktaking, including driving too fast, pranks, and vandalism. Hungry for acceptance, they frequently engage in high-risk sexual behaviors and tolerate unhealthy relationships. Less likely to consider the consequences of unprotected sex, they are at greater risk for promiscuity, STDs, and unplanned pregnancy than their counterparts who do not have ADHD.

For some girls, ADHD and chronic peer rejection predict a wide range of future adjustment problems, which dovetails with the fact that about half of these girls will have at least one other diagnosable disorder by young adulthood. With a high likelihood of comorbid anxiety and/or depression complicating the picture, persistent criticism and rejection can feel overwhelming and inescapable. These negative interactions become daily traumatic experiences, and their cumulative impact cannot be overestimated. Plagued by a sense of demoralization and despair, it is not surprising that most young women with ADHD struggle with low self-esteem. Without intervention, this sense of helplessness and hopelessness greatly increases the risk of negative outcomes.

Girls with ADHD and self-harm

Stephen Hinshaw, PhD, has been in the vanguard of research on girls with ADHD. He is the lead author of a recent ten-year follow-up study utilizing the largest racially and socioeconomically diverse subject pool of girls to date. Of 140 females 17-24 years old, 93 had been diagnosed with combined-type ADHD and 47 with inattentive-type ADHD as children, although over forty percent no longer met the criteria for ADHD at the time of this follow-up. They found that these young women experienced significantly more severe psychiatric symptoms and significantly greater functional impairment than control subjects on a wide range of measures.

Most troubling was the fact that the girls with combined-type ADHD were significantly more likely to manifest self-injurious be-



haviors and suicide attempts than the inattentive or control group subjects. Half of the combined-type subgroup had engaged in self-injurious behaviors, and almost a fifth had attempted suicide. Since these tendencies characterized the girls with combined-type ADHD and not those with inattentive-type ADHD, it suggests that impulsivity may play a role in compelling these young women to act on their internalized pain.

These findings are a wake-up call, underscoring the fact that, even as girls with ADHD mature and appear less symptomatic, they continue to suffer secretly. While the findings do not suggest any causal relationships, they expand the continuum of potential outcomes for girls, particularly if they were sufficiently symptomatic to be diagnosed as children. Since inattentive girls compose only a third of the ADHD subjects, and since the majority of girls with ADHD seem to have the inattentive type, it is reasonable to postulate that these findings do not represent the experience of the majority of girls with ADHD. While we can conclude that the girls once diagnosed with combined-type ADHD became increasingly impaired and ultimately self-destructive, we are left with questions as to whether their ultimate diagnosis was ADHD. Nonetheless, these findings clearly highlight the importance of long-term vigilance in monitoring and treating girls as they negotiate the complex transition into adulthood.

None of these outcomes are inevitable. It is true that, unrecognized and untreated, girls can experience significant symptoms, impairment, and comorbidity across contexts. Yet there are a multitude of things that parents can do to mitigate the impact of their daugh-

ter's ADHD. In spite of diagnostic issues, it begins with early intervention. Often, parents or teachers begin to suspect ADHD, but conclude that the child is not "having trouble," so they don't seek help at that time. Often, they wait until there's a problem academically or socially, or only seek help when they're interested in school accommodations or medication. This is a mistake. While we may wish it were otherwise, ADHD does not limit itself to one aspect of life.

Supporting and empowering girls with ADHD

Finding a mental health professional who has significant experience with girls with ADHD is the first step toward helping all family members to have a comprehensive understanding of ADHD. Even a young child can recognize some unique aspects of her functioning, in the context that different people have different kinds of brains. Parents can learn about the struggle for self-regulation: By understanding the brain's need for optimal arousal, they will know when to offer more stimulation and when to help decrease stimulation. Parents can learn to create ADHD-friendly home environments, understanding the importance of predictability, structure, consistency, and clear expectations and consequences. They can help create quiet space where she feels safe to regroup—and then respect those boundaries.

Parents can learn to modulate their emotional responses. Girls with ADHD can be frustrating, and how that frustration is communicated determines whether they emerge feeling hopeless or hopeful about their ability to succeed in the future. Parents can strive to present a calm united front that will support their daughters in reestablishing emotional equilibrium. Parents can also help their daughters find an area of strength in which they can excel. Parents can learn to help their daughters reframe the way they define themselves; encouraging them to consider more realistic perspectives that are a better fit can reduce stress tremendously. It has been shown that girls' beliefs in their ability to succeed academically offer significant protection from risk factors; regardless of performance, this message can instill sorely needed confidence about their potential. This suggests that one of the most powerful interventions that parents can offer is a consistent sense of hope.

When girls are missed by the diagnostic checklists, they aren't included in subject pools for new research, their numbers and experiences are not accurately documented, and they continue to live secret lives. Today, an astoundingly small percentage of research focuses on females and, in existing studies, the smaller percentage of subjects are the inattentive type. Until we find ways to access the internalized experience of all girls, they will continue to wander about in a world that feels less predictable and less secure than that of their peers. Reactive rather than proactive, they lose confidence in the judgment and abilities that so often betray them. These self-attributions, rather than the ADHD challenges themselves, seem to underlie the psychological distress that can undermine them.

It is critical that researchers explore why ADHD exacts a greater toll on the psychological functioning of girls than boys. It may be that the perfect storm of increasingly internalized symptoms, escalating estrogen involvement, and mounting shame and demoralization in response to societal expectations combine to create a unique trajectory of stressors for females. As girls enter adulthood, their situation is further complicated by anxiety and depression, if not additional comorbid issues. Especially in light of the continuing gender bias, it is essential that parents, teachers, pediatricians, and mental health professionals become familiarized with the more subtle presentation of inattentive girls, as well as with the daunting risks facing impulsive girls. In all cases, our heightened awareness and sensitivity to their inner lives will enable us to better support them in their challenges by creating treatments that target their unique needs. These girls need to know that, rather than being silenced by their shame, we want to empower them to be heard—and that we're listening.