Exploring the Relationships between Attention-Deficit/Hyperactivity Disorder Symptoms, Mental Health, Impairment, and Sexual Dysfunction

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Abstract

Attention-Deficit/Hyperactivity Disorder (ADHD) occurs in adulthood, yet its association with sexual dysfunction remains insufficiently understood. The present study employed a quantitative cross-sectional design to examine associations among ADHD symptoms and sexual dysfunction in adults. The relationship between sexual dysfunction and other variables, such as anxiety and depressive symptoms as well as functional impairment, were assessed as well. A total of 197 participants (147 females, 50 males; ages 19-48) from university and community settings completed a series of online self-report measures assessing ADHD symptom severity, anxiety and depressive symptoms, functional impairment, and sex-specific sexual functioning. Separate analyses were conducted for female and male participants using linear regression models. ADHD symptom severity was not significantly associated with sexual functioning in either females or males. Depressive symptoms were also not associated with sexual functioning in either group. Higher anxiety symptoms were significantly associated with lower sexual functioning among females, but not among males. Across both males and females, higher functional impairment was associated with sexual dysfunction. Results highlight the importance of considering functional impairment and anxiety when examining sexual dysfunction in individuals. Implications for clinical assessment and future research directions are discussed.

Introduction

This introduction begins by providing a general understanding of mental health disorders and mental health more broadly. It then introduces sexual dysfunction and sexual health. The thesis then examines the relationship between sexual dysfunction with attention-deficit/hyperactivity disorder (ADHD), anxiety, and depression. Comorbidities between these disorders are discussed, along with a discussion on functional impairment.

Mental Health Disorder

A mental health disorder can be understood as a clinically meaningful disturbance in thought, emotional control, or behaviour, which arises from dysfunction in psychological, biological, or developmental processes (World Health Organization [WHO], 2022). Such disorders typically lead to considerable distress or difficulties in important areas of life, including work, relationships, or daily activities (American Psychiatric Association, 2022). According to the WHO (2022), an estimate of one in eight people worldwide has experienced a mental health disorder. Research on undergraduate students in the United States showed that mental health concerns were widespread across different conditions (Kang et al., 2021). Conditions such as compulsive sexual behaviour, body-focused repetitive behaviours (BFRBs), body dysmorphic disorder, health anxiety, and obsessive-compulsive disorder (OCD), were reported in 2% to 12.3% of students, while 22% experienced depression (Kang et al., 2021). In a comparable manner, Blanco et al. (2008) explored the prevalence of mental health disorders among college-age individuals in the United States. The sample included individuals aged 19 to 25 years, comprising both those attending college and those not attending college within the past 12 months, for a total sample of 5,092 participants. Among individuals attending college, nearly half met criteria for at least one psychiatric disorder in the previous year. Alcohol use disorders

were the most prevalent condition (20.37%), followed by personality disorders (17.68%). Anxiety disorders were reported by 11.94% of college students, mood disorders by 10.62%, and nicotine dependence by 14.55% (Blanco et al., 2008).

Numerous researchers have documented similar prevalence patterns of mental health disorders in university student populations. Mason et al. (2025) researched the prevalence, age of onset, and common Diagnostic and Statistical Manual – 5 (DSM-5; American Psychiatric Association, 2013) mental disorders among first-year university students. They gathered data between 2017 and 2023 from a total of 72,288 first-year students attending 77 universities across 18 countries. Approximately 65% screened positive for at least one lifetime mental disorder, and 57.4% screened positive for a mental disorder within the previous 12 months. Female students demonstrated higher rates of internalizing disorders, whereas male students showed a higher prevalence of substance use disorders and Attention-Deficit/Hyperactivity Disorder (ADHD).

In a related study, Al-Jayyousi et al. (2025) reported high rates of mental health conditions among university students in Qatar, with 45.5% reporting a lifetime diagnosis, most commonly anxiety (38.2%) and depression (27.9%). Students with a history of mental disorder reported higher perceived stress and greater difficulty managing stress. Disordered eating behaviours were also prevalent, with 11% reporting anorexia, 11% reporting bulimia, and 34.5% reporting binge eating in the past 12 months. Likewise, Ochnik et al. (2021) found elevated levels of stress, depression, and anxiety among university students during the early phase of the Coronavirus disease (COVID-19) pandemic, with higher risk being observed among female students, those residing in towns, and individuals enrolled in undergraduate Bachelor's programs. Auerbach et al. (2018) reported similarly high prevalence rates of mental disorders

among first-year university students, complementing the findings of Al-Jayyousi et al. (2025) and Ochnik et al. (2021). In their large multinational survey, major depressive episodes (21.2% lifetime and 18.5% 12-month prevalence) and generalized anxiety disorder (18.6% lifetime and 16.7% 12-month prevalence) were the most prevalent conditions, while lower prevalence rates were observed for panic disorder (5.0% lifetime and 4.5% 12-month prevalence), mania (3.5% lifetime and 3.1% 12-month prevalence), alcohol use disorder (6.8% lifetime and 6.3% 12-month prevalence), and substance use disorders (5.1% lifetime and 3.0% 12-month prevalence).

In terms of prevalence in other populations, research showed that justice-involved veterans experience high rates of mental health disorders across multiple settings, including prisons, jails, courts, and community-based programs (Blodgett et al., 2015). Research on mental health among individuals with Human Immunodeficiency Virus (HIV) indicated that many individuals in North America were also diagnosed with a mental health disorder (Langa et al., 2023). Depression (39%) and anxiety (28%) were the most common mental health conditions in this population, and their prevalence has increased over time (Langa et al., 2023). These findings showed that mental health disorders are prevalent across different populations and contexts.

Those who lived with a mental health disorder experienced negative impacts across many areas of their lives. Bruffaerts et al. (2018) found that students who experienced mental health difficulties such as depression, anxiety, and ADHD, tended to perform significantly worse academically. Mental health disorders such as stress, depression, and anxiety could also negatively affect work performance (Gartner et al., 2012). The authors noted that beyond reduced productivity, these difficulties may have serious consequences in certain professions, putting at risk both the caregiver’s well-being and the safety of their patients. When examining

the quality of life of individuals with a mental health disorder, it becomes evident that difficulties in work, relationships, and daily functioning are common (Connell et al., 2012). Connell and colleagues (2012) emphasize that symptoms of mental disorder and related distress can disrupt daily life, making even basic tasks and employment difficult. Additionally, challenges in forming and maintaining relationships, along with stigma and feelings of isolation, are highlighted as significant factors reducing quality of life (Connell et al., 2012). The authors also noted that everyday activities such as self-care, cooking, and shopping may become burdensome, and employment is often affected due to both symptoms and social withdrawal (Connell et al., 2012).

In summary, the body of literature showed that mental health disorders are highly prevalent across diverse populations and settings. Beyond prevalence, studies indicated that these disorders had wide-ranging effects on quality of life. The severity of symptoms further shaped how individuals experienced and evaluated their well-being. Understanding the impact of mental health disorders, both on those directly affected and on those who know someone with such difficulties, highlights that although these conditions disrupt daily functioning, the broader concept of mental health involves an ongoing journey of resilience, coping, and overall well-being.

Mental Health

The definition of mental health varies depending on theoretical frameworks and cultural contexts (Manwell et al., 2015). According to Manwell and colleagues (2015), it is described either as the absence of mental illness or as a state of well-being shaped by biological, psychological, and social factors that influence an individual's capacity to function in daily life. Mental health is a crucial aspect of living, encompassing the ability to cope with stress, realize one's potential, contribute to society, and exercise agency, autonomy, and control in adapting to

one's environment (Manwell et al., 2015). The authors further emphasize that social and environmental conditions, such as access to basic resources and social justice, also play a critical role in shaping the understanding of mental health (Manwell et al., 2015). A clear understanding of mental health is therefore essential for research, policy, and practice to adequately meet the needs of diverse populations (Manwell et al., 2015).

Sexual Dysfunction

According to the Diagnostic and Statistical Manual of Mental Disorders -5 Text Revision (DSM-5-TR; American Psychiatric Association, 2022), sexual dysfunction (SD) encompasses conditions such as delayed ejaculation, Erectile Disorder (ED), female orgasmic disorder, female sexual interest/arousal disorder, genito-pelvic pain/penetration disorder, male hypoactive sexual desire disorder, and premature ejaculation. They also included sexual difficulties caused by substances or medications, along with other specified or unspecified forms of sexual difficulties (American Psychiatric Association, 2022). These conditions are broadly described as varied in nature but share the common feature of causing significant interference with an individual's sexual response or sexual satisfaction (American Psychiatric Association, 2022). SD is a common but often underreported condition that affects individuals across the lifespan. Its prevalence varies depending on age, gender, cultural context, and the specific type of dysfunction (Nappi et al., 2016).

Nappi and colleagues (2016) reported findings from a large-scale research study, which examined women with Female Sexual Dysfunction (FSD) between the ages of 18 and 102 years in the United States. The results showed that 44.2% experienced at least one type of sexual problem, with low desire reported by 38.7%, low arousal by 26.1%, and difficulties with orgasm by 20.5% (Nappi et al., 2016). Another study indicated that 46.2% of women reported FSD, and

that the prevalence increased with age (Khani, 2013). In men, McCabe et al. (2016) found that most forms of SD increased with age, except for Premature Ejaculation (PE). The prevalence of PE has been estimated to be between 8% and 30% across age groups (McCabe et al., 2016). Similarly, Rosen's (2000) study showed that sexual problems were common in both men and women, and frequently interfered with interpersonal relationships and quality of life.

As noted above, SD could significantly affect quality of life. For women, symptoms of Vulvovaginal Atrophy (VVA) might negatively impact intimacy, relationships, and self-esteem, contributing to a decline in well-being (Nappi et al., 2016). However, many older women continue to report sexual satisfaction despite reduced function, indicating that not all sexual symptoms diminished quality of life (Nappi et al., 2016). Rosen (2000) similarly reported findings that support this, showing that SD could substantially affect mood, self-esteem, interpersonal functioning, and overall life satisfaction in both men and women. For instance, men with erectile dysfunction often report higher levels of depression, while men and women experiencing arousal or desire problems tended to describe reduced physical and emotional satisfaction with their partners, along with lower overall life satisfaction (Rosen, 2000). In contrast, Vale and Bisconti's (2025) study showed that higher sexual satisfaction was closely tied to better mental health outcomes, such as reduced depressive mood, anxiety, loneliness, and stress, and increased confidence, self-worth, and perceived control.

To continue the topic of SD, it is important to understand the causes. Hormonal, psychological, and relational factors were suggested as potential contributors, but existing research remains limited and at times inconsistent (Rosen, 2000). It also appears that certain medications, such as antidepressants, could cause delayed or absent orgasm in both men and women (Rosen, 2000). A study by Heiman (2002) demonstrated that SD was shaped by a

combination of factors, including physical health, psychological well-being, social circumstances, and previous sexual experiences. For example, early sexual experiences were discussed in the literature as potential risk factors for later sexual difficulties, including erectile dysfunction, premature ejaculation, and reduced sexual desire (Heiman, 2002). Among early sexual experiences, childhood sexual abuse (CSA) was discussed in the literature as a potential risk factor for later sexual dysfunction. Najman et al. (2005) analyzed data from 1,793 Australian adults using structured questionnaires to examine the association between CSA and SD in adulthood. The results indicated that, among men, non-penetrative CSA was generally not associated with increased SD, except for oral sex abuse, which was linked to higher rates of SD (Najman et al., 2005). In contrast, women showed significantly higher rates of SD across both non-penetrative and penetrative CSA experiences. Overall, these articles suggest that SD arises from a complex mixture of biological, psychological, social, and experiential factors.

In addition to identifying potential causes, exploring the risk factors linked to SD is important. A study conducted by Khani (2013) identified several risk factors for female SD, such as advancing age, lower levels of education, reduced frequency of sexual intercourse, longer marital duration, having three or more children, having a spouse aged 40 years or older, and unemployment. Overall, Rosen (2000) confirmed some of these findings for both men and women and further emphasized the role of mental health, noting that conditions such as anxiety and depression, as well as the use of certain medications, also increased the risk of SD.

Moreover, stigma around sexual functioning is another factor that often makes it difficult for people to talk about their struggles or reach out for support. An article by Bergvall and Himelein (2014) examined attitudes towards seeking professional help for sexual dysfunctions among college students in the United States and Sweden, and found that perceived stigma was

one factor influencing whether someone seeks treatment for sexual difficulties, as it was known to discourage people with mental health concerns from pursuing care. Nonetheless, participants reported moderate self-stigma as well, suggesting the possibility that while they might judge themselves negatively in relation to sexual problems, they might not at the same time anticipate similar judgments from friends or family (Bergvall & Himelein, 2014). To conclude, most of the articles suggest that more research needs to be conducted on the causes, risks, prevalence, and treatment of SD. Sexual difficulties are closely tied to both emotional and physical satisfaction within relationships and to overall happiness, highlighting the connection between sexual health and general well-being (Nappi et al., 2016).

Sexual Health

Sexual health refers to a state of emotional, physical, mental, and social well-being in connection to sexuality, rather than just the absence of illness or dysfunction (Coleman, 2002). It involves cultivating a positive and respectful view of sexuality and relationships (Coleman, 2002). To add to research on this topic, many articles discussed the importance of sex education in raising awareness of sexual health. For example, McKay's (2009) article reported that well-developed sexual health education programs were shown to be effective in helping young people lower their risk of sexually transmitted infections, HIV, and unintended pregnancy. These programs did not increase sexual activity; rather, they delayed sexual initiation, reduced risky behaviours, and promoted greater use of condoms and other forms of contraception (McKay, 2009). Becasen and Hogben's (2015) findings support this result by concluding that sexual health programs improved knowledge, attitudes, and behaviours. Generally, taking a comprehensive approach to sexual health was often grounded in its benefits for preventing and controlling sexually transmitted infections, HIV, and unintended pregnancies (Wellings & Johnson, 2013).

However, research also indicated that sexual health was not limited to disease prevention but additionally encompassed promoting positive and respectful relationships, fostering self-esteem, and supporting overall well-being (Vasconcelos et al., 2024). Sexual health is an important topic to understand because sexual difficulties are often connected to emotional well-being and quality of life, as research shows associations between SD, psychological distress, and reduced relational satisfaction (Laumann et al., 1999). Further, the literature reviewed mentions that sexual health is not limited to disease prevention, but also involves self-esteem, respectful relationships, and overall quality of life. Given that mental health disorders can affect mood regulation, stress, functional impairment, and interpersonal dynamics, this broader conceptualization provides a clear rationale for examining SD as a domain in which the wider impacts of psychopathology may be observed.

Attention-Deficit/Hyperactivity Disorder and Sexual Dysfunction

ADHD is a neurodevelopmental disorder of the brain marked by ongoing difficulties with attention, hyperactive behaviour, and impulsive actions, which can negatively affect daily functioning and development (Skwara et al., 2024). It typically appears during childhood, and in most cases, the symptoms persist into adulthood (Skwara et al., 2024). According to an article by Skwara and colleagues (2024), the primary features of ADHD involve challenges in three main areas: inattention, hyperactivity, and impulsivity. Inattention can appear as trouble maintaining concentration, frequent careless mistakes, and being easily sidetracked. Hyperactivity may show up as restlessness, difficulty remaining seated, or constant fidgeting. Impulsivity often includes acting quickly without considering consequences or interrupting others (Skwara et al., 2024). Alongside these symptoms, many people with ADHD struggle with emotional regulation, such as managing feelings or experiencing sudden mood shifts, and with executive functions,

including organization, time management, and planning (Skwara et al., 2024). Together, these difficulties can influence academic performance, work responsibilities, and social relationships (Skwara et al., 2024).

Having outlined the main features of ADHD, it is also important to consider its prevalence. Wozniak (2025) stated that ADHD is recognized as the most frequently identified neurodevelopmental disorder globally, affecting about 5-8% of children and between 4.4-5.3% of adults. However, Hertz et al. (2022) reported a slightly different prevalence from a global meta-analysis, suggesting that ADHD occurs in 5.3% of children and adolescents and in 2.5% of adults. Altogether, these findings suggest that while ADHD is consistently common across studies, prevalence estimates may vary depending on the study methodology, sample, cultural context, and other influencing factors.

Certain research has also been conducted on the prevalence of SD in those who have ADHD. For instance, according to a systematic review by Soldati et al. (2020), SD was relatively common among adults with ADHD. The review reported SD in 39% of men and 43% of women with ADHD. These prevalence rates were higher than the control group that served as the general population, which was 17% for men and 20% for women. Furthermore, it seems that biological sex and gender differences play a role in how SD presents in individuals with ADHD, with research sometimes showing different patterns between men and women (Wozniak, 2025). In Wozniak's (2025) review, the author noted that women with ADHD engaged in unprotected sex more frequently than women without ADHD as well as both men with and without ADHD. Conversely, men with ADHD reported having a greater number of sexual encounters and partners compared to women with ADHD. Another biological sex and gender difference is mentioned in Niazof et al.'s (2019) article, where the authors indicated that individuals with

ADHD symptoms experienced a stronger impact on problematic pornography use among men compared to women.

In addition, certain articles reported that ADHD might have an effect on different sexual behaviours and functions. For instance, Abdel-Hamid et al. (2021) recruited participants from an outpatient clinic that included individuals with ADHD and a control group without ADHD. They explained that impulsivity, a core feature of ADHD, was closely associated with greater sexual risk-taking, casual sexual encounters, and a high number of different partners (Abdel-Hamid et al., 2021). These patterns were discussed in relation to how ADHD symptomatology might negatively influence sexual health and contribute to difficulties in sexual functioning (Abdel-Hamid et al., 2021). Margherio et al. (2021) supported these findings with a study conducted among high school students aged 13 to 17 years. They reported that among adolescents with ADHD, frequent relationship changes and unprotected sex were identified, pointing to emotional dysregulation as a factor contributing to risky sexual behaviours (Margherio et al., 2021). Isaksson et al. (2018) reported similar findings, further underlining that individuals with ADHD engaged more frequently in risky sexual behaviours. Additionally, a study similar to that of Isaksson et al. (2018) was recently conducted by Offranc et al. (2025) in a university setting that yielded comparable results.

Comparably, Young et al. (2023) found that individuals with ADHD were more likely to engage in risky sexual behaviours, including infidelity, unprotected sex, and had higher rates of sexually transmitted infections, although these patterns were less evident among male participants with ADHD compared to female participants. Wozniak (2025) presented similar results, stating that individuals with the hyperactive-impulsive presentation of ADHD were more likely than those without ADHD to engage in risky sexual behaviours, such as having several

partners, unprotected intercourse, and experiencing higher rates of sexually transmitted infections (STIs) and early pregnancies. Wozniak (2025) also concluded that prescribed medications such as methylphenidate and amphetamine were associated with a reduced risk of STIs and HIV. This reduced risk may be related to the improvements in functioning and self-regulation these medications provided (Wozniak, 2025).

Moreover, Abdel-Hamid et al. (2021) suggested that individuals with ADHD are more likely to have emotional instability and attachment challenges that might play a role in sexual difficulties, including problems with orgasm and reduced satisfaction. Supporting this finding, other articles have shown that those with ADHD reported lower overall sexual satisfaction (Young et al., 2023). Results from Jensen-Fogt and Pedersen (2025) mentioned that ADHD symptoms, particularly the primarily inattentive presentation, are correlated with reduced orgasmic consistency in women. Additionally, the use of anxiety or depression medication, as well as sexual orientation, further influenced orgasmic consistency (Jensen-Fogt & Pedersen, 2025).

Consistent with these articles, Amani Jabalkandi et al. (2020) conducted a study in a Tehran clinic and reported that both men and women with certain ADHD symptoms exhibited significantly poorer sexual functioning. Women showed poorer outcomes in desire, arousal, lubrication, orgasm, satisfaction, and vaginal pain. Similarly, men with ADHD demonstrated impairments in erectile function, orgasmic function, intercourse satisfaction, and overall satisfaction (Amani Jabalkandi et al., 2020). According to the article, SD in adults with ADHD might be related to inattention, challenges with arousal and orgasm, negative self-perceptions, and relationship difficulties. Likewise, Soldati et al. (2020) indicated that individuals with ADHD experienced poorer outcomes in sexual health compared to those without

the disorder. They reported reduced sexual satisfaction, heightened sexual desire, increased frequency of masturbation, and a greater occurrence of sexual dysfunctions (Soldati et al., 2020). These concerns were connected to core ADHD traits such as difficulties with attention, impulsivity, and hyperactive behaviour (Soldati et al., 2020).

Contrary to these findings, Hertz et al. (2022) conducted an online survey showing that individuals with ADHD did not experience significantly higher rates of SD, such as ED, PE, reduced orgasm satisfaction, sexual pain, and difficulties achieving orgasm, than those without the disorder. In another study, male participants were recruited from a treatment program for sexual addiction, and the authors used multiple assessment tools to examine the potential link between sexual addiction and ADHD, while also exploring trauma responses and other co-occurring disorders (Blankenship & Laaser, 2004). They concluded that there is a possible link between untreated ADHD and sexual addiction (Blankenship & Laaser, 2004). This association might indicate that sexual addiction could lead to SD through compulsive behaviour, which has the impact of disrupting healthy intimacy and emotional bonding (Blankenship & Laaser, 2004).

Lastly, another study that aligns with the findings above analyzed a large retrospective sample from electronic medical records to compare stimulant and non-stimulant ADHD medications and their effects on SD in adolescents (Hale et al., 2025). Results showed that in males, stimulant medication use were linked with enhanced libido, hypersexual behaviours, and ED, while non-stimulant medications had fewer sexual side effects (Hale et al., 2025). Among females, stimulant medication use was connected to slightly greater sexual desire, more hypersexual or compulsive behaviours, and higher rates of contraceptive use (Hale et al., 2025). Non-stimulant medications produced fewer side effects, and were also linked with greater

contraceptive use compared to non-medicated participants (Hale et al., 2025). To conclude, most of the articles emphasized the need for further research on the association between ADHD and SD. It seems that current knowledge remains limited regarding the complex connections between ADHD symptomatology, SD, as well as sexual behaviour. Overall, there is increasing recognition of the relationship between ADHD and SD. Nonetheless, research in this area yields somewhat mixed findings and is still limited.

Sexual Dysfunction and Depression

Major depressive disorder (MDD) is characterized by the presence of a major depressive episode, defined as a period of at least two weeks during which an individual experiences either a persistently depressed mood or a significant loss of interest or pleasure in most activities (DSM-5-TR; American Psychiatric Association, 2022). During this period, at least four additional symptoms must be present, such as changes in appetite or weight, sleep disturbances, psychomotor agitation or retardation, fatigue or low energy, excessive guilt or feelings of worthlessness, difficulties with concentration or decision-making, or recurrent thoughts of death or suicide (American Psychiatric Association, 2022). These symptoms must represent a clear change from the individual's usual level of functioning, occur nearly every day for most of the day, and result in clinical distress or impairment in social, occupational, or other important areas of functioning.

The worldwide prevalence of MDD in 2010 was estimated at 4.4%, corresponding to approximately 298 million cases globally (Ferrari et al., 2013). In 2017, the WHO estimated that 322 million people worldwide were living with depression, making it one of the leading causes of ongoing difficulties in daily functioning (Moreno-Agostino et al., 2021). Within Canada, MDD also affects a substantial proportion of the population. The estimated 12-month

prevalence is approximately 4.7%, with higher rates observed among females (5.8%) compared to males (3.6%) (Knoll & MacLennan, 2017). Lifetime prevalence estimates further indicate that 11.2% of individuals in Canada will meet criteria for MDD at some point in their lives, including 14.0% of females and 8.4% of males (Knoll & MacLennan, 2017). In general, the prevalence of depression differs across populations and historical periods, with evidence indicating an increase in rates as each year progresses (Moreno-Agostino et al., 2021).

In addition to its prevalence, depression has been shown to influence multiple aspects of sexual functioning, as demonstrated across a body of empirical research. Frohlich and Meston (2002) documented a relationship between depression and SD in women, with depressive symptoms associated with a range of sexual difficulties. These difficulties include reduced sexual desire, problems with arousal and orgasm, decreased sexual satisfaction and pleasure, sexual aversion, and experiences of sexual pain. Depression has also been shown to negatively affect male sexual functioning (Fabre et al., 2013). Higher rates of SD in men with MDD appeared to primarily involve orgasm-related difficulties and disruptions in sexual drive and relationships, while sexual desire and arousal tended to be relatively less affected (Fabre et al., 2013). Furthermore, evidence suggests a positive association between the severity of depressive symptoms and the severity of SD, such that more severe depression was linked to greater impairment in sexual functioning (Fabre et al., 2013).

To further discuss prevalence of SD in depression, Gonçalves et al. (2023) conducted a systematic review and meta-analysis estimating the prevalence of SD among individuals with MDD and persistent depressive disorder (PDD) who were not receiving pharmacological treatment. The review discussed that SD was highly prevalent among individuals with MDD. Approximately 83% of women and 63% of men with MDD experienced some form of sexual

difficulty. Reduced sexual desire was the most reported concern, affecting about 65% of women and 40% of men. In addition, many individuals with depression reported difficulties related to sexual arousal, orgasm, and sexual satisfaction, indicating that depression could affect multiple aspects of sexual functioning (Gonçalves et al., 2023).

In addition to prevalence, certain research has focused on the direction of the relationship between depression and SD. Atlantis and Sullivan (2012) conducted a systematic review and meta-analysis of prospective cohort studies that examined the bidirectional relationship between depression and SD. The populations studied included adult men and women, mostly middle-aged, from different countries. Similarly, Shiri et al. (2007) conducted a population-based prospective study of Finnish men aged 50 to 70 years to examine the bidirectional relationship between depressive symptoms and erectile dysfunction over a five-year follow-up period. Data were collected using self-reported questionnaires that assessed participants' sociodemographic characteristics, medical conditions and medication use, lifestyle factors, erectile functioning, and concerns related to erectile difficulties. Lastly, a study by Ruan et al. (2025) conducted a large-scale national cross-sectional study in China examining the association between sexual function and depression among reproductive-aged adults aged 20 to 40 years. The study included 10,761 participants (5,259 men and 5,502 women) and self-reported questionnaires to assess sexual functioning, depressive symptoms, and participants' knowledge regarding the effects of SD on fertility in a reproductive-aged population.

All three articles support a bidirectional relationship between depression and SD. Atlantis and Sullivan (2012) found that individuals with depression had a 50% to 70% increased risk of developing SD, while those with SD had a 130% to 210% increased risk of developing depression. Similarly, Shiri et al. (2007) found that men with depressive mood had a higher

prevalence and incidence of ED, and conversely, men with ED were more likely to develop depressive symptoms over time. Lastly, Ruan et al. (2025) identified a bidirectional relationship between sexual function and depression, with poorer sexual function associated with greater depressive symptom severity and higher levels of depression linked to poorer sexual functioning. Findings provide consistent evidence that the relationship between depression and SD is bidirectional across diverse populations, with symptom severity and psychosocial factors potentially influencing the strength of this association.

In sum, SD is a common and clinically relevant feature of MDD, reflecting both depressive symptomatology and treatment effects. Evidence supports a bidirectional relationship between depression and SD. The literature demonstrated that SD is a common and relevant feature of MDD and had been linked to lower sexual desire, arousal, and orgasmic functioning. The literature also indicated that sexual functioning in the context of depression might be influenced by both depressive symptoms and depression treatment. Together, this evidence supports the need for researching depression and its correlation with SD.

Sexual Dysfunction and Anxiety

The anxiety disorders category in the DSM-5 includes, but is not limited to, separation anxiety disorder, specific phobia, social anxiety disorder (social phobia), panic disorder, and generalized anxiety disorder. Anxiety disorders are defined by excessive and persistent fear or anxiety that is disproportionate to the actual threat and associated with avoidance and functional impairment (DSM-5). Although fear reflects an immediate response to perceived danger and anxiety involves anticipation of future threat, these states frequently overlap and vary across disorders in terms of triggers, cognitive content, and behavioral responses. Anxiety disorders are distinguished from normative or transient anxiety by

their persistence, typically lasting six months or longer, and by their clinical severity, developmental course, and impact on functioning (American Psychiatric Association, 2022).

Data from the 2017–2018 Canadian Community Health Survey (CCHS) indicated that 8.9% of Canadians reported having an anxiety disorder, with prevalence rates higher among females (11.6%) than males (6.3%) (Yeretzian et al., 2023). A systematic review by Herder et al. (2023) found that SD was common among individuals with anxiety disorders, with prevalence rates ranging from 33% to 75% across studies. Reported difficulties included reduced sexual desire, orgasmic dysfunction (7%–48%), erectile dysfunction in men (7%–22%), and lower sexual satisfaction, although findings varied by study and by domain of sexual functioning assessed. Similarly, a Danish clinical study of 207 individuals with anxiety disorders found that 53% of women and 18% of men reported symptoms and distress consistent with at least one DSM-5 sexual dysfunction (Strizzi et al., 2025). These rates were substantially higher than those observed in the general population (approximately 3.6% in women and 4.2% in men), and over 90% of the sample reported moderate to severe anxiety, highlighting a strong link between anxiety severity and SD (Strizzi et al., 2025).

Empirical studies had further explored this association, highlighting variability across anxiety subtypes, sexual functioning domains, and study designs. For instance, a cross-sectional study that included 343 adults aged 25–68 years in heterosexual relationships, comprising 198 individuals with SD and 145 controls (McCabe, 2005). The study examined the role of performance anxiety in men and women with SD, alongside relationship factors and general lifestyle variables. In this context, performance anxiety referred to persistent concerns about sexual adequacy, in which attention shifted toward satisfying a partner or “performing well” rather than experiencing pleasure.

These concerns may intensify following perceived failures and interfere with sexual functioning, such as fears of erection loss in men or anxiety about delayed arousal or orgasm in women (McCabe, 2005). Men with SD reported more negative sexual attitudes, greater relationship conflict, and higher performance anxiety, with performance anxiety emerging as the only unique predictor (McCabe, 2005). Women with SD similarly reported more negative sexual attitudes, poorer relationship quality, and higher performance anxiety, while no group differences were found in general stress, fatigue, or communication. While McCabe (2005) examined performance anxiety and relational factors in SD among men and women, Van Minnen and Kampman (2000) focused on sexual functioning in women with diagnosed anxiety disorders and their quality of life. Their study used self-reported measures to assess SD, sexual satisfaction, marital functioning, and psychopathology. Women with panic disorder and obsessive-compulsive disorder (OCD) reported lower sexual desire and less frequent sexual activity than controls, with higher rates of hypoactive sexual desire and sexual aversion disorders (Van Minnen & Kampman, 2000).

Women with OCD also reported greater overall SD and lower sexual satisfaction than both panic disorder patients and controls (Van Minnen & Kampman, 2000). Sexual difficulties in women with anxiety disorders were mainly related to desire, while arousal and orgasm were less affected, and marital relationship quality did not differ across groups, suggesting that sexual problems were more closely linked to anxiety than to relationship factors (Van Minnen & Kampman, 2000). The research indicated that there is a co-occurrence of anxiety and sexual difficulties, especially reduced sexual desire and less frequent sexual activity. These findings show that the link between anxiety and sexual functioning is not straightforward and suggest that

more research is needed, particularly experimental studies involving people with anxiety disorders (Van Minnen & Kampman, 2000).

Using a different methodological approach than Van Minnen and Kampman (2000), Bradford and Meston (2006) examined anxiety and sexual arousal of 38 women in a laboratory setting, focusing on psychophysiological and subjective responses rather than clinical sexual functioning. Measures of state anxiety, trait anxiety, and anxiety sensitivity were collected through questionnaires to examine their relationship with physiological and self-reported sexual arousal in response to erotic stimuli. The results showed a curvilinear relationship between state anxiety and physiological sexual arousal, with moderate anxiety associated with higher arousal than both low and high anxiety (Bradford and Meston, 2006). Trait anxiety and anxiety sensitivity were negatively associated with psychological aspects of sexual arousal but showed no association with physiological arousal, indicating a discrepancy between subjective and physiological sexual responses in women. This finding suggests that anxiety had a complex role in female sexual arousal, whereby moderate state anxiety might enhance physiological arousal, while trait anxiety was associated with reduced subjective sexual arousal, reflecting different underlying mechanisms (Bradford & Meston, 2006).

Extending beyond female arousal, a systematic review conducted by Velurajah et al. (2022) investigated the relationship between anxiety disorders and ED and found that ED was common among men with anxiety disorders, with a median prevalence of 20.0%. Prevalence of the conditions varied widely by diagnosis, ranging from 3.0% to 85.0% in post-traumatic stress disorder and from 2.0% to 36.2% in panic disorder, while rates were 0.0% in social anxiety disorder and 20.0% in OCD (Velurajah et al., 2022). Additionally, Laurent and Simons (2009) study had similar results in terms of the association between SD and various anxiety disorders. It

additionally added that anxiety had mixed effects on sexual arousal, possibly due to cognitive interference or anxiety levels. Overall, the literature indicates that anxiety and SD frequently co-occur, though the nature of this relationship varies depending on the type of anxiety and the type of sexual functioning assessed (Laurent & Simons, 2009). Across clinical, experimental, and population-based studies, anxiety has been linked to impairments in sexual desire, arousal, and functioning, with performance anxiety and anxiety severity emerging as particularly relevant factors (Laurent & Simons, 2009). These findings suggest that the relationship between anxiety and SD is complex, underscoring the need for further research to clarify underlying mechanisms and directional associations (Dunn et al., 1999).

Attention-Deficit/Hyperactivity Disorder and Anxiety

Literature indicates that ADHD is frequently comorbid with anxiety disorders (Van Ameringen et al., 2011). Studies suggested that this comorbidity was highly prevalent, with estimates indicating approximately 47–53% of adults with ADHD meeting criteria for at least one comorbid anxiety disorder (Seddio et al., 2024). Comparable patterns were observed in population-based samples, where 32.4% of adults with persistent ADHD were found to have generalized anxiety disorder, compared to only 9.0% among non-ADHD control groups (Yoshimasu et al., 2018). Consistent with these prevalence estimates, a systematic review by Choi et al. (2022) reported variability in the prevalence of anxiety disorders among individuals with ADHD. In general population samples, the prevalence of any anxiety disorder among individuals with ADHD ranged from 4.3% to 47.1%, compared to 0.5% to 9.5% among non-ADHD comparison groups (Choi et al., 2022). However, in clinical samples, prevalence estimates were higher, with anxiety disorders occurring in 3.9% to 84% of individuals with ADHD, compared to 5.4% to 40% in non-ADHD groups (Choi et al., 2022).

Within student populations, the comorbidity between ADHD and anxiety remains notably elevated. For instance, Anastopoulos et al. (2018) reported that 28.6% of students with ADHD met criteria for an anxiety disorder, compared to 3.6% in non-ADHD comparison groups. Similarly, Nankoo et al. (2019) and Mohamad et al. (2025) found that students reporting ADHD-related symptoms consistently exhibited higher levels of anxiety. Although ADHD was frequently comorbid with multiple psychiatric conditions, several studies indicated that anxiety disorders represented the most prevalent comorbid condition among students with ADHD (Mohamad et al., 2025).

Comorbid anxiety disorders in individuals with ADHD have been associated with impairments across multiple domains of functioning, many researchers study these effects in postsecondary student populations (Prevatt et al., 2015). One study examined 473 college students diagnosed with ADHD and 204 college students without ADHD to find the correlation between the nature and intensity of anxiety symptoms and their relationship to cognitive functioning (Prevatt et al., 2015). Participants with ADHD reported higher levels of anxiety than non-ADHD participants. Another study researched the prevalence of ADHD in college students and its association with comorbid disorders and multivariate disorder classes in relation to role impairment (Mak et al., 2022). The findings indicated that ADHD and comorbid conditions, including anxiety, independently predicted severe levels of impairment among college students. These impairments were evident across multiple domains, including home management, occupational functioning, interpersonal relationships, and social life (Mak et al., 2022).

In line with these findings, in their 2017 study of college students aged 18 to 30 at a southeastern United States-based public university, O’Rourke et al. (2017) found that those with ADHD reported more dysfunctional beliefs about worry, increased obsessive–compulsive

symptoms, and reduced self-efficacy compared to students without ADHD. Additional evidence came from a study of 353 adults diagnosed with ADHD that examined how common anxiety disorders are alongside ADHD and how these comorbidities relate to clinical and demographic factors such as symptom severity, suicidality, aggression, educational level, and overall functioning (Quenneville et al., 2022). The study found that having anxiety disorders comorbid with ADHD was associated with a more severe clinical profile and reduced educational level (Quenneville et al., 2022).

Attention-Deficit/Hyperactivity Disorder and Depression

ADHD is frequently comorbid with depression, with research consistently demonstrating higher rates of depressive symptoms and disorders among individuals with ADHD compared to non-ADHD populations. Binder et al. (2009) conducted a systematic review on the co-occurrence of ADHD and depression and reported considerable variability in prevalence across studies, with rates of MDD among adults with ADHD ranging from 31.0% to 40.7%. Within the same review, Kessler et al. (2006) found that 18.6% of adults with ADHD met criteria for MDD, compared to 7.8% of individuals without ADHD. Consistent with these findings, a systematic review of psychiatric comorbidities in adult ADHD populations reported higher rates of depressive disorders in ADHD groups than in non-ADHD groups, across both general and clinical populations (Choi et al., 2022).

Turning to university-based samples, Anastopoulos et al. (2018) examined psychiatric comorbidity among 443 university students in the United States and found that 32.3% of students with ADHD met criteria for a depressive disorder, compared to 5.4% in a comparison group. Similarly, research in European university samples had shown that depressive symptoms were significantly more prevalent among students with ADHD, with inattention demonstrating the

strongest association and female students reporting higher depression levels (Panevska et al., 2015). Likewise, Nankoo et al. (2019) studied 1,002 Australian university students, and reported that 17.3% exhibited clinically significant ADHD-related symptoms, with higher ADHD symptom levels associated with greater self-reported depressive symptoms.

ADHD has been associated with functional difficulties across multiple life domains, with greater impairment observed when the disorder co-occurs with depression and other psychiatric conditions (Mohamad et al., 2025). A study examined first year undergraduate students aged 18 to 24 and assessed the relationship between ADHD symptoms and academic outcomes (Mohamad et al., 2025). ADHD symptoms, whether occurring alone or alongside depression, anxiety, and risky alcohol use, were associated with academic adjustment but not with academic performance during the first semester. Students with both ADHD and depressive or anxiety symptoms showed greater difficulties in academic adjustment than those with ADHD alone (Mohamad et al., 2025).

Consistent with the pattern observed by Mohamad et al. (2025), Anastopoulos et al. (2018) reported high rates of comorbidity between ADHD and depression among first-year college students, despite not directly assessing functional impairment. Notably, 32.3% of students with ADHD met criteria for a current depressive disorder, compared to 5.4% of students without ADHD, with MDD being particularly prevalent in the ADHD group. Anastopoulos et al.'s (2018) discussion further indicated that the presence of comorbid conditions such as depression placed students with ADHD at increased risk for psychosocial difficulties, which might contribute to educational and social impairments. In addition, higher rates of depressive disorders were observed among female students with ADHD compared to their male counterparts (Anastopoulos et al., 2018).

Another article with similar findings studied the correlation among adult ADHD symptoms, perceived stress, and depressive symptoms within a university student sample (Sahmurova et al., 2022). Using self-reported data, the findings revealed positive associations between ADHD symptoms, stress, and depression, with attention-related symptoms specifically linked to lower perceived self-efficacy. In addition to student-based samples**,** a longitudinal study examined a large adult population of approximately 21,000 individuals with either undiagnosed ADHD or a formal diagnosis (Able et al., 2007). The findings indicated that adults with undiagnosed ADHD experienced substantially greater functional and psychosocial difficulties than non-ADHD controls, including higher prevalence of comorbid mental health conditions such as depression and anxiety.

Functional Impairment, ADHD, Depression and Anxiety

Functional impairment refers to difficulties in carrying out daily activities (De Sa et al., 2023). Research suggests that there is a correlation between functional impairment with ADHD, depression and anxiety. For instance, a community-based study examined functional impairment among 500 adults who self-reported a diagnosis of ADHD and 501 controls without ADHD (Biederman et al., 2006). The researchers hypothesized that adults with ADHD would show impairments across multiple domains of functioning, consistent with findings previously observed in clinical samples (Biederman et al., 2006). Results indicated that adults with ADHD experienced significantly greater functional impairment in education and demonstrated occupational difficulties, as well as greater interpersonal and social difficulties (Biederman et al., 2006). In addition, adults with ADHD had higher rates of risky behaviours compared to controls (Biederman et al., 2006). This study reinforces the idea that

ADHD in adulthood is linked to difficulties across several areas of functioning and can affect their quality of life.

Functional impairment has also been observed in individuals with depression. For example, a study that was conducted by Xiao et al. (2018) examined data from 1,503 outpatients diagnosed with major depression who had undergone 8 to 12 weeks of antidepressant treatment. The researchers compared residual depressive and somatic symptoms, as well as levels of functional impairment, between patients classified as fully remitted and those considered partially remitted, using standardized assessment measures. They proposed that these two groups would differ in terms of residual symptoms, and that such symptoms would be linked to functional impairment across psychosocial domains. The findings indicated that residual symptoms were prevalent even among fully remitted patients and were associated with reduced psychosocial functioning (Xiao et al., 2018). Similarly, a study analyzed data from 3,530 outpatients with major depressive disorder across 10 clinical trials of antidepressant medications (Guico-Pabia et al., 2012). Among several hypotheses, the authors have examined the relationship between functional impairment, emotional well-being, and depression symptom severity in individuals with major depression, with findings indicating that these variables were significantly associated (Guico-Pabia et al., 2012).

Furthermore, there have been studies on functional impairment and anxiety disorders. For instance, Kroenke et al. (2013) analyzed baseline data from 250 primary care patients with chronic musculoskeletal pain to explore how anxiety relates to health-related quality of life (HRQL) and functional impairment. Using validated screening tools, the authors assessed five common anxiety disorders. They examined whether anxiety disorders were common and associated with poorer functioning across multiple domains, independent of depression (Kroenke

et al., 2013). The findings showed that nearly half of the patients screened positive for at least one anxiety disorder, and these were linked to impairments in psychological well-being, pain interference, and work-related functioning. In addition, impairment increased as the number of different anxiety disorders rose.

Comparably, a study by Henning et al. (2007) researched, among several hypotheses, whether individuals with generalized anxiety disorder (GAD) show clinically significant impairment across multiple domains of functioning, and whether comorbidity is associated with greater impairment. The sample included treatment-seeking individuals with GAD and a comorbid disorder, individuals with GAD only, and a non-anxious control group. The findings showed that individuals with GAD reported notable impairment in areas such as work, social functioning, and relationships. However, those with comorbid conditions demonstrated greater impairment only in social functioning, with no significant differences observed in other domains compared to individuals with GAD alone (Henning et al., 2007). Overall, these studies suggest that functional impairment is closely correlated to both depression and anxiety, and tends to reflect how symptoms impact daily life. Across findings, impairment remains evident even when symptoms improve and appears to increase with greater symptom severity or comorbidity. At the same time, this impact is not consistent, as some domains of functioning seem more affected than others.

Current Study

As the literature reviewed above suggests, there is increasing recognition of the relationship between ADHD and SD; nonetheless, research in this area is still limited. The primary focus of the present study is therefore on examining the association between ADHD and SD. This study also examines associations between anxiety and depressive symptoms with SD,

given their co-occurrence with ADHD. Similarly, functional impairment is examined in relation to SD given their associations with ADHD. The hypothesis of the study is that ADHD symptoms and impairment will be positively associated with SD. It is also hypothesized that anxiety and depressive symptoms will also be positively related to SD.

Methods

Research Ethics Board approval was received from both Saint Paul University and the University of Ottawa. Authorization to access the INSPIRE core facility at the University of Ottawa, which includes a student participant pool, was obtained for the purposes of participant recruitment and data collection. Funding in the amount of $220 was awarded through the Graduate Student Support Program at Saint Paul University. This funding was used to provide honouraria to participants recruited outside of the INSPIRE system, with participants receiving a $10 gift card of their choice.

Data was collected using the Qualtrics survey platform, which allowed participants to complete the questionnaires through a secure, web-based interface. Recruitment through the Integrated System of Participation in Research (ISPR) enabled researchers to share study opportunities with students from the University of Ottawa, who were enrolled in participating undergraduate courses. Through this initiative, students were able to take part in research studies in exchange for course credit, while researchers were granted access to a large undergraduate participant pool. Students were able to review the study information through the ISPR database and assess their eligibility. Eligible students who chose to participate were directed to the Qualtrics survey link to complete the study.

Additional recruitment methods included online platforms, printed recruitment posters, and word-of-mouth dissemination, with outreach to relevant social media and community groups

in Ottawa and across Canada. Individuals interested in participating were invited to contact the thesis student by email for further information. Those who expressed interest via email were subsequently provided with a link to the Qualtrics survey to complete their participation. Eligible participants for the study were required to be 19 years of age or older and to be able to read and understand English, as all study questionnaires were administered in English. Eligible participants were adults willing to complete self-report questionnaires assessing ADHD symptoms, sexual functioning, anxiety and depressive symptoms, and functional impairment.

Participants

A total of two hundred and thirty-seven (237) individuals were recruited into the study. Following the application of the inclusion and exclusion criteria to confirm eligibility and consent, forty (40) participants were excluded, resulting in a final sample of one hundred and ninety-seven (197) participants retained for analysis. The final sample consisted of 197 adults between the ages of 19 and 48 years (n = 197), with a mean age of 21 years. One hundred and ninety-seven participants agreed to the consent form. All the participants' user language was English. The biological sex of the sample included 49 males (25%) and 147 females (75%) and one participant who chose not to reply. Identified gender of the participants included 50 men (25%), 143 women (72%), two participants identifying as non-binary (1%), one who referred not to specify, and one who preferred not to answer.

The level of education among participants varied. From 197 participants, 69 indicated being a high school graduate, 73 indicated having obtained partial college/university (minimum 1 year) or special training, 41 indicated being a college or university graduate, two indicated having completed graduate or professional training, and 12 indicated "other" which included undergraduate, nursing and Cegep, "currently in third year

university", "currently in the last year of bachelor", "in nursing second year", "obtaining biology degree" and, "obtaining undergraduate, second term first year university student". Regarding ethnic background, 17 participants identified as Black (e.g., African, Caribbean; 8.7%), 21 participants identified as East Asian (e.g., Chinese, Filipino, Japanese, Korean; 10.7%), 2 participants identified as Indigenous (e.g., First Nations, Métis, Inuit; 1.0%), two participants identified as Latin American (e.g., Mexican, Colombian, Peruvian; 1.0%), 17 participants identified as Middle Eastern (e.g., Egyptian, Iranian, Lebanese; 8.7%), 10 participants identified as South Asian (e.g., East Indian, Pakistani, Sri Lankan; 5.1%), 104 participants identified as White/Caucasian (53.1%), and 14 participants identified as Biracial or Multiracial (7.1%). Six participants indicated that no available option applied to them and self-identified as, "Arab/north Africa", "Berber(Kabyle)", and "south East Asian" (3.1%). Three participants preferred not to specify their ethnic background (1.5%). For the Biracial or Multiracial responses, one participant identified as "Arab", 1 as "Black and Indo-Caribbean", one as "Black and White", one as "Chinese and White", one as "Korean-Canadian", one as "Latin and East Asian", one as "Latino Maghrébine", one as "Lebanese and Russian", one as "Middle Eastern and White", one as "Russian Lebanese", one as "South Asian and White", one as "White and Latin", and one as "White and Black".

When asked about relationship status, 105 participants identified as single, 65 as having a partner but not living together, 16 as living with a partner, six as married, two as divorced, and one preferred not to specify. Additionally, two participants indicated that no available option applied to them, of whom one described their relationship status as "a casual hookup" and one as "seeing someone but not officially dating". A total of 80 participants identified themselves as having ADHD, 108 participants indicated that they do not have ADHD, and 9 participants

reported that none of the provided response options applied and specified, “autism”, “I don’t know”, “I have some symptoms”, amongst other replies. When participants were asked if they were diagnosed with ADHD by a licensed healthcare professional 47 indicated “yes”, 144 indicated “no” and six reported that none of the provided options applied and specified “autism”, “never been checked” and “I am medicated for ADHD by my DR and was said to have ADHD symptoms by a psychiatrist”, amongst other responses.

A total of 110 participants identified English as their primary language, 38 participants identified French as their primary language, and 39 participants identified as bilingual. An additional 10 participants indicated that none of the listed options applied to them and specified another primary language, including “Japanese”, “Korean”, “Mandarin”, “Spanish” and “Turkish”. Participants varied in residency, with 158 participants from Ontario, 38 from Quebec, and one from Turkey.

Measures

Demographics Questionnaire

As part of the study, participants completed a demographics questionnaire designed to collect background information on participants. The questionnaire gathered information on participants’ age, biological sex, gender identity, ethnic background, highest level of education attained, relationship status, country of residence, and primary language. Participants were also asked to report whether they had received a diagnosis of ADHD from a licensed health professional or whether they self-identified as having ADHD.

Female Sexual Function Index

The Female Sexual Function Index (FSFI) was employed to assess female sexual functioning, consisting of 19 items designed to evaluate key domains of sexual function,

including sexual desire, arousal, lubrication, orgasm, satisfaction, and pain (Rosen et al., 2000). The FSFI assesses sexual functioning over the past four weeks, and responses range from 0–5 or 1–5 depending on the question, such that higher scores indicate better sexual functioning. The FSFI yields both domain-specific scores and a total score indexing overall sexual function. Psychometric evaluations of the FSFI have demonstrated strong reliability and validity. Rosen et al. (2000) reported high internal consistency across domains, with Cronbach's alpha coefficients of .82 or higher, as well as strong test–retest reliability, with correlations ranging from .79 to .86. In addition, the FSFI has demonstrated good discriminant validity, effectively differentiating between women with Female Sexual Arousal Disorder and healthy control groups across all domains (Rosen et al., 2000). In the present study, the total FSFI score was used as a continuous indicator of overall sexual functioning. No clinical cutoff score was applied. Cronbach's alpha indicated acceptable internal consistency for the FSFI in this sample, $\alpha = .82$.

International Index of Erectile Function

The International Index of Erectile Function (IIEF; Rosen et al., 1997) was administered to male participants to assess erectile dysfunction and broader aspects of male sexual functioning, consisting of 15 items that evaluate five domains of sexual functioning: erectile function, orgasmic function, sexual desire, intercourse satisfaction, and overall satisfaction (Rosen et al., 1997). Items are designed to capture both physiological and subjective components of sexual functioning in adult populations. The original validation study reported strong internal consistency, with Cronbach's alpha coefficients exceeding .70 across all domains and values above .90 for several domains and for the total score (Rosen et al., 1997). Test–retest reliability was also reported as satisfactory, with correlation coefficients ranging from .64 to .84 across domains, indicating stability of responses over time. Evidence of construct validity has

been demonstrated through the scale's ability to discriminate between men with and without erectile dysfunction, positive associations with clinician-rated assessments of sexual functioning, and weak associations with unrelated constructs such as marital adjustment and social desirability, supporting discriminant validity (Rosen et al., 1997). In the present study, the IIEF total score was used in analyses, while the five subscale scores were not examined separately in the results section. Higher scores reflected better sexual functioning and lower levels of erectile dysfunction. In the present study, the total IIEF score was used as a continuous indicator of overall sexual functioning. No clinical cutoff score was applied. Cronbach's alpha indicated low however, acceptable internal consistency for the IIEF in this sample, $\alpha = .69$.

Weiss Functional Impairment Rating Scale

The Weiss Functional Impairment Rating Scale–Self-Report (WFIRS-S) was employed to assess functional impairment associated with attention-deficit/hyperactivity disorder (Weiss et al., 2018). This self-report questionnaire consists of 69 items designed to evaluate the impact of emotional and behavioral difficulties on daily functioning across multiple life domains, including family, work, school, life skills, self-concept, social relationships, and risk-taking behaviours (Weiss et al., 2018). The WFIRS-S has shown good reliability and validity. Weiss et al. (2018) reported high internal consistency for the total score and moderate internal consistency across individual domains. Test–retest reliability analyses showed moderate to strong correlations across different time intervals, suggesting stability of scores when levels of functional impairment remain unchanged for individuals. In terms of validity, the WFIRS-S demonstrated strong convergent validity through associations with established impairment measures such as the Current Symptom Scale, and moderate correlations with instruments including the Global Assessment of Functioning and the Conners' Adult ADHD Rating Scale (Weiss et al., 2018).

Divergent validity was supported by weak associations with measures of depression, suggesting that the scale primarily assesses functional impairment rather than general mood symptoms. Items are rated on a 4-point scale ranging from 0 (“never or not at all”) to 3 (“very often or very much”), such that higher scores indicate greater levels of functional impairment. The WFIRS-S gave seven domain-specific subscale scores as well as a total score; however, only the total average score was used in the present study as a continuous indicator of overall functional impairment. In this study, internal consistency for the WFIRS-S total average score was acceptable (Cronbach’s $\alpha = .94$), with higher scores reflecting greater functional difficulties.

General Health Questionnaire

The General Health Questionnaire (GHQ-28) is a self-report screening measure designed to assess mental health symptoms (Willmott et al., 2008). It consists of 28 items that evaluate somatic complaints, anxiety and insomnia, social dysfunction, and severe depression (Willmott et al., 2008). In terms of validity, Willmott et al. (2008) validated the GHQ-28 by comparing it to a trusted diagnostic interview, with depression items showing strong specificity and somatic items demonstrating high sensitivity. Through logistic regression, eight items were identified that predicted cases more accurately than the full scale, indicating that the GHQ-28 is a valid tool and that its accuracy improves when emphasis is placed on these key items rather than a single cut-off score (Willmott et al., 2008). For this study, only the anxiety and severe depression subscales were used. For each of these domains, mean scores were calculated to represent overall symptom severity. The GHQ-28 total score demonstrated excellent internal consistency in the current sample, Cronbach’s $\alpha = .92$. The Likert scoring method was applied, with response options coded as 0 (“better than usual” or “not at all”), 1 (“same as usual” or “no more than usual”), 2

("worse than usual" or "rather more than usual"), and 3 ("much worse than usual" or "much more than usual"). Although response labels varied across items, higher scores consistently reflected poorer mental health functioning across all questions.

Adult Self-Report Scale Symptom Checklist

The Adult ADHD Self-Report Scale Symptom Checklist (ASRS-v1.1) was also used as an additional instrument to measure ADHD symptoms, consisting of 18 items that evaluate domains of inattention, hyperactivity, and impulsivity (Adler et al., 2012). This instrument has shown strong internal consistency, with Cronbach's alpha coefficients supporting its reliability in assessing ADHD-related symptoms (Adler et al., 2012). Furthermore, research indicates that it possesses solid construct validity, as well as convergent and predictive validity, confirming its usefulness as a standardized measure (Carlucci et al., 2017). In the present study, items were rated using a 5-point Likert-type scale ranging from 1 ("never"), 2 ("rarely"), 3 ("sometimes"), 4 ("often"), to 5 ("very often"), with higher scores indicating greater symptom severity and functional impairment. An average total score was calculated and used in analyses. Internal consistency for the ASRS-v1.1 in the current sample was acceptable, Cronbach's $\alpha = .93$.

Procedure

Participant recruitment started once all required approvals were granted. Participants were recruited through multiple channels. At Saint Paul University, recruitment occurred through online postings and the distribution of study-related posters. At the University of Ottawa, participants were recruited through the ISPR student pool. Individuals recruited outside of the ISPR system were invited to contact the thesis student directly for additional information. These potential participants were provided with an overview of the study and given the opportunity to ask questions before participating.

For all participants, eligibility was confirmed prior to participation. Before beginning the study, participants were given the link for Qualtrics and asked to review the online consent form and provide informed consent. Participants were informed that their participation was voluntary, that they could withdraw at any time without consequence, and that their responses would remain anonymous. Students accessing the study through ISPR were provided with an online description of the study, including its purpose, eligibility criteria, estimated time commitment, and participation requirements. As with community participants, students recruited through the ISPR portal were also informed that participation was voluntary, that they could withdraw at any time without consequence, and that their responses would remain anonymous. Eligible students were able to access the study by following a link to the online survey.

Following consent, participants completed a series of self-report questionnaires administered through the Qualtrics survey platform. Completion of the questionnaires required approximately 45 minutes to one hour. The measures were presented in the following order for all participants. Demographic questionnaire, FSFI to assess sexual functioning in female participants, International Index of Erectile Function (IIEF) to assess erectile and sexual functioning in male participants, Weiss Functional Impairment Rating Scale–Self Report (WFIRS-S) to assess functional impairment associated with ADHD symptoms, General Health Questionnaire–28 (GHQ-28) to assess anxiety and depressive symptoms, and Adult ADHD Self-Report Scale (ASRS) Symptom Checklist to assess current ADHD symptoms in adults. Upon completion of the questionnaires, participants recruited outside of the ISPR system received a $10 honorarium as compensation for their time. Participants recruited through the ISPR student pool received course credit in accordance with ISPR guidelines. All collected data were prepared for analysis using the Statistical Package for the Social Sciences (SPSS; IBM Corp., 2023).

Results

The current study examines SD in relation to ADHD and comorbid disorders such as anxiety and depression in adults. The final sample consisted of 197 participants, including 50 males and 147 females, who completed self-report measures assessing sexual functioning, ADHD symptoms, anxiety symptoms, depressive symptoms and functional impairment. Analyses were conducted separately for male and female participants. Reliability analyses were first performed for all study measures, followed by analyses to examine assumptions. Correlations between ADHD, anxiety, and depressive symptoms and SD were assessed. Then regression analyses occurred to examine relationships with respect to the main hypotheses.

Data Screening and Assumptions Testing

Data screening and cleaning procedures were conducted using SPSS version 30.0 prior to all primary analyses. The dataset was examined for accuracy, outliers, missing values, and assumptions underlying regression analyses using descriptive statistics, correlational analyses, and visual inspection of scatterplots. Item-level missing data were evaluated within the final analytic sample using a minimum completion criterion of 75% for each questionnaire and corresponding subscales. Missing data were observed primarily on the SD measures, with 32.0% missing data among female participants and 56.0% missing data among male participants. Multiple imputation procedures were employed to examine and ensure that patterns within the data were consistent. Analyses conducted using imputed and non-imputed datasets gave comparable results. Visual inspection of scatterplots indicated no substantial deviations from linearity or homoscedasticity across regression models. They were normally distributed. Additionally, examination of variable distributions, including skewness and kurtosis, indicated no substantial deviations from normality for most study variables.

For the assumptions, a deviation from normality was observed for the GHQ depression subscale in the female sample, which demonstrated positive skewness (skewness = 1.14). In the male sample, deviations from normality were observed for several variables. Scores on the IIEF demonstrated negative skewness (skewness = −1.40) and higher kurtosis (kurtosis = 2.23). The GHQ depression subscale showed positive skewness (skewness = 2.21) and kurtosis (kurtosis = 3.71), while the GHQ anxiety subscale showed higher kurtosis (kurtosis = 1.34) and normal skewness. To address deviation of normality, data transformations were applied where necessary. Depression scores for both samples were square-root transformed, resulting in distributions that were normal. Scores on the IIEF were cubic-transformed and subsequently met normality assumptions. Additionally, the GHQ anxiety subscale was square-root transformed to improve distributional normality. Given the presence of missing data, multiple imputations were conducted in SPSS using five imputations to examine the potential impact of missing data on study findings. Analyses based on imputed and non-imputed datasets were compared to assess the consistency of results.

Descriptive Statistics

Descriptive statistics were calculated for all main study variables among female and male participants. For female participants, sexual function scores as measured by the FSFI were reported by 100 participants and showed a mean of 3.70, *SD* = 0.52. Functional impairment scores were reported by 138 participants, with a mean of 0.72, *SD* = 0.41. Anxiety symptoms were reported by 146 participants, *M* = 1.26, *SD* = 0.68, and depressive symptoms were also reported by 146 participants, with a mean score of *M* = 0.72, *SD* = 0.66. ADHD symptom scores were available for 146 participants and demonstrated a mean of 3.00, *SD* = 0.80. For male participants, sexual function scores as measured by the IIEF were reported by 22 participants and

showed a mean score of 4.19, *SD* = 0.61. Functional impairment scores were reported by 45 participants, *M* = 0.59, *SD* = 0.34. Depressive symptoms were reported by 50 participants, *M* = 0.50, *SD* = 0.73, while anxiety symptoms were also reported by 50 participants, with a mean score of 0.89, *SD* = 0.63. ADHD symptom scores were available for 50 participants and demonstrated a mean score of 2.58, *SD* = 0.78. Sample sizes varied across measures due to incomplete questionnaire responses.

Bivariate Correlations

Female Participants

Bivariate correlation analyses were conducted to examine associations among sexual function, ADHD symptoms, anxiety symptoms, depressive symptoms, and functional impairment among female participants. Sexual function was not significantly associated with depressive symptoms, $r = -.11$, $p = .30$, or ADHD symptoms, $r = -.13$, $p = .19$. A small but statistically significant negative correlation was observed between sexual function and anxiety symptoms, $r = -.21$, $p = .04$, indicating that higher levels of anxiety were associated with lower sexual function. A moderate negative correlation was also observed between sexual function and functional impairment, $r = -.35$, $p < .001$, such that greater functional impairment was associated with lower sexual function. Additionally, depressive symptoms were significantly and positively correlated with anxiety symptoms, $r = .54$, $p < .001$, functional impairment, $r = .47$, $p < .001$, and ADHD symptoms, $r = .25$, $p = .01$. Anxiety symptoms were also significantly and positively correlated with functional impairment, $r = .44$, $p < .001$, and ADHD symptoms, $r = .45$, $p < .001$. ADHD symptoms demonstrated a strong positive association with functional impairment, $r = .49$, $p < .001$. Overall, moderate to strong positive correlations were observed among ADHD symptoms, anxiety symptoms, depressive symptoms, and functional impairments.

Male Participants

Bivariate correlation analyses were conducted to examine associations along sexual function, ADHD symptoms, anxiety symptoms, depressive symptoms, and functional impairment among male participants. Sexual function was significantly and negatively correlated with functional impairment, $r = -.59$, $p = .005$, indicating that greater functional impairment was associated with lower sexual functioning. Sexual function was not significantly correlated with depressive symptoms, $r = -.13$, $p = .58$, anxiety symptoms, $r = -.24$, $p = .29$, or ADHD symptoms, $r = -.15$, $p = .50$. Functional impairment demonstrated significant positive correlations with depressive symptoms, $r = .49$, $p = .03$, anxiety symptoms, $r = .61$, $p = .003$, and ADHD symptoms, $r = .58$, $p = .01$. Depressive symptoms were significantly and positively correlated with anxiety symptoms, $r = .49$, $p = .02$, but were not significantly associated with ADHD symptoms, $r = .13$, $p = .57$. Anxiety symptoms were also significantly and positively correlated with ADHD symptoms, $r = .43$, $p = .05$.

Regression Analyses

A series of linear regression analyses were conducted to examine whether anxiety, ADHD, and depressive symptoms significantly predicted sexual functioning in adults. Separate regression models were run for male and female participants. Regression analyses were rerun using transformed variables for those measures that initially exhibited non-normal skewness and kurtosis. The pattern of results remained consistent across both datasets. Additional analyses were conducted excluding participants with missing data to assess the robustness of findings. The pattern of results remained unchanged.

Female Participants

Among female participants, ADHD symptoms were not a significant predictor of sexual function, $\beta = -.13$, $p = .19$. However, higher levels of anxiety were associated with lower sexual function, $\beta = -.21$, $p = .04$. Depressive symptoms were not a significant predictor of sexual function, $\beta = -.11$, $p = .30$. In contrast, greater functional impairment was associated with lower sexual function, $\beta = -.35$, $p < .001$.

Male Participants

Among male participants, ADHD symptoms were not a significant predictor of sexual function, $\beta = -.15$, $p = .50$. Similarly, anxiety symptoms were not a significant predictor of sexual function, $\beta = -.24$, $p = .29$. As well, depressive symptoms were not a significant predictor of sexual function, $\beta = -.13$, $p = .58$. However, greater functional impairment was associated with lower sexual function, $\beta = -.59$, $p = .01$.

Discussion

Non-Significant Relation Between Attention-Deficit/Hyperactivity Disorder and Sexual Dysfunction

The present findings did not support the hypothesized association between ADHD symptom severity and SD. In both males and females, ADHD symptoms were not significantly associated with sexual functioning. These results suggest that within this sample, ADHD symptom severity alone does not appear to account for variability in SD outcomes. The absence of a significant association in the present study aligns with the mixed findings reported in the existing literature. Several studies report high rates of SD among adults with ADHD, as well as impairments across multiple domains of sexual functioning (Bijlenga et al., 2018; Soldati et al., 2020). However, a smaller body of literature identifies minimal or domain-specific differences

between individuals with and without ADHD. For instance, Hertz et al. (2022) found no significantly higher rates of several SD outcomes among adults with ADHD relative to adults without ADHD. The similarity between the present findings and those reported by Hertz et al. (2022) suggests that ADHD symptoms may not be independently associated with SD when sexual functioning is examined as a distinct domain rather than within more general behavioural measures of sexual functioning. These findings contribute to a small body of literature suggesting that the relationship between ADHD and sexual functioning may be more nuanced than the wider literature implies.

Additionally, the present study differs from prior work reporting a significant association between ADHD and SD in several ways. Some studies have drawn on considerably more comprehensive assessment questionnaires and had samples of clinically-diagnosed individuals with ADHD (e.g., Amani Jabalkandi et al., 2020). This research also required participants to be off their medication during study participation, which helped to reduce the likelihood that pharmacological treatment would confound sexual functioning outcomes (Amani Jabalkandi et al., 2020). Many studies regarding SD and ADHD have been recruited from clinical settings, often to ensure greater diagnostic certainty or to focus on treatment-seeking populations (Amani Jabalkandi et al., 2020; Bijlenga et al., 2018). The present study took a different approach, drawing primarily from a university sample, with a smaller proportion of the sample from the wider community. Since the present study relied on a non-clinical sample, participants likely represented a wide range of ADHD symptom severity and levels of functioning. This broader range may have reduced the likelihood of detecting a strong association between ADHD symptoms and SD. However, the use of a university-based sample also contributes to the literature, as it allows for the examination of these variables in a population that is not clinically

diagnosed or treatment-seeking. Research conducted outside of clinical settings remains important, as it helps determine whether findings observed in clinical samples are also present in community populations.

Functional Impairment in Relation to Sexual Dysfunction

Functional impairment was significantly associated with sexual functioning across both sex-specific analyses. Among female participants, greater functional impairment was significantly associated with lower sexual functioning. Among male participants, functional impairment also demonstrated a statistically significant negative association with sexual functioning. Impairment was moderately to strongly correlated with the primary ADHD symptom measures in both samples. In females, functional impairment was correlated positively with anxiety symptoms, depressive symptoms, and ADHD symptoms. A similar pattern was present among males, where functional impairment was correlated with anxiety, depressive symptoms, and ADHD symptoms. Although functional impairment significantly predicted SD in this sample, the overall mean level of impairment in the sample was fairly low, $M = 0.71$, $SD = 0.40$. This finding indicates that while impairment varied within the sample and was associated with sexual functioning, the group as a whole did not demonstrate elevated levels of impairment. In other words, relative differences in impairment within this generally high-functioning group were sufficient to predict SD.

One possible explanation for this pattern relates to the overall level of functioning within the present sample. The impairment scores suggest that the sample was largely high functioning. This interpretation makes sense given that the sample is composed primarily of university students rather than individuals experiencing clinically significant disruption in daily life. Although many participants reported ADHD symptoms, the low mean level of impairment

indicates that these symptoms may not have been severe enough to substantially interfere with academic, occupational, or relational functioning. In such cases, ADHD symptoms alone may not be sufficient to predict SD. Instead, it appears that the degree to which symptoms interfere with daily functioning is more relevant to sexual outcomes. This interpretation is consistent with the finding that impairment predicted SD, whereas ADHD symptom severity did not. These findings suggest that ADHD symptoms, in the absence of significant impairment, are not independently associated with SD within a non-clinical sample.

An additional factor that may help explain the relatively low levels of impairment observed in the present sample is resilience. Existing research in student and adult populations has consistently demonstrated that higher levels of psychological resilience are associated with lower levels of depression, anxiety, and stress (Yang et al., 2024; Macía et al., 2021). Resilience has also been linked to adaptive coping strategies, which in turn are associated with better mental health outcomes. Although resilience and coping were not assessed in the present study, it is possible that these factors contributed to the relatively high level of functioning observed among participants despite their endorsement of ADHD symptoms. In a university-based sample, individuals may experience attentional difficulties while simultaneously maintaining academic and social functioning through effective coping strategies. This coping may partially explain why ADHD symptoms were correlated with impairment, yet did not independently predict SD. From a clinical perspective, this distinction is important. Individuals may report ADHD symptoms without experiencing substantial impairment. The present findings suggest that assessment of functional impairment may be particularly relevant when evaluating sexual concerns, as impairment appears to have greater predictive value than symptom endorsement alone.

Cultural Context

Cultural context may also help explain the findings of the present study. Much of the existing research examining the relationship between ADHD and SD has been conducted outside of Canada. Cultural norms surrounding sexuality, mental health, and help-seeking behaviours can differ across countries, which may influence how individuals interpret and report both ADHD symptoms and sexual concerns (Moreira Jr. et al., 2005). Understandings of sexual health are shaped by social values, education, access to healthcare, and public discourse (Moreira Jr. et al., 2005). As a result, participants in a particular context may conceptualize sexual functioning and sexual difficulties differently than individuals in other cultural settings. The present study is among the few conducted within Canada, thereby contributing data from a context that has been relatively underrepresented in this area of research. Even in the absence of a significant association between ADHD symptoms and SD, these findings remain informative. They provide insight into how these variables relate within a Canadian, largely university-based population, and offer a broader perspective on whether patterns identified in clinical or international samples are consistently observed in other settings. In this respect, the study extends the existing literature by examining these associations within a different context.

Depression and Sexual Dysfunction

The present analyses did not demonstrate a significant association between depressive symptom severity and SD in either males or females. This finding contrasts with a substantial body of research documenting elevated rates of SD among individuals with MDD (Atlantis & Sullivan, 2012; Gonçalves et al., 2023). The literature above mentions that in clinical samples, depression has been consistently associated with impairments in desire, arousal, and orgasm, often linked to anhedonia, reduced motivation, and diminished energy. One possible explanation for the results of this study lies in the nature of the present sample and measurement approach. In

this study, depressive symptoms were assessed dimensionally within a primarily university-based population, which is higher functioning compared to a clinically diagnosed sample. Although symptom variability was present, the distribution likely reflects a continuum that includes many subclinical experiences.

Associations between depression and SD may be more pronounced when depressive symptoms reach diagnostic thresholds characterized by sustained anhedonia and marked functional impairment (Atlantis & Sullivan, 2012; Gonçalves et al., 2023). In contrast, milder or fluctuating depressive symptoms may not independently correspond to measurable dysfunction across multiple sexual domains. Additionally, prior research has emphasized the contribution of antidepressant medication to SD (Clayton et al., 2002; Winter et al., 2022). Medication use was not assessed in the present study, and it is therefore unclear whether participants experiencing depressive symptoms were receiving treatments that may influence sexual outcomes. Overall, the present findings suggest that depressive symptom variation within a non-clinical adult sample of mostly university students did not independently predict SD. Symptom severity, diagnosis, and treatment status may possibly contribute to an association between depression and SD.

Anxiety and Sexual Dysfunction

Unlike ADHD and depressive symptoms, anxiety symptoms emerged as a significant predictor of sexual functioning among female participants. In the female regression model, anxiety demonstrated a small but statistically significant negative association with sexual function, indicating that higher anxiety symptom severity was associated with lower sexual functioning scores. However, the magnitude of the association falls within the small effect size range, indicating that anxiety explains only a limited proportion of variance in sexual functioning. In contrast, anxiety was not a statistically significant predictor of sexual functioning

among male participants. Although the direction and magnitude of the association were comparable to those observed in women, the small analytic sample of males substantially limits statistical power to detect small-to-moderate effects. Accordingly, the absence of statistical significance should be interpreted cautiously and considered inconclusive within the constraints of the dataset rather than definitive evidence of no association.

Clinical studies have consistently documented elevated rates of SD among individuals with anxiety disorders (Herder et al., 2023; Strizzi et al., 2025; Laurent & Simons, 2009). Mechanistically, anxiety has been theorized to interfere with sexual functioning through cognitive interference, heightened self-monitoring, and increased autonomic arousal (McCabe, 2005; Van Minnen & Kampman, 2000). The finding for the female dataset in this study is consistent with these models. However, it is important to note that the current study assessed anxiety within a mostly university-based sample, rather than among individuals meeting diagnostic criteria for anxiety disorders specifically. Subclinical anxiety symptoms, as captured here, may exert weaker effects on sexual functioning.

Limitations and Future Directions

Data were collected at a single point in time using self-report questionnaires, and cannot examine changes in ADHD symptoms or SD over time, nor determine if these variables may influence one another across time. Conducting a longitudinal study would more precisely determine temporality and causality among variables. As well, a large proportion of participants were recruited through university platforms, with more limited recruitment from the community, which may not reflect the broader population of adults with ADHD. Although recruitment also occurred beyond university settings in this study, community representation remained limited. Broader recruitment strategies would allow for stronger representation of adults with ADHD and

enable comparison between student and non-student populations. An additional limitation concerns the use of self-report measures. Self-report questionnaires depend on participants' insight, interpretation of items, emotional states, and willingness to disclose sensitive information, all of which may vary across individuals. Study findings therefore reflect participants' perceptions of symptoms rather than clinically confirmed disorders. Future studies should examine research questions with clinical assessments and a clinical sample.

In addition, the absence of physiological assessments or partner reports limits the range of perspectives represented in the data. Incorporating multiple methods in future research would allow for a more comprehensive evaluation. The time frame used in the sexual functioning questionnaires may also have constrained measurement sensitivity. Symptom assessment was limited to the preceding four weeks, which may not adequately reflect longer-term patterns of sexual functioning. Furthermore, given the scope of this study, other contextual and relational variables that may also meaningfully influence sexual functioning were not examined. Future studies should measure other factors such as relationship satisfaction, physical health conditions, medication use, and hormonal fluctuations. Finally, variability in cultural background, socioeconomic status, and life experience was not extensively explored. These factors may shape both mental health experiences and sexual well-being, thereby limiting the generalizability of the findings to more diverse populations. Moreover, analyses were conducted for males and females based on self-identified biological sex, and the limited sample did not allow for meaningful statistical comparisons among individuals such as those who identify as non-binary or transgender.

Conclusion

This study found that in a non-clinical sample composed of mostly university students, both ADHD symptoms and depressive symptoms were not associated with SD in both males and females. Anxiety demonstrated a significant association with sexual functioning in the female sample. Functional impairment was also related to SD. From a research perspective, the finding that ADHD symptoms by themselves are not associated with SD adds further nuance to the existing empirical literature, underlining the importance of considering and measuring impairment in addition to ADHD symptoms. From a therapeutic perspective, the present findings suggest that sexual difficulties among a non-clinical sample may be associated with anxiety symptoms and day-to-day functional impairment rather than with ADHD symptom severity. Instead of ADHD symptoms being emphasized as a contributor to sexual concerns among university students, therapists may benefit from exploring the influence of anxiety-related processes and broader disruptions in daily functioning, including academic stress, relational strain, and difficulties in role management. Overall, these findings provide important insights for future research and clinical services for ADHD, mental health, and sexual dysfunction.

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Appendix

Table 1

Demographic characteristics of participants

Characteristic	*n*	Range or %
Sex		
Female	147	74.6
Male	49	24.9
Prefer not to disclose	4	1
No response	1	<1
Gender		
Woman	143	72.6
Man	50	25.4
Non-binary or third gender	2	1
Prefer not to disclose	1	<1
Other (any pronouns)	0	0
No response	1	<1
Clinical ADHD Diagnosis		
Yes	47	
No	144	
You do not have an option for me	6	
Self-Identification of ADHD		
Yes	80	
You don’t have an option for me	9	
No	108	

Note. ADHD = Attention-Deficit/Hyperactivity Disorder.
Percentages may not total 100 due to rounding.

Table 2

Correlations between female sexual dysfunction and other variables

Variable	1.	2.	3.	4.	5.
1. FSFI	-	-.11	-.35**	-.21*	-.13
2. DEPRESSION	-.11	-	.41**	.50**	.21**
3. WFIRS	-.35**	.41**	-	.50**	.56**
4. ANXIETY	-.21*	.50**	.50**	-	.49**
5. ADHD	-.13	.21**	.56**	.49**	-

Note. FSFI = Female Sexual Function. WFIRS = Weiss Functional Impairment Rating Scale-Self Report. ADHD= Attention-Deficit/Hyperactivity Disorder. ***p* < .01. **p*< .05.

Table 3

Regression coefficient of ADHD on female sexual dysfunction

Variable	B	β	SE
Constant	3.99		.23
ADHD	-.09	-.13	.07
R^2	.02		

Note. ADHD= ADHD= Attention-Deficit/Hyperactivity Disorder.

Table 4

Regression coefficients of anxiety on female sexual dysfunction

Variable	B	β	SE
Constant	3.93		.12
Anxiety	-.17	-.21	.08
R^2	.04		

Table 5

Regression coefficients of depression on female sexual dysfunction

Variable	B	β	SE
Constant	3.75		.08
Depression	-.08	-.12	.08
R^2	.01		

Table 6

Regression coefficients of impairment on female sexual dysfunction

Variable	B	β	SE
Constant	4.02		.11
Impairment	-.44	-.35	.12
R^2	.12		

Table 7

Correlations between male sexual dysfunction and other variables

Variable	1.	2.	3.	4.	5.
1. IIEF	-	-.13	-.59**	-.24	-.15
2. DEPRESSION	-.13	-	.60**	.66**	.29*
3. WFIRS	-.59**	.60**	-	.72**	.59**
4. ANXIETY	-.24	.66**	.72**	-	.49**
5. ADHD	-.15	.29*	.59**	.49**	-

Note. IIEF = International Index of Erectile Function. WFIRS = Weiss Functional Impairment Rating Scale-Self Report. ADHD= Attention-Deficit/Hyperactivity Disorder. *n* ranges from 21 to 22. ***p* < .01. *p< .05.

Table 8

Regression coefficients of ADHD on male sexual dysfunction

Variable	B	β	SE
Constant	.48		.45
ADHD	-.12	-.15	.16
R^2	.02		

Note. ADHD= ADHD= Attention-Deficit/Hyperactivity Disorder.

Table 9

Regression coefficients of anxiety on male sexual dysfunction

Variable	B	β	SE
Constant	4.41		.24
Anxiety	-.24	-.24	.22
R^2	.06		

Table 10

Regression coefficients of depression on male sexual dysfunction

Variable	B	β	SE
Constant	4.25		.18
Depression	-.13	-.13	.23
R^2	.02		

Table 11

Regression coefficients of impairment on male sexual dysfunction

Variable	B	β	SE
Constant	4.84		.20
Impairment	-.93	-.59	.29
R^2	.35		

Table 12

Means and standard deviations of variables for female sample

Variables	*n*	*M*	*SD*
FSFI	100	3.70	.52
DEPRESSION	146	.72	.66
WFIRS	138	.72	.41
ANXIETY	146	1.26	.68
ADHD	146	3.00	.80

Note. FSFI = Female Sexual Function. WFIRS = Weiss Functional Impairment Rating Scale-Self Report. ADHD= Attention-Deficit/Hyperactivity Disorder.

Table 13

Means and standard deviations of variables for male sample

Variables	*n*	*M*	*SD*
IIEF	22	4.19	.61
DEPRESSION	50	.50	.73
WFIRS	45	.59	.34
ANXIETY	50	.89	.63
ADHD	50	2.58	.78

Note. IIEF = International Index of Erectile Function. WFIRS = Weiss Functional Impairment Rating Scale-Self Report. ADHD= Attention-Deficit/Hyperactivity Disorder.