

ADHD in Girls and Its Effect on Depression

Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is a neurological disorder that primarily affects executive function, which is related to low motivation levels, low task initiation, and poor organization. Studies show the link between ADHD, adolescent girls, depression, and its effect on the quality of life. This review examines the relationship of the above variables as well as criticizes the gaps in the research done in this field.

ADHD In School

Adolescents with ADHD have different levels of academic motivation, as demonstrated in a study by Smith et al. conducted in 2019. The study found a significant difference in academic motivation in those with ADHD and those without, as well as a difference in the self-reported levels of intrinsic and extrinsic motivation and their correlation to academic performance. Smith et al. studied 302 students, half of which had been diagnosed with ADHD, by issuing self-reports and assessing homework performance, GPA, math fluency, and reading accuracy. Those with ADHD reported lower levels of extrinsic and intrinsic motivation than those without, showing that ADHD substantially affects the learning process. This study recommended interventions earlier on in the school career so that growth mindsets and self-esteem can be strengthened. The lack of support and understanding for students with ADHD is correlated with lower levels of academic motivation, and subsequently poorer self-esteem and self-efficacy.

The cycle of intrinsic motivation and success is diminished in adolescents with ADHD, partly due to executive dysfunction and partly due to the school system. This idea is reinforced

through a study by Major et al. who studied the association between academic failure in high school and students with ADHD. Major et al. compared academic success by measuring the GPA, intrinsic/extrinsic motivation, and executive motivation of 50 students (32 with ADHD). Those with ADHD showed significantly lower GPAs, self-rated importance of academics, parent-rated goal setting, parent-rated metacognition, and task-based cognitive flexibility. There were no significant group differences in self-rated academic interest or task-based working memory, response inhibition, delay discounting, or risky decision making. This study indicated that both motivational and goal-directed aspects of self-regulated learning are impaired in adolescents with ADHD. Thus, high school students with ADHD may struggle to self-motivate to devise and execute work completion plans— activities that may remain difficult even when they are able to self-motivate. These two studies support the theory that those with ADHD struggle in school due to low executive function, and subsequent lower motivation levels, self-efficacy, and academic success.

ADHD In Girls

Girls are prone to underdiagnosis of ADHD due to the lack of research on ADHD traits in girls. Girls tend to internalize problems more, making issues harder to identify. A study by Skogli et al. conducted in 2013 explored the gender differences in ADHD traits. The study evaluated the gender differences in ADHD traits through parent reports and self-reports. These results suggested that males with ADHD are more prone to behavioral problems than girls. At the same time, girls are more likely to have higher levels of anxiety and depression. The behavioral problems are more likely to be noticed by the parents than the emotional ones. Because of this, girls with ADHD may often be overlooked compared to boys with ADHD.

Furthermore, with the combination of internalization, low recognition, and executive function deficits, girls are more susceptible to developing learned helplessness. Learned helplessness is a psychological block where individuals stop trying after experiencing multiple failures. A study conducted by Sibley et al. explains how this concept impacts girls with ADHD. The study uses a reporting scale, Self-Efficacy for Self-Regulated Learning (SESRL), to measure the beliefs that students hold about their ability to use self-regulated learning. The study found that compared to boys with ADHD and those without ADHD, girls with ADHD reported having significantly lower levels. Specifically, girls with ADHD were only 50% confident (at the “maybe” range) out of 100% that they could regulate their learning effectively, compared to girls without ADHD who were around 76% confident in their self-regulatory skills. This self-efficacy deficit can be a result of repeatedly not getting the support and validation that is needed. This issue is amplified by the fact that girls are less likely to get diagnosed because of their tendency to internalize problems, and the fact that those with ADHD are less likely to succeed in academic settings. Because of this, girls with ADHD may be more at risk of developing learned helplessness, and not reaching out due to the continuous cycle of failure and self-doubt.

ADHD and Depression

Those with ADHD have an increased susceptibility to developing depression than those without. Depression and ADHD are often comorbid; depressive symptoms and ADHD symptoms overlap, leading to an increased likelihood of having both. A study by Mayer et al. in 2022 investigates the reasoning behind this. The study was conducted through self-report scales on emotional regulation and an ambiguous cue-conditioning procedure. The cue-conditioning tested what emotional regulation strategies were being used when faced with upsetting issues. The procedure shows that those with ADHD were more prone to using maladaptive (self-blame,

catastrophizing) strategies rather than adaptive (positive reappraisal, acceptance) ones. Maladaptive strategies are more commonly used for those at an increased risk for comorbid depression. This is due to the fact that executive dysfunction heavily interferes with emotional processing and coping. Essentially, those with ADHD possess coping strategies that lead them to be at an increased risk of developing depression.

To expand on this, a study by Bron et al. in 2016 explains the similarities between depression and ADHD symptoms by comparing traits between the two. The study uses self-report scales to examine the prevalence of ADHD symptoms in those with varying levels of depression. As the severity of depression increased, so did the prevalence of ADHD traits. This correlation strengthens the relationship between depression, ADHD, and their comorbidity. Showing this relationship highlights how one condition may affect the other, especially when an adolescent is growing up with insufficient support.

Conclusion

It can be concluded that girls with ADHD are at an increased risk of depression. Unfortunately, those with ADHD are often placed in an unsupportive school environment that amplifies their low motivation levels. On top of that, girls, specifically those with ADHD, tend to internalize their issues, leading them to develop learned helplessness (a depression symptom) and overall continue to not get the support and accommodations they need. To add to this already dangerous cycle, those with ADHD are more likely to develop depression. For many girls with ADHD, their ADHD has already been overlooked throughout their childhood, leading to depressive mindsets. This paired with the 'normal' risk for depression eventually results in an even higher increased risk of depression by the time they are adolescents. Overall, adolescent girls with ADHD are in an unfortunate predicament regarding their risk of developing

depression, as they are in a disadvantaged position in terms of receiving support. Moving forward there should be earlier screenings for ADHD put in place in school. Behavior problems should not be identified as the only indicator, since more often than not, this overlooks girls. Instead, more SESRL assessments, as well as depression assessments as students enter adolescence, should be conducted by schools to ensure that those who present the lesser noticed traits of ADHD still get identified.

Figures

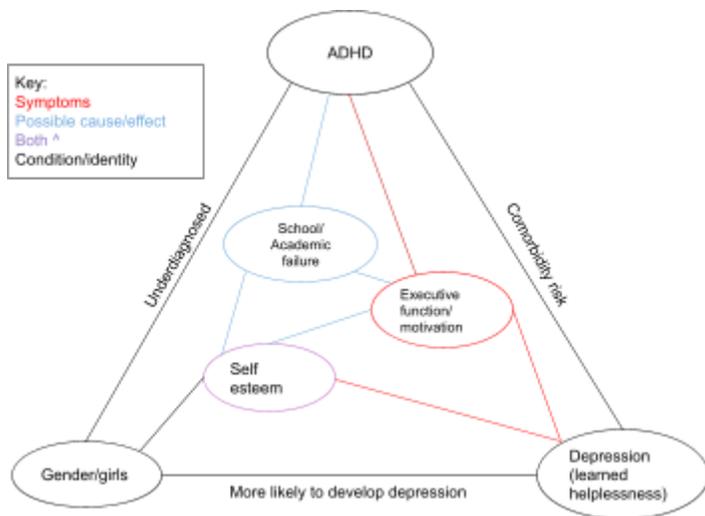


Figure 1

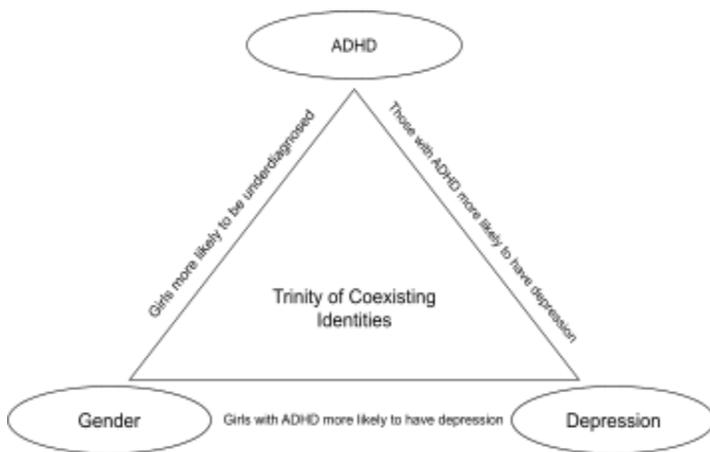


Figure 1 simplified

Gaps in the Literature

Much of the research done as of today lacks intersectionality in regards to race. In the United States of America, women of color are systemically prone to receiving a worse education, due to poverty, racist educational environments, etc. which may play a role in the development of depression. It is also important to note that ADHD may present differently in women of color than in white women due to differences in societal expectations. For example, racial stereotypes characterizing black girls as “loud” and “chatty” may prevent others from noticing traits of hyperactivity. Also, stereotypes such as Asian girls being “intelligent” may cause others to overlook other struggles outside of school work. These stereotypes can be combated by proper portrayal of minorities in media as well as educating the general public (especially teachers) on ADHD traits. By including more representation of people of color with ADHD, these traits will stop being perceived as primarily an issue for white boys. By creating awareness through media and gaining knowledge through minority-centered research, more people with ADHD can access and receive the assistance that they need.

Citations

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