

SKWARA, Julia, WĘGRZYN, Konstancja, WASILEWSKI, Marcin, NOWICKI, Maciej, LASKOWSKI, Gustaw, GÓRA, Agnieszka, BARAŃSKI, Dawid, SALIŃSKA, Anna, WĘGRZYN, Piotr and DĄBROWSKA, Natalia. Attention Deficit Hyperactivity Disorder and Sexual Functioning - is there a connection? Quality in Sport. 2024;27:55095 eISSN 2450-3118.

<https://dx.doi.org/10.12775/QS.2024.27.55095>

<https://apcz.umk.pl/QS/article/view/55095>

The journal has had 20 points in Ministry of Higher Education and Science of Poland parametric evaluation. Annex to the announcement of the Minister of Higher Education and Science of 05.01.2024. No. 32553.

Has a Journal's Unique Identifier: 201398. Scientific disciplines assigned: Economics and finance (Field of social sciences); Management and Quality Sciences (Field of social sciences).

Punkty Ministerialne z 2019 - aktualny rok 20 punktów. Załącznik do komunikatu Ministra Szkolnictwa Wyższego i Nauki z dnia 05.01.2024 r. Lp. 32553. Posiada Unikatowy Identyfikator Czasopisma: 201398.

Przypisane dyscypliny naukowe: Ekonomia i finanse (Dziedzina nauk społecznych); Nauki o zarządzaniu i jakości (Dziedzina nauk społecznych).

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The authors declare that there is no conflict of interests regarding the publication of this paper.

Received: 11.09.2024. Revised: 29.09.2024. Accepted: 16.10.2024. Published: 22.10.2024.

Attention Deficit Hyperactivity Disorder and Sexual Functioning- is there a connection?

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Abstract

Understanding how ADHD affects sexual functioning is key to providing comprehensive care. This review looks into the current research on sexual health in people with ADHD, focusing on how common sexual dysfunction is, how ADHD symptoms might impact sexual behavior, and what role medications play. By summarizing the existing studies, this review aims to highlight what we don't know yet and suggest future research to improve treatment and patient outcomes. The review covers literature related to sexual functioning in ADHD, particularly looking at connections to hypersexuality, paraphilias, and various sexual behaviors. A thorough search of electronic databases, including PubMed, PsycINFO, and Google Scholar, was conducted using relevant keywords such as 'ADHD,' 'hypersexuality,' 'paraphilias,' 'sexuality,' 'sexual behavior,' and 'sexual violence.' The study duration was 6 months. Common features of ADHD, such as impulsivity, poor impulse control, and difficulties with self-regulation, may contribute to risky sexual behaviors, compulsive sexual behavior, or the development of paraphilic interests. It's important for doctors dealing with ADHD in children to discuss sexual health as the patient nears adolescence and offer guidance on safe sex. Treatment should combine medication with therapy. Since impulsivity seems to play a big role in risky sexual behavior, making contraceptives readily available could be important for sexual health. Longitudinal studies are necessary to better understand the temporal relationships

and progression of sexual behaviors and ADHD symptoms over time. Given the potential impact of ADHD on sexual behavior and functioning, healthcare providers should consider screening for ADHD in patients presenting with issues related to hypersexuality, paraphilias, or other sexual concerns.

Keywords: ADHD; attention deficit hyperactivity disorder; athletes with ADHD; hyperkinetic syndrome; sexuality; sexual dysfunction

Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental condition marked by ongoing patterns of inattention, hyperactivity, and impulsivity, which can hinder functioning or development (Table 1). It commonly begins in childhood but can persist into adulthood in about 60% of cases (Polanczyk et al., 2007). Based on recent meta-analyses, ADHD is observed globally and impacts approximately 5.3% of children and 2.5% of adults (Polanczyk et al., 2007; Bóthe et al., 2019; Niazof et al., 2019; Bob et al., 2021). The impact of ADHD extends beyond the commonly recognized academic and occupational challenges, influencing various aspects of daily life, including sexual functioning.

Sexual functioning encompasses a range of physiological and psychological processes, including sexual desire, arousal, and performance. It is an integral component of overall health and well-being. For individuals with ADHD, the core symptoms of the disorder can have significant implications for sexual health. Inattention might lead to difficulties in sustaining sexual interest and focus, while impulsivity can result in risky sexual behaviors or challenges in establishing and maintaining intimate relationships (Soldati et al., 2020).

Moreover, the comorbidity of ADHD with other psychological disorders such as anxiety and depression can further complicate sexual functioning. Studies have shown that individuals with ADHD are more likely to experience higher levels of sexual dissatisfaction, increased rates of sexual dysfunction, and issues related to sexual risk-taking behaviors (Flory et al., 2006). These challenges are not only a direct consequence of ADHD symptoms but are also influenced

by the side effects of common ADHD medications, such as stimulants and non-stimulants, which can affect libido and sexual performance (Wilens & Spencer, 2010).

Understanding the intersection between ADHD and sexual functioning is crucial for providing comprehensive care to patients. This review aims to explore the existing literature on the sexual health of individuals with ADHD, examining the prevalence of sexual dysfunction, the impact of ADHD symptoms on sexual behavior, and the effects of pharmacological treatments. By synthesizing current research, we hope to identify gaps in knowledge and propose directions for future studies that can enhance clinical practice and patient outcomes.

Table 1 Key Characteristics of ADHD

Characteristic	Description
Inattention	Difficulty sustaining focus, careless mistakes, easily distracted
Hyperactivity	Excessive movement, difficulty staying seated, fidgeting
Impulsivity	Hasty actions without thinking, interrupting others
Emotional Dysregulation	Difficulty managing emotions, quick mood changes
Executive Function Deficits	Problems with organizing tasks, managing time, and planning

Methodology

This article aims to explore the current literature on sexual functioning in patients with ADHD, with a focus on understanding associations with hypersexuality, paraphilias, and various aspects of sexuality and sexual behavior. A comprehensive search of electronic databases, including PubMed, PsycINFO, and Google Scholar, was conducted using relevant keywords such as 'ADHD,' 'hypersexuality,' 'paraphilias,' 'sexuality,' 'sexual behavior,' and 'sexual violence.' Articles published up to April 2024 were considered for inclusion. Inclusion criteria encompassed studies that examined sexual functioning, hypersexuality, paraphilias, sexual behavior, or sexual violence in individuals diagnosed with ADHD. Both quantitative and qualitative studies, including observational studies, surveys, clinical trials, and case studies, were eligible for inclusion. Additionally, reviews and meta-analyses providing relevant insights

into the topic were considered. To ensure the comprehensiveness of the review, references cited in relevant articles were also screened for additional sources. Articles were screened based on titles and abstracts, followed by full-text review for eligibility. Data extraction included information on study design, participant characteristics, measures or assessments used, main findings related to sexual functioning, and any associations with ADHD.

Results

1. Growth and maturation

Adolescents diagnosed with ADHD had a higher number of sexual partners compared to those without ADHD. Among girls with ADHD, romantic relationships tended to be shorter compared to girls without ADHD, while boys with ADHD reported initiating sexual intercourse at an earlier age compared to boys without ADHD (Rokeach & Wiener, 2018; Margherio et al., 2021). It was suggested that girls exhibiting the childhood presentation of ADHD may be inclined to engage in oral sexual activity at an early age, around 14 years old, and may report a higher number of male oral sex partners compared to typically developing girls (Halkett & Hinshaw, 2021). Most research indicates that initiating sexual intercourse before the age of 16 is linked to subsequent health risks, such as substance use, depression, sexually transmitted infections, and unintended pregnancy (Flory et al., 2006; Heywood et al., 2015; Vasilenko et al., 2016; Hechtman et al., 2016). Young et al. reported that individuals with ADHD initiate sexual relations and/or intercourse at a notably younger age compared to neurotypical individuals (Young & Cocallis, 2023). There is a suggestion that ADHD medications might offer a protective effect against both early pregnancy (Hua et al., 2021) and sexually transmitted infections (STIs). However, there is limited research exploring the impact of these medications on these psychosexual outcomes (Young & Cocallis, 2023). Many studies suggest a connection between childhood sexual abuse (CSA) and ADHD, yet it is evident that high-quality, controlled, longitudinal evidence supporting this link is scarce at best (Langevin et al., 2023). Halkett et al. in the prospective study suggested that a childhood diagnosis of ADHD was significantly linked to future involvement in sex work (Halkett et al., 2022). However, it is important to note that an early diagnosis of ADHD does not necessarily predict adverse outcomes for women. Instead, it represents an additional factor that should be monitored

alongside other childhood and adolescent variables (Halkett et al., 2022), such as childhood sexual abuse, which also increase the risk of engaging in sex work (Puri et al., 2017).

2. Sexual risk behavior

In one study, in contrast to the non-ADHD students, college students with ADHD indicated having more sexual partners in the past year, lower rates of condom usage, and higher instances of engaging in unprotected sex while drinking. Additionally, they reported higher incidences of sexually transmitted diseases, unplanned pregnancies, and use of emergency contraception. The association between ADHD and sexual health was influenced by alcohol consumption, binge drinking, and cannabis use (Rohacek et al., 2022). Individuals with ADHD were more inclined to forgo using condoms if there was a delay in obtaining them, indicating that students with ADHD may struggle with inhibiting their impulses and, consequently, delaying gratification (Berry et al., 2021). Medicated individuals with ADHD who experience heightened symptoms of anxiety are more prone to engaging in risky sexual behavior, whereas unmedicated individuals with more pronounced symptoms of depression are less likely to engage in such behavior. These findings suggest that prescription medication may potentially have protective effects; however, further exploration is needed to understand these relationships in the context of sexual behavior (Weyandt et al., 2023).

3. Sexual dysfunctions- hypersexuality, paraphilias, problematic pornography use

Hypersexuality has been redefined as compulsive sexual behavior disorder (CSBD) for inclusion in ICD-11. Compulsive sexual behaviour disorder is defined by an ongoing struggle to manage intense, recurring sexual impulses or urges, leading to repetitive sexual behaviors. Symptoms involve these behaviors becoming a central focus of life, causing significant distress or impairment. In ICD-11, hypersexuality is seen as an impulse control issue, primarily characterized by an inability to regulate sexual desire (Böthe et al., 2019). In theory, stimulants used as ADHD medication could potentially increase sexual drive and desire, which might exacerbate symptoms of hypersexuality in individuals with this condition (Böthe et al., 2019).

Soldati et al. reported that there was not conclusive evidence indicating that hypersexuality and paraphilic disorders are more prevalent in individuals with ADHD. This implies that the heightened desire linked to ADHD might be addressed without being considered pathological (Soldati et al., 2021). On the other hand, other studies stated that ADHD occurs more commonly in populations exhibiting hypersexuality or paraphilic disorders

compared to the general population (Böthe et al., 2019; Korchia et al., 2022). Therefore, systematic screening for ADHD in these groups is advisable (Korchia et al., 2022). Another study reported that ADHD symptoms may exert a greater influence on problematic pornography use (PPU) in men rather than women (Böthe et al., 2019). Further studies are needed to determine the significance of these findings. In one study, men with ADHD reported similar frequencies of erectile dysfunction during masturbation or sexual intercourse, as well as issues with delayed or early ejaculation, compared to men without ADHD. It also reported similar levels of satisfaction with their orgasms. Similarly, women with or without ADHD did not show differences in the frequency of low orgasm satisfaction, sexual pain, or absence of orgasm (Hertz et al., 2022). Jabalkandi et al. reported that adults with ADHD of both sexes reported less satisfaction concerning their sexual life compared to the individuals without ADHD (Amani Jabalkandi et al., 2020).

4. Sexual violence

Individuals with ADHD face a substantially heightened risk of involvement in violent incidents. This association was statistically significant across all four outcomes analyzed: individuals with ADHD were at greater risk of perpetrating sexual violence (SV) or intimate partner violence (IPV), and notably, were also at increased risk of being victims of sexual violence or intimate partner violence (Arrondo et al., 2023). There is evidence suggesting that ADHD heightens the likelihood of engaging in criminal behavior and various types of rule infractions, along with significant challenges in interpersonal relationships (Privara & Bob, 2023). Furthermore, individuals with ADHD are reported to be victims of sexual violence more frequently (Wymbs et al., 2017; Ohlsson Gotby et al., 2018; Snyder, 2015). Studies suggest that individuals with ADHD are inclined to form relationships with deviant peers, including those who use substances and may exhibit violent tendencies. This could inadvertently heighten their exposure to perpetrators (Wymbs & Gidycz, 2021). When addressing emerging adults with ADHD, it could be beneficial to emphasize the traits of potential perpetrators to help prevent future incidents of sexual assault victimization (Wymbs & Gidycz, 2021).

Table 2: Impact of ADHD Medication on Psychosexual Outcomes

Psychosexual Outcome	Effect of Medication	Reference
Early pregnancies	Potentially reduced risk	Young & Cocallis (2023)
STIs	Potentially reduced risk	Hua et al. (2021)
Anxiety and risky sexual behavior	Reduced anxiety may decrease risky behavior	Weyandt et al. (2023)

Discussion

ADHD is often linked with impulsivity and poor self-control, which might lead to risky sexual behaviors, compulsive sexual habits, or unusual sexual interests. But not everyone with ADHD will have these issues, and experiences can vary a lot from person to person. This review shows that ADHD can affect sexual behavior and functioning, but there are some limitations to consider. For one, many studies rely on self-reports, which can be influenced by memory or social pressure, making the data less reliable. Also, most research is cross-sectional, meaning we can't easily determine cause-and-effect relationships between ADHD and sexual outcomes. Because of these issues, we need to be cautious about interpreting the results. To get a clearer picture, future studies should use long-term research methods, standardized tools, and diverse groups of people. This will help us understand how ADHD and sexual behavior are connected over time. Given that ADHD can impact sexual behavior, it's a good idea for healthcare providers to consider ADHD screening for patients with sexual issues like hypersexuality or paraphilias. Sexual disorders can lead to feelings of shame, embarrassment, and loneliness, so it's important to address these concerns in ADHD patients (Bijlenga et al., 2018). Treatment for ADHD, such as medication and therapy, may also be beneficial in addressing associated difficulties in this area. Stimulant medication could potentially decrease the inclination for risky behavior among young individuals with ADHD (Meza et al., 2021; Dalsgaard et al., 2014; Ruiz-Goikoetxea et al., 2018). It is advisable for clinicians managing childhood ADHD to inquire about sexual activity as patients enter adolescence and offer them psychoeducation on practicing safe sex (Halkett et al., 2022; Francis et al., 2022). Treatment approaches should be

multimodal, incorporating both pharmacotherapy and psychosocial interventions (Faraone & Antshel, 2008). Given that poor impulse control appears to be the primary factor influencing whether individuals with ADHD engage in risky sexual behaviors, ensuring readily accessible contraceptives could be instrumental in promoting safety and sexual health (Young et al., 2023). Patient surveys indicate that the majority of patients wish for their healthcare provider to address sexuality-related issues (Marwick, 1999). By taking this into account, healthcare providers can contribute to a more comprehensive treatment approach for individuals with ADHD, potentially enhancing their overall quality of life (Hertz et al., 2022; Pedersen et al., 2024).

Conclusions

Impulsivity, which is common in ADHD, might lead to risky sexual behaviors and unusual sexual interests. Although much of the research relies on self-reported data, which has its limits, it still shows important connections between ADHD and sexual behavior. Future studies should focus on long-term research and include diverse populations to understand how ADHD affects sexual behavior over time. Addressing sexual issues in ADHD patients through both medication and therapy can improve their quality of life.

Disclosure:

Authors' Contribution

Julia Skwara: conceptualization, writing- rough preparation, methodology, investigation, project administration.

Konstancja Węgrzyn: conceptualization, methodology.

Marcin Wasilewski: resources, writing- rough preparation.

Maciej Nowicki: resources, investigation.

Gustaw Laskowski: conceptualization, writing- rough preparation.

Agnieszka Góra: conceptualization, data curation.

Dawid Barański: visualization, data curation.

Anna Salińska: writing - review and editing, supervision.

Piotr Węgrzyn: formal analysis, supervision.

Natalia Dąbrowska: methodology, data curation.

All authors have read and agreed to the published version of the manuscript.

Funding

This study has not received any external funding.

Informed consent

Not applicable.

Data and materials availability

All data sets collected during this study are available upon reasonable request from the corresponding author.

Acknowledgments

The authors have no acknowledgments to report.

Conflict of interest

The authors declare that there is no conflict of interest.

References

1. Polanczyk G, de Lima MS, Horta BL, Biederman J, Rohde LA. The worldwide prevalence of ADHD: a systematic review and metaregression analysis. *Am J Psychiatry*. 2007;164(6):942-8. doi: 10.1176/ajp.2007.164.6.942
2. Bőthe B, Koós M, Tóth-Király I, Orosz G, Demetrovics Z. Investigating the Associations Of Adult ADHD Symptoms, Hypersexuality, and Problematic Pornography Use Among Men and Women on a Largescale, Non-Clinical Sample. *The Journal of Sexual Medicine*. 2019;16(4):489-99. doi: 10.1016/j.jsxm.2019.01.312
3. Niazof D, Weizman A, Weinstein A. The contribution of ADHD and attachment difficulties to online pornography use among students. *Compr Psychiatry*. 2019;93:56-60. doi: 10.1016/j.comppsy.2019.07.002
4. Bob P, Konicarova J, Raboch J. Disinhibition of Primitive Reflexes in Attention Deficit and Hyperactivity Disorder: Insight Into Specific Mechanisms in Girls and Boys. *Front Psychiatry*. 2021;12:430685. doi: 10.3389/fpsy.2021.430685

5. Soldati L, Bianchi-Demicheli F, Schockaert P, Köhl J, Bolmont M, Hasler R, Perroud N. Sexual Function, Sexual Dysfunctions, and ADHD: A Systematic Literature Review. *J Sex Med.* 2020;17(9):1653-64. doi: 10.1016/j.jsxm.2020.03.019
6. Flory K, Molina BS, Pelham WE, Jr., Gnagy E, Smith B. Childhood ADHD predicts risky sexual behavior in young adulthood. *J Clin Child Adolesc Psychol.* 2006;35(4):571-7. doi: 10.1207/s15374424jccp3504_8
7. Wilens TE, Spencer TJ. Understanding attention-deficit/hyperactivity disorder from childhood to adulthood. *Postgrad Med.* 2010;122(5):97-109. doi: 10.3810/pgm.2010.09.2206
8. Rokeach A, Wiener J. The Romantic Relationships of Adolescents With ADHD. *J Atten Disord.* 2018;22(1):35-45. doi: 10.1177/1087054714538660
9. Margherio SM, Capps ER, Monopoli JW, Evans SW, Hernandez-Rodriguez M, Owens JS, DuPaul GJ. Romantic Relationships and Sexual Behavior Among Adolescents With ADHD. *J Atten Disord.* 2021;25(10):1466-78. doi: 10.1177/1087054720914371
10. Halkett A, Hinshaw SP. Initial Engagement in Oral Sex and Sexual Intercourse Among Adolescent Girls With and Without Childhood Attention-Deficit/Hyperactivity Disorder. *Arch Sex Behav.* 2021;50(1):181-90. doi: 10.1007/s10508-020-01733-8
11. Heywood W, Patrick K, Smith AM, Pitts MK. Associations between early first sexual intercourse and later sexual and reproductive outcomes: a systematic review of population-based data. *Arch Sex Behav.* 2015;44(3):531-69. doi: 10.1007/s10508-014-0374-3
12. Vasilenko SA, Kugler KC, Rice CE. Timing of First Sexual Intercourse and Young Adult Health Outcomes. *J Adolesc Health.* 2016;59(3):291-7. doi: 10.1016/j.jadohealth.2016.04.019
13. Hechtman L, Swanson JM, Sibley MH, Stehli A, Owens EB, Mitchell JT, Arnold LE, Molina BS, Hinshaw SP, Jensen PS, Abikoff HB, Perez Algorta G, Howard AL, Hoza B, Etcovitch J, Houssais S, Lakes KD, Nichols JQ. Functional Adult Outcomes 16 Years After Childhood Diagnosis of Attention-Deficit/Hyperactivity Disorder: MTA Results. *J Am Acad Child Adolesc Psychiatry.* 2016;55(11):945-52.e2. doi: 10.1016/j.jaac.2016.07.774
14. Young S, Cocallis K. A Systematic Review of the Relationship Between Neurodiversity and Psychosexual Functioning in Individuals with Autism Spectrum Disorder (ASD) or

Attention-Deficit/Hyperactivity Disorder (ADHD). *Neuropsychiatr Dis Treat*. 2023;19:1379-95. doi: 10.2147/ndt.S319980

15. Hua MH, Huang KL, Hsu JW, Bai YM, Su TP, Tsai SJ, Li CT, Lin WC, Chen TJ, Chen MH. Early Pregnancy Risk Among Adolescents With ADHD: A Nationwide Longitudinal Study. *J Atten Disord*. 2021;25(9):1199-206. doi: 10.1177/1087054719900232

16. Langevin R, Marshall C, Wallace A, Gagné ME, Kingsland E, Temcheff C. Disentangling the Associations Between Attention Deficit Hyperactivity Disorder and Child Sexual Abuse: A Systematic Review. *Trauma Violence Abuse*. 2023;24(2):369-89. doi: 10.1177/15248380211030234

17. Halkett A, O'Grady SM, Hinshaw SP. An Exploratory Investigation of Childhood Sexual Abuse and Other Theory-Driven Predictors of Sex Work Among Women with and without Childhood ADHD. *J Child Adolesc Trauma*. 2022;15(4):949-62. doi: 10.1007/s40653-022-00467-0

18. Puri N, Shannon K, Nguyen P, Goldenberg SM. Burden and correlates of mental health diagnoses among sex workers in an urban setting. *BMC Womens Health*. 2017;17(1):133. doi: 10.1186/s12905-017-0491-y

19. Rohacek AM, Firkey MK, Woolf-King SE, Antshel KM. Moderation of Risks to Sexual Health by Substance Use in College Students With ADHD. *J Clin Psychiatry*. 2022;83(4). doi: 10.4088/JCP.21m14240

20. Berry MS, Sweeney MM, Dolan SB, Johnson PS, Pennybaker SJ, Rosch KS, Johnson MW. Attention-Deficit/Hyperactivity Disorder Symptoms Are Associated with Greater Delay Discounting of Condom-Protected Sex and Money. *Arch Sex Behav*. 2021;50(1):191-204. doi: 10.1007/s10508-020-01698-8

21. Weyandt L, DuPaul GJ, Shepard E, Labban JD, Francis A, Beatty A, Anastopoulos AD. Longitudinal Examination of Sexual Risk Behavior in College Students With and Without Attention-Deficit/Hyperactivity Disorder. *Arch Sex Behav*. 2023;52(8):3505-19. doi: 10.1007/s10508-023-02660-0

22. Soldati L, Bianchi-Demicheli F, Schockaert P, Köhl J, Bolmont M, Hasler R, Perroud N. Association of ADHD and hypersexuality and paraphilias. *Psychiatry Res.* 2021;295:113638. doi: 10.1016/j.psychres.2020.113638
23. Bőthe B, Tóth-Király I, Potenza MN, Griffiths MD, Orosz G, Demetrovics Z. Revisiting the Role of Impulsivity and Compulsivity in Problematic Sexual Behaviors. *J Sex Res.* 2019;56(2):166-79. doi: 10.1080/00224499.2018.1480744
24. Korchia T, Boyer L, Deneuville M, Etchecopar-Etchart D, Lancon C, Fond G. ADHD prevalence in patients with hypersexuality and paraphilic disorders: a systematic review and meta-analysis. *Eur Arch Psychiatry Clin Neurosci.* 2022;272(8):1413-20. doi: 10.1007/s00406-022-01421-9
25. Hertz PG, Turner D, Barra S, Biedermann L, Retz-Junginger P, Schöttle D, Retz W. Sexuality in Adults With ADHD: Results of an Online Survey. *Front Psychiatry.* 2022;13:868278. doi: 10.3389/fpsyt.2022.868278
26. Amani Jabalkandi S, Raisi F, Shahrivar Z, Mohammadi A, Meysamie A, Firoozikhojastefar R, Irani F. A study on sexual functioning in adults with attention-deficit/hyperactivity disorder. *Perspect Psychiatr Care.* 2020;56(3):642-8. doi: 10.1111/ppc.12480
27. Arrondo G, Osorio A, Magallón S, Lopez-Del Burgo C, Cortese S. Attention-deficit/hyperactivity disorder as a risk factor for being involved in intimate partner violence and sexual violence: a systematic review and meta-analysis. *Psychol Med.* 2023;53(16):7883-92. doi: 10.1017/s0033291723001976
28. Privara M, Bob P. Sexual development in ADHD and internet pornography consumption. *Front Psychiatry.* 2023;14:1240222. doi: 10.3389/fpsyt.2023.1240222
29. Wymbs BT, Dawson AE, Suhr JA, Bunford N, Gidycz CA. ADHD Symptoms as Risk Factors for Intimate Partner Violence Perpetration and Victimization. *J Interpers Violence.* 2017;32(5):659-81. doi: 10.1177/0886260515586371
30. Ohlsson Gotby V, Lichtenstein P, Långström N, Pettersson E. Childhood neurodevelopmental disorders and risk of coercive sexual victimization in childhood and

adolescence - a population-based prospective twin study. *J Child Psychol Psychiatry*. 2018;59(9):957-65. doi: 10.1111/jcpp.12884

31. Snyder JA. The Link Between ADHD and the Risk of Sexual Victimization Among College Women: Expanding the Lifestyles/Routine Activities Framework. *Violence Against Women*. 2015;21(11):1364-84. doi: 10.1177/1077801215593647

32. Wymbs BT, Gidycz CA. Examining Link Between Childhood ADHD and Sexual Assault Victimization. *J Atten Disord*. 2021;25(11):1612-22. doi: 10.1177/1087054720923750

33. Bijlenga D, Vroege JA, Stammen AJM, Breuk M, Boonstra AM, van der Rhee K, Kooij JJS. Prevalence of sexual dysfunctions and other sexual disorders in adults with attention-deficit/hyperactivity disorder compared to the general population. *Atten Defic Hyperact Disord*. 2018;10(1):87-96. doi: 10.1007/s12402-017-0237-6

34. Meza JI, Owens EB, Hinshaw SP. Childhood predictors and moderators of lifetime risk of self-harm in girls with and without attention-deficit/hyperactivity disorder. *Dev Psychopathol*. 2021;33(4):1351-67. doi: 10.1017/s0954579420000553

35. Dalsgaard S, Nielsen HS, Simonsen M. Consequences of ADHD medication use for children's outcomes. *J Health Econ*. 2014;37:137-51. doi: 10.1016/j.jhealeco.2014.05.005

36. Ruiz-Goikoetxea M, Cortese S, Aznarez-Sanado M, Magallón S, Alvarez Zallo N, Luis EO, de Castro-Manglano P, Soutullo C, Arrondo G. Risk of unintentional injuries in children and adolescents with ADHD and the impact of ADHD medications: A systematic review and meta-analysis. *Neurosci Biobehav Rev*. 2018;84:63-71. doi: 10.1016/j.neubiorev.2017.11.007

37. Francis AR, Oster DR, Weyandt L, DuPaul GJ, Anastopoulos AD, Gudmundsdottir BG, Beatty A. Factor Structure of the Sexual Risk Survey Among U.S. College Students with and without ADHD: Assessing Clinical Utility with a High-Risk Population. *Arch Sex Behav*. 2022;51(6):2931-42. doi: 10.1007/s10508-021-02249-5

38. Faraone SV, Antshel KM. Diagnosing and treating attention-deficit/hyperactivity disorder in adults. *World Psychiatry*. 2008;7(3):131-6. doi: 10.1002/j.2051-5545.2008.tb00179.x

39. Young S, Klassen LJ, Reitmeier SD, Matheson JD, Gudjonsson GH. Let's Talk about Sex... and ADHD: Findings from an Anonymous Online Survey. *Int J Environ Res Public Health*. 2023;20(3). doi: 10.3390/ijerph20032037
40. Marwick C. Survey says patients expect little physician help on sex. *Jama*. 1999;281(23):2173-4. doi: 10.1001/jama.281.23.2173
41. Pedersen H, Skliarova T, Pedersen SA, Gråwe RW, Havnen A, Lara-Cabrera ML. Psychoeducation for adult ADHD: a scoping review about characteristics, patient involvement, and content. *BMC Psychiatry*. 2024;24(1):73. doi: 10.1186/s12888-024-05530-8