**Understanding the Symptomology of Girls with ADHD: A Diagnostic Call to Action**

Emily J. Rowe

Department of Education, University of Northern British Columbia

EDUC 601: Educational Research Designs and Methodology

Dr. Lantana Usman

December 9th, 2022

**Understanding the Symptomatology of Girls with ADHD: A Diagnostic Call to Action**

According to the American Psychological Association (APA) (2022), attention-deficit/hyperactivity disorder (ADHD) “is a behavioural condition that makes focusing on everyday requests and routines challenging” (para. 1). Walters (2018) notes that the current prevalence of ADHD diagnosis is 13.2% in boys and 5.6% in girls, indicating that boys are much more likely to obtain an ADHD diagnosis compared to girls. Murray et al. (2019) explains this difference in prevalence by noting that ADHD is well-known and has been perceived as a male-typical disorder and that symptoms often present themselves differently in males versus females. Hence, it is inferred that diagnostic testing has a male bias in place, which is leading to the underdiagnosis of ADHD in females, alongside the fact that symptoms present differently in females (Murray et al., 2019). Walters (2018) also notes that “diagnosis in girls may also be harder because of subtler clinical manifestations and rating scales that emphasize behaviour more commonly seen in boys; the symptoms more commonly associated with hyperactive/impulsive behaviour” (p. 8), which further supports this difference. The proper diagnostic criteria should be re-evaluated to better include symptoms of ADHD in females, particularly at a young age as these symptoms become overlooked.

The purpose of this literature review is to evaluate the differences in symptomatology and treatment between ADHD in girls compared to their male counterparts. As well, to introduce an argument for a change in the clinical diagnosis of females with suspected ADHD symptoms and why it is important for educators, particularly special educators, to be aware of how ADHD can present differently in female students than male students. As special education teachers often act as a liaison between families and practitioners or meet with parents to encourage them to have their child see a doctor or pediatrician it is imperative that they understand the correct symptoms. While of course teachers and special education teachers cannot diagnose or recommend a diagnosis, being aware of gender-specific symptomology is of benefit to the students and teachers, especially once a diagnosis has been made by a medical doctor. Educators can best support the identification of females with ADHD by better understanding how their symptoms may differ from males, such as manifesting as anxiety or depression, impulsivity and inattentiveness, and differences between executive functioning. This paper will explore and explain the differences in these symptomologies in depth using a breadth of academic literature, while also exploring strategies to help educators better manage and understand their female students with ADHD.

**Anxiety and Depression**

“Comorbidity in girls with ADHD is estimated to be high, particularly in the areas of mood and anxiety disorders” (Walters, 2018, p. 8). Martin et al. (2018) found in a study that ADHD is far more likely to manifest as anxiety or depression in females than males, and thus, this may help to explain the lower prevalence in females when compared to males. Martin et al. (2018) advocate for better screening amongst medical professionals when a female child is being referred to them with anxiety or depression, to ensure that they are also checked for ADHD, which is further supported by Murray et al. (2019), who notes that by ensuring girls are being considered through ADHD when presenting with symptoms of anxiety or depression, there will be a decrease of overshadowing and misdiagnoses for these children. Martin et al. (2018) further note that this should especially be considered for girls who have biological family members who have been previously diagnosed with ADHD, given that there is a genetic link to ADHD among biological family members, as per the findings of their study. Murray et al. (2019) make an important distinguishment regarding anxiety in females, by stating that anxiety is a more “female-typical” (p. 8) problem. This idea is interesting because it shows that there is clear and rampant sexism and stereotyping in the literature, special education frameworks, and medical frameworks regarding diagnoses of such mental illnesses. A child that seems emotional cannot solely be attributed to their sex and a deeper dive into their overall functioning must be conducted. Furthermore, both general classroom and special education teachers need to be aware of this; in a study by Rogers et al. (2015), it was found that female students with ADHD have an increased likelihood to report having less of an emotional bond with their teachers and participate in less group work compared to their female peers and in comparison, to male students who have ADHD. Interestingly, Rogers et al. (2015) also found that “teachers reported they felt less of an emotional connection (i.e., bond) with ADHD students and found them more difficult to work with (i.e., collaboration) compared to non-ADHD students” (p. 343). Hence, as educational practices and policies continue to move forward and there is an increased push to connect with students, it is becoming blatantly obvious through the literature that this is more of a struggle for neurodivergent students than it is for neurotypical students. Given the difference in symptomology, with ADHD often presenting in females as anxiety or depression, Mohr-Jensen et al. (2019) found that females are often diagnosed later in life and that a troubling number of teachers are unsure of what ADHD looks like in females, and therefore, there is a delay in, and lack of, referrals done by teachers for these female students. Moreover, Mohr-Jensen et al. (2019) found that over half of the teachers participating in their studies knew that females can be identified as hyperactive, though rarely, and less than half of the teachers knew that students with ADHD “are at an increased risk of developing depressive symptoms” (p. 215).

Anxiety and depression remain comorbid through females’ adult years and are often more serious than when they were younger (Chronis-Tuscano, 2022). However, it is thought that their depression could stem from an undiagnosed symptom of ADHD and their continued lack of connection, academic difficulties and negative feedback from their loved ones or authority figures (Chronis-Tuscano, 2022). Undiagnosed ADHD can make matters worse regarding their comorbid disorders as one age, solidifying the need for a more thorough medical diagnosis, as well as a greater understanding for educators on the ideology of ADHD in girls.

**Impulsivity and Inattentiveness**

While it is noted by Mohr-Jensen et al. (2019) that females can be hyperactive, Walters (2018) clarifies that impulsivity symptoms such as “verbal restlessness, talking excessively during class, blurting out answers to questions, or continuing to talk after others have settled” (p. 8) are things to watch for. Murray et al. (2019) found that “females are more likely to report internal feelings of restlessness rather than overt hyperactive/impulsive behaviours” (p. 8). Furthermore, it appears as though there is a gender bias among teachers when considering what ADHD looks like in students. Slobodin and Davidovitch (2019) confirmed this, noting that teachers report more inattention symptoms for girls, whereas teachers report far more rule-breaking behaviours and symptoms of anxiety and depression for boys. This is interesting, given that it is girls who are far more likely to present as suffering from anxiety or depression (Murray et al., 2019), yet teachers are recognizing it as an ADHD symptom more often in boys (Slobodin & Davidovitch, 2019), possibly because of a gender-stereotype of managing emotions. Hinshaw et al. (2021) note that girls are more likely to predominantly present their ADHD through symptoms of inattention compared to boys. As previously mentioned, Rogers et al. (2015) have found that children with ADHD, especially girls report strained relationships where there are issues collaborating with their teachers.

As well, Rogers et al. (2015) note that motivational issues are well documented in students with ADHD, thus it can be concluded that when an ADHD student is struggling with impulsivity or inattentiveness and is feeling constraints with their relationship with their teacher, it is possible that this is the reason for the lack of motivation. Particularly for girls, who mainly have their ADHD expressed through inattention and impulsivity, among other symptoms, and who feel they have a strained relationship with their teachers. Teachers should aim to be aware of this and understand that neurodiversity can manifest in many ways and should aim to build as many connections with their students as possible, especially those with ADHD, to help bridge this gap. One could also argue that creating a connection with the parents or guardians can also be helpful as it gives an insight into the child’s home life and their overall demeanour. Most of the time, these people know their children best, thus the connection you make with the adults in their lives could allow a teacher to ask questions about their likes and dislikes, habits or functioning at home and translate that to the classroom to help improve their lack of relationships in the school.

**Executive Functioning**

Hinshaw et al. (2021) make a point to mention that girls with ADHD are known to have better cognitive flexibility and motor response inhibition in comparison to boys. Molitor et al. (2019) states that girls with ADHD present more severe symptoms in executive functioning deficits (EFDs) than boys with ADHD. Furthermore, as to the results of their study, Molitor et al. (2019) note that “females, as well as adolescents with higher levels of hyperactive/impulsive symptoms and oppositional defiant behaviours, were more likely to exhibit clinically significant patterns of EFDs” (p.172). When reflecting on their findings, Molitor et al. (2019) mention that there are clear differences in the clinical profiles of female and male ADHD patients, but that females are less frequently diagnosed because historically the disorder has been viewed as male-dominant and females who may seek testing and diagnoses are being compared against a stereotypically male-based symptomology profile. In addition to the previously mentioned symptoms, it is important to consider the differences in executive functioning noted in the literature, such as that females often have deficits with planning skills in comparison to their neurotypical female counterparts (Molitor et al., 2019), and that females with ADHD have poorer decision-making skills in comparison to their neurotypical female counterparts (Skogli et al., 2017) when considering an ADHD diagnosis.

**Diagnostic Changes**

Often, the first step in diagnosis is a recommendation; whether made by a family member, friend, or teacher, it is imperative that people important to the child in their development be informed of how ADHD presents itself in girls (Chronis- Tuscano, 2022). In an educational setting, one would hope that the special education teacher is aware of the different symptoms of ADHD across sexes, however, they are not always in the classroom to monitor the children. As well, the symptoms often seen in girls are not seen as problematic compared to their male counterparts, usually, because girls are not disruptive, while boys are more hyperactive (Mowlem et al., 2019). If teachers were better educated on the typical manifestations of ADHD in girls, then they could access services faster and with a more thorough assessment. After a recommendation to a medical professional, subjective assessments are completed by parents and teachers to be assessed by the doctor (Chronis-Tuscano, 2022). It is argued that more assessments, such as observations, should be completed in a school or home setting by a mental healthcare professional. If this was completed, then someone who was an expert on the topic could witness first-hand the symptoms being shown and make an educated observation, while also including parent and teacher reports (Chronis-Tuscano, 2022). As well, when these assessments are completed, comorbidity should always be thought of when assessing the data. A more intensive interview process with the child could also be beneficial to understand how they are feeling and what they might be thinking when doing certain tasks (Mowlem et al., 2019). When a child is young, they do not understand the differences they possibly possess compared to their peers. It can be difficult to describe how one is feeling or explain a thought process taking place when doing specific tasks. Hence, if an interview test was conducted it would need to be researched extensively to ensure reliability and validity. Also, it would need to be developmentally appropriate. Observable data can be subjective, so, creating a reliable interviewing process could be beneficial for not only a medical professional but also parents and teachers to accommodate their needs throughout their everyday life.

In relation to the gender stereotyping often seen in an ADHD identification and diagnosis, it has been found that girls are more likely to be referred to a mental health professional for an ADHD diagnosis for emotional problems while boys often get referred for hyperactivity (Klefsjö et al., 2020). However, in the DSM-5-TR (2022), the only mention of emotional problems is stating that the diagnosis of ADHD can present symptoms like those seen in generalized anxiety disorder, depression, sleeping disorders or other learning disabilities. Even when breaking down the symptoms, there are no criteria for an irregular emotional pattern or feelings of anxiety. Klefsjö et al. (2020) suggested a more intensive psychiatric analysis for females with the presentation of these symptoms would aid with under and misdiagnosis. Emotional disturbances can often overshadow the impact of other symptoms like hyperactivity, inattention, or executive function, thus, ruling out ADHD and creating a misdiagnosis (Mowlem et al., 2019).

Lastly, a change in the age criteria could impact the diagnosis process for females as their symptoms often present later in life, however, the DSM-5-TR (2022) states that the onset of symptoms must be present before the age of 12. Currently, symptoms should start to be looked at in early adolescents to ensure all criteria are met for a diagnosis. Girls who have symptoms but not before the age of 12 could be greatly overlooked thus making treatment much more difficult (Murray et al., 2019). Today, labelling disorders based on age seems to be limiting on a multitude of levels for several people, especially since ADHD is comorbid with other disorders such as oppositional defiant disorder which can produce symptoms as young as five years old (Veenman et al., 2018).

**Treatments**

What is seemingly a controversial topic of discussion, treatment for ADHD, is not to be ignored. While very treatable with medication, therapy, counselling, behaviour management or learning new skills, Hinshaw et al. (2021) suggest that treatment should be gender specific. Highlighting the differences and treating them accordingly could be beneficial, but it could also be detrimental if not researched extensively. As previously discussed, girls with ADHD typically have more emotional problems and therefore, therapy and counselling are often prescribed at a young age, however, it has been found that there is no statistical difference between boys and girls with using counselling and family therapy as a treatment for ADHD, even though it is prescribed to girls almost twice as much as boys (Klefsjö et al., 2020). The issue remains that treatment needs to be individualized and not specific on gender (Chornis-Tuscano, 2022). Medical professionals need to be focusing on the display of symptoms and react accordingly regardless of sex. Treatments must be altered to fit the needs of the child and adjusted as they age or their symptoms progress. Without doing this, an injustice can be created as parents and teachers will notice that the treatment is not working, which could lead them to find resources of their own without the proper medical information (Chornis-Tuscano, 2022). In doing so, the child’s symptoms could increase, new symptoms could arise, or side effects could occur, putting the child at an increased risk even more than before.

Treatment among all children with ADHD needs to be extensively researched however treatments for children from racial minorities, those who live in a lower socio-economical neighbourhood and children from cultures who have extensive academic pressure have not been thoroughly researched (Chronis-Tuscano, 2022). The impact of these social implications can affect the stigma around diagnosis and treatment which can influence the decision to have a child tested, let alone treated for a mental disorder.

Finally, as ADHD has a genetic component it is suggested that women with ADHD should let their obstetrician and gynecologist know of their mental health status. While not a treatment and more of a proactive measure, the use of prenatal medication and vitamins, regular prenatal appointments and a healthy delivery can impact the child greatly in the future (Chronis-Tuscano, 2022). A woman with ADHD disclosing that information could be proactive in the fact that these practitioners can aid with appointment reminders, emotional imbalances, and any other symptoms that may be impacting the development of the baby.

**What Can Teachers do to Support the ADHD Girl?**

Walters (2018) notes that there are specific examples of interventions that teachers can do, can help address issues that ADHD girls are facing based on the unique symptomologies presented throughout this paper, such as:

Giving girls socially acceptable outlets for their energy, such as taking attendance down to the office or passing out work; making sure they are sitting at the front of the room and away from other talkers; or having a secret signal if you notice them drifting off. (p. 8)

To be able to initiate such actions in the first place, teachers need to be aware of the differences of how ADHD often presents in females. Mohr-Jensen, et al. (2019) found that 4 out of 10 teachers report a higher difficulty in recognizing ADHD in females. Moreover, Slobodin and Davidovitch (2019) found that “teachers were more likely to identify girls as having inattention problems than boys” (p. 11). While it is not the typical symptomology, it is noted that girls can have the hyperactive subtype of ADHD, which Mohr-Jensen et al. (2019) found that many teachers did not know. The implementation of special education courses throughout an educational program or teacher’s training could greatly impact the quality of education we offer to not only neurodivergent children but to all children.

When considering classroom management strategies for students with ADHD, Tegtmejer (2019), states that “it is often contra-productive to respond towards disturbances with structure, reprimand, or reinforcement” (p. 251). Besides classroom management, teachers need to be aware of the academic risks that are faced by students with ADHD, and in the context of this paper, particularly girls. In a study performed by Silva et al. (2020), it was found that “about a quarter of both boys and girls with ADHD did not reach the State benchmark testing for numeracy, writing, and spelling over their primary school years” (p. 1396). Furthermore, regarding reading difficulties, Silva et al. (2020) found that “boys with ADHD were twice as likely to be disadvantaged, and girls with ADHD were more than 3.5 times as disadvantaged as their non-ADHD peers, although, for reading, there were little gender differences between children with ADHD” (p. 1397). The Silva et al. (2020) study found several other interesting results, including that girls with ADHD are less likely to perform well on state benchmarking tests for spelling in comparison to neurotypical females as well a third of them perform poorly on numeracy testing and that “girls with ADHD were more disadvantaged in numeracy and less disadvantaged in writing and spelling compared with ADHD boys” (p. 1398).

Hamilton and Astramovich (2016) outline four different teaching strategies to use to help support students with ADHD. First, given that ADHD symptoms (at any part of the spectrum) can lead to challenging social interactions with authority figures, teachers would benefit from conflict resolution training (Hamilton & Astramovich, 2016). This could also play a big role in the lack of connections reported in the findings by Rogers et al. (2015). Second, making modifications to the classroom environment, “specifically, teachers could allow time in the classroom for individualized study time with a tutor, such as an older student or classroom volunteer” (Hamilton & Astramovich, 2016, p. 457). This tutor can assist the student one-on-one by helping them get organized and get focused (Hamilton & Astramovich, 2016). Thirdly, addressing the student’s organizational deficits by teaching them strategies regarding organizational training so that they become responsible for their academic success by submitting their class work on time and keeping track of their due dates and assignments, can go a long way in helping students manage their ADHD (Hamilton & Astramovich, 2016). This can be particularly useful to girls, as Molitor et al. (2019) have pointed out that girls tend to struggle more with their planning skills, and this strategy by Hamilton and Astramovich (2016) directly addresses that.

Finally, and perhaps most controversially as different government laws and school board policies may prohibit teachers from intervening or taking part in this suggestion, is that teachers can help play a role in ensuring that students with ADHD are taking their medication by taking measures such as setting alarms, using an hourglass, or writing in a journal (Hamilton & Astramovich, 2016). While some teachers may feel uncomfortable doing so when considering the inattentiveness, forgetfulness, and problems with planning that girls with ADHD are more likely to face, if such an intervention is permitted, a teacher should strongly consider helping with it as it could easily lead to the child’s continued success. The main point to take away is that increased education in special education is needed in the field. As ADHD is common and seems to be increasing, specific training in this mental disorder could greatly benefit students, specifically, the girls who fall between the cracks.

**Conclusion**

It is evident that girls with ADHD face a different set of symptoms and expressions of ADHD than their male classmates. Specifically, in females, ADHD tends to manifest as anxiety and/or depression, girls tend to show more inattention and impulsivity, and there are differences between the executive functioning impairments expressed by females compared to males. There are differences and contradictory findings, thus, more studies need to be conducted to truly understand the magnitude of the onset, presentation, and treatment of ADHD in girls (Walters, 2018). Understanding these differences and noting that females are often underdiagnosed, is very important for teachers, for several reasons. Without the proper knowledge and understanding of how ADHD can present differently in females, teachers are less likely to refer them to the proper services for diagnoses and treatment and thus, lack the proper accommodations and modifications in the classroom.

Furthermore, teachers must be aware of how these symptoms present differently so that they can plan accordingly to meet the child’s needs by using strategies to help them manage the disorder and still see success in school. It is important to note that “success in school” is not simply academic, while it is noted in this paper that girls with ADHD face unique academic challenges, they are also facing emotional and social challenges, especially in the relationships, they are forming with their teachers. Being aware of this will not only make the teacher’s job easier but hopefully make the teacher show more compassion and understanding for their students once they have a better understanding of ADHD and how it presents in girls, which will thereby make the entire schooling experience a more positive one for girls with ADHD.

Finally, a change in diagnostic criteria, process and measures could be beneficial for providing a more accurate representation of a female’s symptomology and thus, maximizes the ability to receive effective treatment. Proactive measures can take place to assist with the genetic components of ADHD and medical professionals should always be made aware of any underlying conditions, no matter how well one functions in society. More research needs to be conducted on multiple perspectives of ADHD to accurately represent different populations and increase access to services to aid with the treatment of ADHD.

**References**

American Psychological Association. (2022). *ADHD*. <https://www.apa.org/topics/adhd>

American Psychiatric Association Publishing. (2022). *Diagnostic and statistical manual of mental disorders, fifth edition text revision: Dsm-5-Tr*.

Chronis‐Tuscano, A. (2022). ADHD in girls and women: A call to action – reflections on Hinshaw et al. (2021). *Journal of Child Psychology and Psychiatry*, *63*(4), 497–499. <https://doi.org/10.1111/jcpp.13574>

Hamilton, N. J., & Astramovich, R. L. (2016). Teaching strategies for students with ADHD: findings from the field. *Education, 136*(4), 451-459.

Hinshaw, S. P., Nguyen, P. T., O’Grady, S. M., & Rosenthal, E. A. (2021). Annual Research Review: Attention‐deficit/hyperactivity disorder in girls and women: underrepresentation, longitudinal processes, and key directions. *Journal of Child Psychology and Psychiatry.* <https://doi.org/10.1111/jcpp.13480>

Klefsjö, U., Kantzer, A. K., Gillberg, C., & Billstedt, E. (2020). The road to diagnosis and treatment in girls and boys with ADHD – gender differences in the diagnostic process. *Nordic Journal of Psychiatry*, *75*(4), 301–305. <https://doi.org/10.1080/08039488.2020.1850859>

Martin, J., Taylor, M. J., Rydell, M., Riglin, L., Eyre, O., Lu, Y., Lundström, S., Larsson, H., Thapar, A., & Lichtenstein, P. (2018). Sex‐specific manifestation of genetic risk for attention deficit hyperactivity disorder in the general population. *Journal of Child Psychology and Psychiatry, 59*(8), 908–916. <https://doi.org/10.1111/jcpp.12874>

Mohr-Jensen, C., Steen-Jensen, T., Bang-Schnack, M., & Thingvad, H. (2019). What Do Primary and Secondary School Teachers Know About ADHD in Children? Findings From a Systematic Review and a Representative, Nationwide Sample of Danish Teachers. *Journal of Attention Disorders, 23*(3), 206–219. <https://doi.org/10.1177/1087054715599206>

Molitor, S. J., Oddo, L. E., Eadeh, H.-M., & Langberg, J. M. (2019). Executive Function Deficits in Adolescents With ADHD: Untangling Possible Sources of Heterogeneity. *Journal of Emotional and Behavioral Disorders, 27*(3), 165–177. <https://doi.org/10.1177/1063426618763125>

Mowlem, F., Agnew-Blais, J., Taylor, E., & Asherson, P. (2019). Do different factors influence whether girls versus boys meet ADHD diagnostic criteria? sex differences among children with high ADHD symptoms. *Psychiatry Research*, *272*, 765–773. <https://doi.org/10.1016/j.psychres.2018.12.128>

Murray, A. J., Booth, T., Eisner, M., Auyeung, B., Murray, G., & Ribeaud, D. (2019). Sex differences in ADHD trajectories across childhood and adolescence. *Developmental Science, 22*(1), 1-11. <https://doi.org/10.1111/desc.12721>

Rogers, M., Bélanger-Lejars, V., Toste, J. R., & Heath, N. L. (2015). Mismatched: ADHD symptomatology and the teacher-student relationship. *Emotional and Behavioural Difficulties, 20*(4), 333–348. <https://doi.org/10.1080/13632752.2014.972039>

Silva, D., Colvin, L., Glauert, R., Stanley, F., Srinivas Jois, R., & Bower, C. (2020). Literacy and Numeracy Underachievement in Boys and Girls With ADHD. *Journal of Attention Disorders, 24*(10), 1392–1402. <https://doi.org/10.1177/1087054715613438>

Skogli, E. W., Andersen, P. N., Hovik, K. T., & Øie, M. (2017). Development of Hot and Cold Executive Function in Boys and Girls With ADHD. *Journal of Attention Disorders, 21*(4), 305–315. <https://doi.org/10.1177/1087054714524984>

Slobodin, O., & Davidovitch, M. (2019). Gender Differences in Objective and Subjective Measures of ADHD Among Clinic-Referred Children. *Frontiers in Human Neuroscience, 13*, 441–441. <https://doi.org/10.3389/fnhum.2019.00441>

Tegtmejer, T. (2019). ADHD as a classroom diagnosis. An exploratory study of teachers' strategies for addressing 'ADHD classroom behaviour'. *Emotional and Behavioural Difficulties, 24*(3), 239–253. <https://doi.org/10.1080/13632752.2019.1609271>

Veenman, B., Luman, M., & Oosterlaan, J. (2018). Efficacy of behavioral classroom programs in primary school. A meta-analysis focusing on randomized controlled trials. *PLOS ONE*, *13*(10). <https://doi.org/10.1371/journal.pone.0201779>

Walters, A. (2018). Girls with ADHD: Underdiagnosed and untreated. *The Brown University Child and Adolescent Behavior Letter, 34*(11), 8–8. <https://doi.org/10.1002/cbl.30337>