Interdisciplinary Research

What are the barriers to diagnosis for women with ADHD?

Katelyn Kortright

BIS 4930: Interdisciplinary Research

Dr. Lindsay Zeig, Ed.D, LPC, NCC, SCL

November 12, 2023

What are the Barriers to Diagnosis for Women with ADHD?

When most people think about ADHD, they think of the most common presentation of the disorder; fidgeting, unable to focus, disruptive. While these are some of the symptoms an individual might exhibit, it is a far cry from a comprehensive list of possible symptoms associated with an ADHD diagnosis. But as researchers learn more about the condition, different presentations of ADHD have been recognized. These presentations include symptoms that are less overt than previously seen. In his book What You Need to Know About ADHD, Victor Stolberg addresses these other symptoms. "One person with ADHD may exhibit inattentiveness but may not be generally either hyperactive or impulsive, while another might present with clear indications of hyperactivity yet not be easily distracted" (Stolberg, 2019). Inattentive symptoms usually include the inability to attend to focus on specific tasks and difficulties paying attention. Difficulty regulating one's self is a classic symptom of ADHD. This can appear in several ways; hyperactivity, impulsivity, exaggerated emotions. The cognitive symptoms of ADHD are also wide ranging. These include problems with executive functioning, stimulation seeking behaviors, poor working memory, and difficulty with task oriented goals. While the severity of any of these symptoms varies from person to person, a baseline of 6 or more symptoms that persist over a long period of time are used to determine a diagnosis of ADHD.

Boys (13%) are more likely to be diagnosed with ADHD than girls (6%) (CDC, 2022) and they are more likely to be diagnosed early in life. The ratio between females and males diagnosed is 1:9 in clinical settings, meanwhile community surveys put these numbers at 1:3 (Radonovich, 2001). So while there is a difference between the genders affected by ADHD, males are 3 times more likely to be referred and diagnosed in a clinical setting. Up to 65% of cases experience ADHD well into adulthood (Stolberg, 2019). As those children grow into

adults, hormones get involved, demands grow, and symptoms can get worse than a person's coping mechanisms can handle. This breaking point coupled with the ability to advocate for one's self could be a reason women get diagnosed so often late in life. "If diagnosed late or not at all, ADHD is associated with lower levels of life satisfaction. This, in turn, is associated with long-term medical problems, peer rejection, and difficulties at work and in relationships. Undiagnosed women are less able to be consistent mothers and to cope with work and family demands and have higher divorce rates. Compared with their peers, girls with ADHD report increased anxiety, distress, depressive symptoms, and external locus of control. They also tend to exhibit self-harm, social impairment, suicidal ideation, and suicide, and are at higher risk of psychological impairment" (Da Silva et al., 2020). Then, when women finally do seek treatment, the overwhelming majority are misdiagnosed with anxiety, depression, or other mood disorders. ADHD has been found to be a highly comorbid disorder. In women, depression, anxiety, and eating disorders are the most common comorbid diagnoses. While these diagnoses are often comorbid, it also has been found that many women are incorrectly diagnosed with disorders such as anxiety or depression and the ADHD is overlooked entirely. A nationwide survey reported that 14% of young girls were treated with antidepressants before receiving treatment for ADHD. That number was only 5% of young boys, reinforcing the notion that treatment for female patients targets non-ADHD conditions first (Quinn & Madhoo, 2014). With Medical News Today reporting that there has been a 344% increase in privately insured females filling their prescription medications for ADHD from 2003–2015 (2022), this implies that more females are being diagnosed and receiving medication for ADHD. There is a clear need to identify and destroy the barriers that girls and women suffering from ADHD face in receiving a timely and correct diagnosis.

There is an expectation that scientific research will, in some way, contribute to solving important societal issues (Menken, 2016). However, it is important to recognize that science can not be relied on alone to solve these complex problems. Scientific interventions may solve one aspect of a complex problem, but may introduce new, unforeseen complications on a societal front. In order to start to address such a complex topic, an interdisciplinary approach is required. In this context, interdisciplinary refers to the use of perspectives from varying disciplines to understand a complex problem.

Problems concerning nature and society are inherently complex. As the NAS puts it (2005, p. 30), a complex system such as climate change cannot be understood comprehensively per se "without considering the influence of the oceans, rivers, sea ice, atmospheric constituents, solar radiation, transport processes, land use, land cover, and other anthropogenic practices and feedback mechanisms that link this "system of subsystems" across scales of space and time."... Collaboration across the natural sciences, social sciences, and humanities is required to answer such questions fully. (Menken, 2016, p. 38)

The topic of ADHD is certainly a complex one. So complex even, that though Menken references ADHD in *An Introduction to Interdisciplinary Research*, the dynamics of diagnosis itself are barely scratched, let alone the added complexity of differing gender experiences. The trick is deciding which disciplines are most important in understanding and addressing the barriers of ADHD diagnosis. The biggest factor to know is how each of the following disciplines define ADHD. Once that is out of the way, aspects like how each discipline identifies the condition can be addressed and corrected if needed.

Literature Review

Psychology

The most obvious of these disciplines would be psychology, because this encompasses things like medication, diagnosis, and symptoms. Psychology is a social science that studies the cognitive construct that people develop to organize their mental activity (Repko & Szostak, 2017, pg. 37). They also study individual differences and genetic predispositions and use those to infer information about populations in general. Psychologists often take a modernist approach to research, preferring to use observation and experimentation to collect objective data. Though, they more than any other medical discipline must acknowledge the subjective nature of the symptomatic experience. They apply both a clinical and experimental epistemological approach to treatment. Using objective data collected while conducting experiments that utilize controls to minimize outside factors creates an environment that allows for the most targeted treatment options.

A major concern from a psychological perspective is that the data obtained from clinical settings could be wrong due to the referral bias that exists. This data needs to be accurate in order to make the correct modifications to treatments based on gender and developmental age.

Assessing the symptomatic differences is an important step in the psychological understanding of the barriers to ADHD diagnosis in females. Boys are more often referred due to behavioral symptoms, whereas females are more often referred due to emotional issues, such as anxiety or depression (Attoe & Climie, 2023, p.646). Women eventually diagnosed with ADHD have usually been in treatment for other mood disorders prior. Girls who display significant externalizing behaviors are more likely to receive a diagnosis than those who suffer from the internalizing symptoms of the inattentive subtype, suggesting that girls may be more likely to be missed in the diagnostic process unless they have significant behavioral concerns (Attoe & Climie, 2023, p.646). Research consistently shows that girls, and particularly women, when diagnosed with ADHD, are more likely to be identified as inattentive compared with boys and men (Rucklidge, 2010). The inattentive subtype is much harder to recognize for those unfamiliar with its symptoms. It has been reported that girls exhibit more internal symptoms than boys. Girls with ADHD were found to report more anxiety, overall distress, depressive symptoms, and an external locus of control (Quinn, 2008). That these symptoms are not disruptive to others could be one reason ADHD is often missed in girls.

Comorbidities can mask the symptoms of ADHD and cause misdiagnosis. Higher rates of comorbidities such as depression and eating disorders in females with ADHD may make diagnosis more difficult (Attoe & Climie, 2023, p.646). Since symptoms of these conditions are more easily recognized, it is conceivable that this would be the reason for referral. Girls are more likely to be treated for other mood conditions before their ADHD diagnosis. 14% of girls (13–17 years old) with ADHD were found to have been treated with antidepressants before their ADHD diagnosis, compared with only 5% of males with ADHD (Quin, 2008). Some research wonders whether high IQ in girls masks ADHD so that they only come to clinical attention when there are symptoms of depression or anxiety (Rucklidge, 2010). There is more research needed to identify if this is in fact the case. Comorbid disorders also seem to be more external in males than females as well. Rates of criminality, imprisonment, and traits of psychopathology are higher in men with ADHD than those without. This difference did not occur in women with ADHD (Rucklidge, 2010).

Sociology

Secondarily, the perspective of the sociological discipline must be considered. Sociology focuses on the realities of interactions between the individual and others in their society. Research in this discipline is more qualitative than empirical, focusing on methods such as interviews, surveys, and observation. These methods are subject to interpretation, unlike mathematical and statistical methods, because they "study people in their natural setting and attempt to make sense of phenomena in terms of the meanings that people bring to them" (Repko & Szostak, 2017, pg. 66). The assumptions within this field are divided. Empiricists believe that through gathering data, an independent social reality can be observed. Others believe reality is a social construct filtered through experience, varying values, and other influences on human behavior.

How does society affect the diagnosis or misdiagnosis of ADHD? Behavior disorders are most often first noticed by a child's teacher, since schools are where most children begin interacting socially. When students start school, there are expectations of attention and calmness to adhere to, so when a child exhibits behaviors that run counter to those expectations, it is often a teacher who recognizes these as symptoms of something larger and requests an assessment. Studies have shown that boys are referred for assessment significantly more often than girls. One study found that among children with ADHD, 72% of those with a clinical diagnosis were boys (Attoe & Climie, 2023, p.646).

"Because teachers tend to notice children who display behaviors that are more overtly hyperactive and disruptive, they may be more likely to refer them for treatment" (Coles, et al., 2012). This should be true of both genders, but "when presented with a vignette of a child with a clinical level externalizing disorder, teachers more accurately identified boys as having the disorder than girls" (Nolan, Murphy & Kelly, 2022). The same study found that clinical anxiety was more accurately identified in girls than boys. Teachers were able to identify behavioral problems in girls, though they were often referred to as emotional difficulties rather than ADHD (Coles, et al., 2012). It has been reported that gender is a bigger risk factor for failing to access ADHD services than low family financial resources, rural living, and access to medical insurance, combined (Coles, et al., 2012).

Research shows that women's experience with ADHD includes suffering from low self-esteem. This often sets a grave tone in an adolescent girl's ability to navigate social, academic and psychological situations. Many participants in one study described comparing themselves to other people around them, which left them feeling like "there is something wrong with me." (Morley & Tyrrell, 2023). The idea that these girls should function just as society expects creates an untenable situation for those whose brains inherently function differently. Girls are more likely to experience peer rejection and social isolation (Coles, et al., 2012). Some researchers theorize that this fear of rejection and isolation is a strong motivator for these girls to come up with coping mechanisms to mask their ADHD for as long as possible, delaying diagnosis. Seven out of eight participants referred themselves for a diagnosis after they researched more about ADHD and realized that they would benefit from seeking professional help (Morley & Tyrrell, 2023). All participants in Morley and Tyrrell's study reported having their feelings validated once they received their diagnosis. "Validated feelings and experiences improved participants' self-esteem, and many participants reported being kinder and more compassionate to themselves following diagnosis" (Morley & Tyrrell, 2023).

Common Ground

The best way to find a solution to the barriers women face in their journey to diagnosis is by studying the perspectives of multiple disciplines and identifying where they overlap. This is the common ground theory. By using the common ground theory, "one can subsequently truly integrate and form new, interdisciplinary insights" (Menken and Keestra, 2016, pg. 46). Finding common ground is done through several steps. Once key points that are shared by the disciplines have been identified, additional insights can be added to clarify the explanation of the issue. One or more assumptions a discipline makes may need to be re-examined.

In this case, the fields of psychology and sociology are both part of the social sciences, and thus share close perspectives on gender differences in ADHD. There are many overlapping theories that explain the difference in referral rates for example. The sociological aspect of adhering to gender norms in schools is further backed up by the psychological explanation of differing symptom presentations. Because girls present with inattention more often than boys, they seem to fall within those gender norms and go unnoticed in these settings.

There are subtle differences in each discipline's reasoning for how many of these diagnoses get missed. The sociological aspect implies that it is a girl's fear of rejection and gender expectations that cause them to mask their symptoms in order to avoid being labeled as different. Psychologists tend to lean toward the explanation that girls inherently show less hyperactive symptoms and because they are not disruptive, they aren't recognized as having a problem until comorbid conditions such as depression present themselves. The truth is surely somewhere in between.

Solution

There is a need to more deeply investigate the degree to which social norms have an affect on diagnosis rates. There are several variables that would need to be studied while somehow mitigating any other external influences. The stigma that comes with an ADHD diagnosis as it is seen by both the individual and their peers, teachers, family and others all needs

to be quantified and assessed. Because feelings themselves are subjective, it is hard to objectively measure how much emotional distress is experienced across genders, but it is a neglected statistic in most of the studies about gender and ADHD.

In the meantime, an update to the diagnostic criteria of ADHD is sorely overdue. In general, females with ADHD present with fewer of the symptoms outlined in the DSM-V compared to males, but are equally as impaired by their symptoms (Quinn and Madhoo, 2014). This would be a start towards training professionals in a clinical setting on recognizing all of the symptoms of ADHD, hopefully leading to much less misdiagnosis and wasted time treating the wrong condition.

Society has already started doing their part to destigmatize neurodivergent individuals, there is more that can be done within the first several years of a child's life. School aged children are subject to wellness visits with their primary care physician. These physicians can implement screening for neurological and behavioral disorders with their annual check ups, school physicals, or any other standard office visit. Similarly, instituting training for teachers within the K-12 system would create more awareness within the classroom setting.

These solutions introduce a few more disciplines into the process as well. Economics always comes into play when there is any need for a new or improved program. Because schools are regulated by the government, this adds an additional layer of complexity to the issue of funding, because as everyone knows, the wheels of government turn slowly. Funding for school systems is already hard to come by, so where will the resources come from to provide this training? Much of this information is available for free on the internet. Making this information part of regular teacher in-service training would provide both the means and opportunity for these first line of defense heroes to learn what to look for.

Conclusion

There is a lot of research about ADHD available, but most of it refers to the condition as it pertains to the male population. The female population is severely underserved in the ADHD community, suffering in silence alongside their non-ADHD peers. There is not much research out there that truly breaks down the condition in girls and women both psychologically and socially. And while much more information on female specific ADHD presentation is required, a difference can start to be made now. Through proper training and creating a more understanding society, intervention can happen much earlier in life, vastly improving the quality of life these women will experience.

References

- Attoe, D. E., & Climie, E. A. (2023). Miss. Diagnosis: A Systematic Review of ADHD in Adult Women. JOURNAL OF ATTENTION DISORDERS. https://doi-org.huaryu.kl.oakland.edu/10.1177/10870547231161533
- CDC. (2022, August 9). Data and statistics about ADHD. Centers for Disease Control and Prevention. Retrieved November 12, 2023, from https://www.cdc.gov/ncbddd/adhd/data.html
- Coles, E. K., Slavec, J., Bernstein, M., & Baroni, E. (2012). Exploring the Gender Gap in Referrals for Children With ADHD and Other Disruptive Behavior Disorders. *Journal of Attention Disorders*, 16(2), 101-108.

https://doi-org.huaryu.kl.oakland.edu/10.1177/1087054710381481

- Da Silva, A.G., Malloy-Diniz, L.F., Garcia, M.S., Rocha, R. (2020).
 Attention-Deficit/Hyperactivity Disorder and Women. In: Rennó Jr., J., Valadares, G.,
 Cantilino, A., Mendes-Ribeiro, J., Rocha, R., Geraldo da Silva, A. (eds) Women's Mental
 Health. Springer, Cham. https://doi.org/10.1007/978-3-030-29081-8_15
- MediLexicon International. (2022). ADHD gender differences: Signs, diagnosis, and more. Medical News Today. Retrieved April 12, 2023, from

https://www.medicalnewstoday.com/articles/is-adhd-more-common-in-males-or-females

- Menken, S. D. R., Keestra, M., Rutting, L., Post, G., Keestra, M., Roo, M., Blad, S., & Greef, L. (2016). An Introduction to Interdisciplinary Research: Theory and Practice (Perspectives on Interdisciplinary) (3rd ed.). Amsterdam University Press.
- Morley, E., & Tyrrell, A. (2023). Exploring Female Students' Experiences of ADHD and its Impact on Social, Academic, and Psychological Functioning. *Journal of Attention*

Disorders, 27(10), 1129–1155.

https://doi-org.huaryu.kl.oakland.edu/10.1177/10870547231168432

- Nolan, C., Murphy, C., & Kelly, M. (2022). Using the IRAP to Investigate Gender Biases Towards ADHD and Anxiety. *Psychological Record*, 72(1), 111–117. https://doi-org.huaryu.kl.oakland.edu/10.1007/s40732-021-00474-x
- Quinn PO. Attention-deficit/hyperactivity disorder and its comorbidities in women and girls: an evolving picture. Curr Psychiatry Rep. 2008 Oct;10(5):419-23. doi: 10.1007/s11920-008-0067-5. PMID: 18803916.
- Quinn, P. O., & Madhoo, M. (2014). A Review of Attention-Deficit/Hyperactivity Disorder in Women and Girls. The Primary Care Companion For CNS Disorders, 16(3). <u>https://doi.org/10.4088/PCC.13r01596</u>
- Radonovich, K. J. (2001). Gender differences on executive function tasks in children with ADHD (Order No. 3027576). Available from ProQuest Dissertations & Theses Global; ProQuest One Academic. (304695270). Retrieved from <u>https://www.proquest.com/dissertations-theses/gender-differences-on-executive-function-</u> tasks/docview/304695270/se-2
- Repko, A. F., & Szostak, R. (2017). *Interdisciplinary research: Process and theory*. Los Angeles: Sage.

```
    Rucklidge, J. J. (2010). Gender Differences in Attention-Deficit/Hyperactivity Disorder.
    Psychiatric Clinics of North America, 33(2), 357–373.
    https://doi-org.huaryu.kl.oakland.edu/10.1016/j.psc.2010.01.006
```

Stibbe, Huang, J., Paucke, M., Ulke, C., & Strauss, M. (2020). Gender differences in adult ADHD: Cognitive function assessed by the test of attentional performance. PloS One, 15(10), e0240810–e0240810. https://doi.org/10.1371/journal.pone.0240810

Stolberg, V. B. (2019). What you need to know about adhd. ABC-CLIO, LLC.

(https://ebookcentral.proquest.com/lib/oakland/detail.action?docID=5851315.)