

Supplementary Online Content

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). *Neuropsychiatric Disease and Treatment*. 2023.

Supplementary File 1 Electronic search strategy

Search	Keywords
1	adhd or attention deficit hyperactivity disorder AND risky sexual behavior
2	adhd or attention deficit hyperactivity disorder AND sexual dysfunction
3	adhd or attention deficit hyperactivity disorder AND sexual deviance
4	adhd or attention deficit hyperactivity disorder AND sexual risk taking
5	asd or autism spectrum disorder or autism AND risky sexual behavior
6	asd or autism spectrum disorder or autism AND sexual dysfunction
7	asd or autism spectrum disorder or autism AND sexual deviance
8	asd or autism spectrum disorder or autism AND sexual risk taking
9	adhd or attention deficit hyperactivity disorder AND sexual victim* OR coercive sexual behavior
10	adhd or attention deficit hyperactivity disorder AND sexual attitudes OR sexual interests
11	adhd or attention deficit hyperactivity disorder AND sexual attitudes
12	adhd or attention deficit hyperactivity disorder AND sexual interests
13	asd or autism spectrum disorder or autism AND sexual victim* OR coercive sexual behavior
14	asd or autism spectrum disorder or autism AND sexual attitudes OR sexual interests
15	asd or autism spectrum disorder or autism AND sexual attitudes
16	asd or autism spectrum disorder or autism AND sexual interests
17	adhd or attention deficit hyperactivity disorder AND sexual victim*
18	adhd or attention deficit hyperactivity disorder AND coercive sexual behavior
19	asd or autism spectrum disorder or autism AND sexual victim*
20	asd or attention deficit hyperactivity disorder AND coercive sexual behavior

* Asterisk wildcard (truncation) used to search for various word endings

Supplementary File 2 Quality assessment of the included ASD studies by Newcastle-Ottawa

Scale

Author(s), Year	Selection	Comparability	Exposure / Outcome	Total Score	Quality Rating
Bejerot & Eriksson, 2014 ²²	★★★	★	★	5	Moderate
Brown-Lavoie et al., 2014 ²⁸	★★	★	★	4	Moderate
Dekker et al., 2017 ³	★★★★	★	★	6	Moderate
Dewinter et al., 2015 ²⁴	★★	★	★	4	Moderate
Dewinter et al., 2016 ²⁶	★★	★	★	4	Moderate
Dewinter et al., 2017 ¹⁸	★★	★	★	4	Moderate
Gilmour et al., 2012 ¹⁹	★		★	2	Low
Ginevra et al., 2016 ³¹	★★		★	3	Low
Joyal et al., 2021 ²³	★		★	2	Low
May et al., 2017 ²⁰	★★	★	★	4	Moderate
Mehzabin & Stokes, 2011 ²⁵	★		★	2	Low
Pecora et al., 2019 ²⁹	★	★	★	3	Low
Pecora et al., 2020 ²¹	★	★	★	3	Low
Stokes & Kaur, 2005 ³³	★★		★★	4	Moderate
Stokes et al., 2007 ³²	★★		★	3	Low
Turner et al., 2019 ²⁷	★★	★	★	4	Moderate
Weiss & Fardella, 2018 ³⁰	★★★★	★	★	5	Moderate

Supplementary File 3 Quality assessment of the included ADHD studies by Newcastle-Ottawa

Scale

Author(s), Year	Selection	Comparability	Exposure / Outcome	Total Score	Quality Rating
Abdel-Hamid et al., 2021 ⁴²	★★	★★	★	5	Moderate
Amani Jabalkandi et al., 2020 ⁴³	★★★★	★★	★	6	Moderate
Barkley et al., 2006 ³⁴	★★	★	★	4	Moderate
Bijlenga et al., 2018 ³⁶	★★★★		★	4	Moderate
Chen et al., 2018 ⁵⁰	★★★★★	★★	★★★★	9	High
Flory et al., 2006 ³⁷	★★★★★	★★	★	7	High
Hechtman et al., 2016 ³⁹	★★★★★	★	★	6	Moderate
Hertz et al., 2022 ³⁵	★★★★		★	4	Moderate
Hoza et al., 2013 ³⁸	★★★★★	★★	★	7	High
Hua et al., 2021 ⁴⁴	★★★★★	★★	★★★★	9	High
Huggins et al., 2015 ⁴¹	★★★★	★	★	5	Moderate
Meinzer et al., 2020 ⁴⁵	★★★★★	★	★	6	Moderate
Østergaard et al., 2017 ⁴⁶	★★★★★	★★	★★★★	9	High
Owens and Hinshaw, 2020 ⁴⁷	★★★★★	★★	★★★★	9	High
Owens et al., 2017 ⁴⁸	★★★★★	★★	★★★★	9	High
Rokeach & Wiener, 2018 ⁴⁰	★★		★	3	Low
Skoglund et al., 2019 ⁴⁹	★★★★★	★	★★★★	8	High
Snyder, 2015 ⁵²	★★	★	★	4	Moderate
Wymbs & Gidycz, 2021 ⁵¹	★★		★	3	Low

Supplementary File 4 ASD studies included in the review

Author(s), Year, Country	Sample	Diagnostic criteria	Outcomes examined	Measures used	Main findings
Bejerot & Eriksson, 2014 ²² Sweden	N = 103 ASD = 50 (26 males, M = 31.8, SD = 7.8; 24 females, M = 28.1, SD = 6.3) Neurotypical = 53 (28 males, M = 32.9, SD = 7.4; 25 females, M = 27.7, SD = 6.7)	Diagnosis prior to study; ADOS used to confirm diagnosis.	Gender perception Sexual behaviour Sexual debut	Modified version of Bem Sex Role Inventory Self-report 10-item questionnaire developed for study	Higher rates of atypical gender identity and bisexuality in ASD females than neurotypical females. No significant differences in atypical gender identity or sexual attraction between ASD and neurotypical males. Less ASD group had sexual intercourse compared to neurotypical group. Of those that had, ASD group had a later sexual debut than neurotypical peers (ASD males = 22.1, ASD females = 18.7 vs. neurotypical males = 17.4, neurotypical females = 16.5).
Brown-Lavoie et al., 2014 ²⁸ US, Canada	N = 212	Self-report diagnosis of ASD and met AQ cut-off.	Sexual victimization	SES	Higher rates of sexual victimization (unwanted sexual contact, sexual

	<p>ASD = 95 (62% male; M = 27.83, SD = 4.33)</p> <p>neurotypical = 117 (56.4% male; M = 27.60, SD = 4.74)</p>				<p>coercion, rape) among ASD group than neurotypical peers (OR = 2.4-3, 95% CI 1.2-5.3). 78% of ASD group reported at least one occurrence of sexual victimization compared to 47.4% of neurotypical peers.</p> <p>Less actual knowledge was associated with increased risk of victimization.</p>
<p>Dekker et al., 2017³</p> <p>Netherlands</p>	<p>N = 359</p> <p>ASD = 79 parent-report and 58 self-report (86.1% male; M = 16.79, SD = 2.05)</p> <p>neurotypical = 131 parent-report and 91 self-report (45.8% male; M = 16.31, SD = 1.59)</p>	<p>ADI-R and ADOS DSM-IV-TR criteria</p>	<p>Sexual behaviour</p>	<p>TTI</p>	<p>No significant differences between ASD and neurotypical group in the domain of sexual/intimate behaviour when considering self-report.</p> <p>Parent-report results indicated those with ASD had less experience with typical sexual/intimate behaviors, and more inappropriate sexualized behaviors than neurotypical peers.</p>

<p>Dewinter et al., 2015²⁴</p> <p>Netherlands</p>	<p>N = 140 (100% male; 15-18 year olds)</p> <p>ASD = 50 (M = 16.65, SD = 0.78)</p> <p>Neurotypical = 90 (matched on age 15-18)</p>	<p>Diagnosed prior to study. ADI-R and ADOS administered in study.</p>	<p>Sexual behaviour Attitudes toward sexuality</p>	<p>Computerized survey on sexual health developed for the 'Sex under the age of 25 II' study by de Graaf et al. (2012)</p>	<p>No significant differences in experience of sexual behaviors (solo or partnered), including use of explicit sexual materials. Both groups reported comparable ages of sexual debut.</p> <p>No significant differences between groups for reported sexual problems.</p> <p>A small number of ASD individuals reported that they had been forced into sexual behaviors (n=2) or had used sexual coercion (n=3).</p> <p>ASD group was more accepting of homosexuality than neurotypical group (76% vs. 37.8%).</p>
<p>Dewinter et al., 2016²⁶</p> <p>Netherlands</p>	<p>N = 90 (100% male; 16-20 year olds)</p> <p>ASD = 30 (M = 18.62, SD = 0.96)</p>	<p>Diagnosed prior to study. ADOS administered in study.</p>	<p>Lifetime sexual experience</p>	<p>Computerized survey on sexual health developed for the 'Sex under the age of 25 II' study by de Graaf et al. (2012)</p>	<p>Compared to neurotypical boys, less ASD boys had experiences of French-kissing and petting. No significant differences</p>

	Neurotypical = 60 (M = 18.63, SD = 1.09)				<p>were found for other partnered sexual experiences (e.g., oral sex, intercourse).</p> <p>ASD and neurotypical boys reported similar ages of first experience of each sexual behaviour examined.</p> <p>The proportion of boys using internet for sexuality-related means did not differ between ASD and neurotypical group.</p>
<p>Dewinter et al., 2017¹⁸</p> <p>Netherlands</p>	<p>N = 8739</p> <p>ASD = 675 (326 males, M = 46.44, SD = 14.0; 349 females, M = 40.21, SD = 12.4)</p> <p>Neurotypical = 8064 (3927 males, M = 43.79, SD = 15.9; 4137 females, M = 41.55, SD = 15.9)</p>	Self-report, registered in the Netherlands Autism Register (NAR)	Sexual orientation	Questions from Sexual Health questionnaire	ASD group were less likely to feel exclusively attracted to the opposite sex than neurotypical group, especially females.

Gilmour et al., 2012 ¹⁹ Canada	<p>N = 364</p> <p>ASD = 82 (27 males, 55 females; M = 28.9, SD = 9.3)</p> <p>Neurotypical = 282 (102 males, 180 females; M = 23.2, SD = 7.3)</p>	AQ used to confirm diagnosis.	<p>Sexual attitudes</p> <p>Sexual behaviour/experiences</p> <p>Sexual orientation</p>	<p>Sexual Experience Questionnaire</p> <p>Sexual vocabulary Test</p> <p>Self Scale of Sexual Orientation</p>	<p>ASD and neurotypical group had comparable sexual experience.</p> <p>ASD group reported lower scores on heterosexuality than neurotypical group (ASD = 14.45, SD = 9.40; neurotypical = 20.59, SD = 6.78)</p> <p>ASD group reported higher scores on bisexuality (ASD = 4.47, SD = 6.73; neurotypical = 1.60, SD = 3.76); homosexuality (ASD = 4.71, SD = 6.91; neurotypical = 1.16, SD = 4.57); and asexuality (ASD = 1.29, SD = 3.27; neurotypical = .27, SD = 2.09) than neurotypical group.</p> <p>Significant interaction effect of sex by group for heterosexuality and breadth of sexuality.</p> <p>No significant group differences in how</p>
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					closely sexual interests were related to sexual behaviour.
Ginevra et al., 2016 ³¹ Italy	<p>N = 269 parents</p> <p>ASD = 82 (65 mothers and 29 fathers; 63 boys and 19 girls),</p> <p>Ds = 93 (60 mothers and 33 fathers; 41 boys and 52 girls)</p> <p>Neurotypical = 94 (65 mothers and 29 fathers; 50 boys and 44 girls),</p> <p>Adolescents age ranged from 11 to 18 years (M = 14.91, SD = 1.64); boys' M = 15.10, SD = 1.70; girls' M = 14.66, SD = 1.52).</p>	Diagnosis confirmed by Child Neuropsychiatric Services	Sexual behaviour	SBS	ASD displayed more inappropriate sexual behaviors and had greater parental concern than neurotypical peers.
Joyal et al., 2021 ²³ Canada	<p>N = 172</p> <p>ASD = 68 (41 males, M = 19.4 ±2.9; 27 females, M = 19.7 ±2.7)</p>	Self-report of diagnosis by specialized mental health professional based on DSM-IV	<p>Sexual experiences</p> <p>Sexual interests and desires</p> <p>Negative sexual experiences</p> <p>Sexual identity and orientation</p>	Survey based on SBS-III	When compared with neurotypical peers, a significantly lower proportion of the ASD group reported their interest in sex was equal or greater than their peers (ASD

	Neurotypical = 104 (29 males, M 18.4 ±2.1; 75 females, M = 19.1 ±2.6)				<p>60.3% vs. neurotypical 91.3%), with a significantly higher proportion of ASD than neurotypical peers reporting they never or rarely think about sex (ASD 29.4% vs. neurotypical 9.6%).</p> <p>A significantly lower proportion of the ASD males reported watching pornography (ASD 41.5% vs. neurotypical 75.9%) and/or masturbating with pornography regularly (ASD 39% vs. neurotypical 75.9%), compared with neurotypical peers. No significant differences were found between the groups of females.</p> <p>A significantly lower proportion of the ASD group reported experience of sexual activity (e.g., oral sex, sexual intercourse) compared with neurotypical peers.</p>
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					<p>No significant differences between groups for negative sexual experiences or sexual orientation.</p> <p>A significantly lower proportion of the ASD group reported that they identified with their assigned gender identity compared with neurotypical peers (ASD 73.5% vs. neurotypical 95.2%).</p>
<p>May et al., 2017²⁰</p> <p>Australia</p>	<p>N = 3548 (14/15 year olds)</p> <p>ASD = 94 (73 males; 21 females; M = 178.9 months, SD = 3.8)</p> <p>Neurotypical = 3454 (1685 males; 1675 females; M = 179.2 months, SD = 4.1)</p>	Parent-report	Sexual orientation, attraction, and behaviour	Audio computer-assisted self-interview (ACASI)	<p>ASD females reported lower rates of heterosexuality, (OR = 0.14), higher rates of bisexuality (OR = 6.05) and higher rates of uncertainty in attraction (OR = 10.44) compared with neurotypical females.</p> <p>No significant differences between groups ever having had sex.</p> <p>Mean age of first sexual intercourse</p>

					was significantly different for females (ASD = 12.7 vs. neurotypical = 14.2) though findings are tentative due to small number of ASD females who had had sex (n = 3).
Mehzabin & Stokes, 2011 ²⁵ Australia	N = 60 ASD = 21 (12 males, M = 25.3, SD = 3.6; 9 females; M = 23.4, SD = 1.9) Neurotypical = 39 (15 males, M = 23.7, SD = 3.1; 24 females; M = 22.6, SD = 2.1)	Self-report	Sexual behaviour and experience	SBS	ASD group had fewer sexual experiences than neurotypical group. ASD group and neurotypical group showed similar levels of public sexualized behaviour.
Pecora et al., 2019 ²⁹ US	N = 459 ASD = 232 (96 males; 135 females, 1 unreported sex; M = 25.13, SD = 7.96) Neurotypical = 227 (66 males, 161 females; M = 22.16, SD = 5.25)	Self-report; AQ completed as a screen.	Sexual interests, behaviors, and experiences	SBS-III	No significant differences between ASD and neurotypical females in interest in sexual behaviour (ASD 72.6% vs. neurotypical 78.1%) or sexual experience. No significant differences between ASD and neurotypical females in rates of

					<p>later regretted sexual experiences.</p> <p>ASD females were more likely to have consented to an unwanted sexual event (ASD 60% vs. neurotypical 34.6%; OR = 2.56) and being subject to an unwanted sexual advance or experience (ASD 78.2% vs. 57.7%; OR = 2.21) than neurotypical females.</p>
<p>Pecora et al., 2020²¹</p> <p>US</p>	<p>N = 295 (100% female)</p> <p>ASD = 134 (M = 26.2, SD = 8.7)</p> <p>Neurotypical = 161 (M = 22, SD = 4.6)</p>	<p>Diagnosis confirmed by AQ.</p>	<p>Gender identity</p> <p>Sexual orientation</p> <p>Negative sexual experiences</p>	<p>SBS-III</p>	<p>ASD females were more likely to report a non-heterosexual sexual orientation than neurotypical females (OR = Homosexual sexual orientation 2.39; Bisexual sexual orientation 2.33).</p> <p>ASD homosexual females were more likely to report an unwanted sexual experience (OR = 2.98) and unwanted advance (OR = 2.94)</p>

					<p>than neurotypical heterosexual females.</p> <p>ASD homosexual females were more likely to report an unwanted sexual experience than neurotypical homosexual females (OR = 2.38).</p> <p>ASD bisexual females were less likely to report having engaged in in a regretted sexual behaviour than neurotypical heterosexual females (OR = 0.38).</p>
<p>Stokes & Kaur, 2005³³</p> <p>Australia</p>	<p>N = 73 Completed by parents</p> <p>ASD = 23 (17 males, M = 12.6 years, SD = 1.9; 6 females, M = 13.0, SD = 0.6)</p> <p>Neurotypical = 50 (33 males, M = 13.5, SD = 1.4; 17 females, M = 13.1, SD = 1.5)</p>	Parent-reported	Sexual behaviour	SBS	<p>Adolescents with ASD displayed more inappropriate sexual behaviors and had parents who expressed greater concerns than neurotypical peers.</p>

Stokes et al., 2007 ³² Australia	<p>N = 63</p> <p>ASD = 25 (16 males; 9 females; M = 22.21, SD = 6.13)</p> <p>Neurotypical = 38 (32 males, 6 females; M = 20.83, SD = 4.83)</p>	Parent-reported	Romantic functioning	CBS	<p>When compared to neurotypical peers, individuals with ASD demonstrate lower level of overall romantic functioning when controlling for age.</p> <p>ASD individuals are less likely to initiate romantic relationships, when they do, they direct behaviors disproportionately to inappropriate targets, pursue targets for longer, and are more likely to engage in inappropriate courting behaviour, than neurotypical peers.</p>
Turner et al., 2019 ²⁷ Germany	<p>N = 192</p> <p>ASD = 96 (58.3% male; M = 39.2, SD = 9.5)</p> <p>Neurotypical = 96 (59.4% male; M = 37.9, SD = 9.7)</p>	Self-reported had been diagnosed by an experienced psychiatrist or psychologist	Sexual satisfaction and dysfunction	IIEF FSFI SIS/SES-SF	<p>Compared to ASD females, more neurotypical females viewed sexuality as an important part in their lives (neurotypical 53.8% vs. ASD 20%).</p> <p>More neurotypical females viewed themselves as sexually attractive</p>

					<p>(53.8% vs. ASD 20%).</p> <p>There were no significant differences between females in satisfaction with current relationship or sexual life.</p> <p>Neurotypical females scored significantly higher on all FSFI subscales, indicating better sexual functioning than ASD females.</p> <p>More neurotypical males were satisfied with their current relationship (neurotypical 63.8% vs. ASD 11.1%) and sexual life (neurotypical 59.6% vs. ASD 10.7%).</p> <p>More neurotypical males viewed themselves as sexually attractive (neurotypical 73.7% vs. ASD 3.6%).</p> <p>No differences between males</p>
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					<p>regarding importance of sexuality.</p> <p>Neurotypical males scored significantly higher for erectile functioning and sexual intercourse satisfaction (IIEF) than ASD males.</p>
<p>Weiss & Fardella, 2018³⁰</p> <p>Canada</p>	<p>N = 87</p> <p>ASD = 45 (42.5% male; M = 30.0, SD = 1.48)</p> <p>Neurotypical = 42 (50% male; M = 32.12, SD = 8.62)</p>	<p>ADOS-2 used to confirm diagnosis.</p>	<p>Sexual victimization and perpetration</p>	<p>JVQ-AR</p>	<p>During childhood, ASD group were 7.3 times more likely to experience sexual assault by a peer than neurotypical group. Neurotypical group were 4.4 times more likely than ASD group to have endorsed having sexual relations with someone over 18.</p> <p>ASD group was 3.01-3.07 times more likely to experience sexual contact victimization (sexual assault by known adult, attempted or completed rape) in adulthood. Neurotypical group were 2.3 times more likely to endorse</p>

					<p>flashing or sexual exposure than ASD group.</p> <p>Low rates of adult sexual perpetration reported, no significant differences between ASD and neurotypical group.</p>
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Supplementary File 5 ADHD studies included in the review

Author(s), Year, Country	Sample	Diagnostic criteria	Outcomes examined	Measures used	Main findings
Abdel-Hamid et al., 2021 ⁴² Germany	N = 64 ADHD = 32 (50% female; M = 33.75, SD = 10.93) Neurotypical = 32 (50% female; M = 33.59, SD = 11.18)	DSM-IV and ICD-10	Sexual dysfunction	DÄS-Zuf	Compared with neurotypical peers, individuals with ADHD scored significantly higher on some single items measuring sexual dysfunction, however, when controlling for anxiety/depression, none of the previously found differences remained significant.
Amani Jabalkandi et al., 2020 ⁴³ Iran	N = 129 ADHD = 63 (31 females and 32 males; M = 31.11 ±4.29) Neurotypical = 66 (31 females and 35 males; M = 31.38±4.30)	DIVA-2	Sexual satisfaction and dysfunction	IIEF FSFI	ADHD females demonstrated poorer results for all sexual functioning domains compared to neurotypical peers. Compared to neurotypical peers, ADHD males demonstrated poorer results for all sexual functioning domains except for desire.
Barkley et al., 2006 ³⁴ US	N = 225 (91% male) ADHD (hyperactive in childhood) = 149 (M = 21.1 years, SD = 1.3)	Not specified, reader directed to previous article (Barkley et al., 1990).	Sexual orientation Age at first sexual intercourse	Interview	98% of ADHD and neurotypical group reported being exclusively heterosexual.

	Neurotypical = 72 (M = 20.5 years, SD = 0.6)		<p>Number of sexual partners</p> <p>Use of contraception</p> <p>Pregnancy</p> <p>Sexual dysfunction</p> <p>STIs</p>		<p>Significantly earlier age at first sexual intercourse for ADHD group (M = 15.5, SD = 2.7) than neurotypical group (M = 16.3, SD = 2.0); mostly predicted by lifetime CD symptoms.</p> <p>Increased number of sexual partners for ADHD group (M = 13.6, SD = 17.1) than neurotypical group (M = 13.6, SD = 17.1).</p> <p>More individuals with ADHD reported rarely or never using contraception than neurotypical peers (25% vs. 10%).</p> <p>More individuals with ADHD reported being involved in a pregnancy than neurotypical peers (38% vs. 4%; separated by gender: males 33% vs. 3% and females 68% vs. 17%).</p> <p>Few individuals reported sexual dysfunctions with no significant differences between ADHD and group.</p>
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					<p>More individuals with ADHD reported having contracted an STI than neurotypical peers (17% vs. 4%). More had also been tested for HIV (54% vs. 21), although no individuals reported testing positive.</p>
<p>Bijlenga et al., 2018³⁶</p> <p>Netherlands</p>	<p>N = 4283</p> <p>ADHD = 136 (76 males, M= 35, SD = 10; 60 females, M = 35, SD = 13)</p> <p>Neurotypical = 4147 (2072 males, M = 42, SD = 13; 2075 females, M = 43, SD = 13)</p>	<p>DSM-IV using DIVA-2.0</p>	<p>Sexual activity and satisfaction, and dysfunction</p>	<p>QSD QSP</p>	<p>ADHD males were more sexually active than the neurotypical males, though were less often satisfied about their sex life (ADHD 27% vs. neurotypical 68%).</p> <p>ADHD males more often reported sexual aversion (12 vs. 1%) and little desire for sexual contact (6 vs. 0%) than neurotypical peers.</p> <p>ADHD females reported lower rate of infrequent sexual fantasies (49% vs. 68%) and were less often satisfied about sex life (ADHD 35% vs. neurotypical 65%) than neurotypical females.</p> <p>ADHD females more often reported sexual aversion (15 vs. 4%)</p>

					<p>than neurotypical females.</p> <p>ADHD females more often reported ambivalent gender identity (11 vs. 5%), transvestic fetishistic desire (5 vs. 0%), transvestic fetishistic activity (5 vs. 0%), and pedophilic desire (2 vs. 0%) than neurotypical females.</p>
<p>Chen et al., 2018⁵⁰</p> <p>Taiwan</p>	<p>N = 89,490</p> <p>ADHD = 17,898 (80.4% male; M = 14.88, SD = 3.33)</p> <p>Neurotypical = 71,592 (80.4% male; M = 14.89, SD = 3.34)</p>	<p>ICD-9 diagnosis by board-certified psychiatrist</p>	<p>STIs</p>	<p>NHIRD</p>	<p>After adjusting for demographic data, psychiatric comorbidities and ADHD medication, adolescents (HR 3.27, 95% CI 2.51-4.25), young adults (HR 3.57, 95% CI 2.30-5.54) males (HR 3.81, 95% CI 2.88-5.04) and females (HR 2.71, 95% CI 1.85-3.96) with ADHD were more likely to develop STI later in life than neurotypical peers.</p> <p>Short-term (HR 0.70, 95% CI 0.53-0.94) and long-term use of ADHD medication (HR 0.59, 95% CI 0.37-0.93)</p>

					decreased risk of developing STI.
Flory et al., 2006 ³⁷ US	N = 286 (18-26 year old males) ADHD = 175 (M = 17.74, SD = 3.38) Neurotypical = 111 (M = 17.17, SD = 3.16)	DSM-III and DSM-IV	Risky sexual behaviors	HSBQ SDQ	ADHD males were significantly more likely to have had casual sex during past year, casual sex with infrequent condom use, multiple sex partners, and intercourse that led to pregnancy than neurotypical peers. No significant differences for STI or infrequent use of reliable birth control methods. ADHD without an ODD or CD diagnosis were at increased risk for casual sex (OR = 2.91) and infrequent condom use (OR = 5.14).
Hechtman et al., 2016 ³⁹ US, Canada	N = 717 ADHD = 476 Neurotypical = 241 (matched on age and sex) Age range in adulthood 19-28 years (M = 24.7 at 16 years post-baseline)	Diagnosed using DSM-IV criteria via parent DISC and teacher reports.	Age of first sexual intercourse, number of partners, number of pregnancies by 18, and number of offspring	MTA Health Information and Demographic Survey	ADHD associated with younger age at first sexual intercourse (ADHD 16.3 vs. neurotypical 17.2), more sexual partners (ADHD 15.7 vs. neurotypical 9.45), increased risk of pregnancy (ADHD 9.1% vs. neurotypical 3.7%), and greater number of offspring by age 18, covarying age.

					<p>Symptom-Persistent subgroup was significantly different from the Symptom-Desistent subgroup on age of first intercourse and marginally different on number of partners, but not risk of early pregnancy or number of offspring. Effect sizes were small/medium.</p>
<p>Hertz et al., 2022³⁵</p> <p>Germany</p>	<p>N = 206</p> <p>ADHD = 139 (89 females, 44 males, 6 diverse; M = 36.8, SD = 10.3)</p> <p>Neurotypical = 67 (44 females, 21 males, 2 diverse; M = 34.3, SD = 11.2)</p>	<p>Self-reported diagnosis by psychologist or psychiatrist. SR-WRAADDs used to assess ADHD symptomatology.</p>	<p>Sexual orientation</p> <p>Risky sexual behaviors</p> <p>Hypersexual behaviors</p> <p>Sexual dysfunction</p>	<p>SRS</p> <p>HBI-19</p> <p>SBQ-G</p>	<p>No significant differences between ADHD and neurotypical peers for sexual orientation, however, significantly more individuals with ADHD reported homosexual experiences and this difference was more pronounced in females.</p> <p>Younger age at time of first sexual experience for ADHD than neurotypical females. No significant differences when comparing males.</p> <p>Individuals with ADHD had significantly higher HBI-19 scores than neurotypical peers,</p>

					<p>however, there were no significant differences between groups meeting hypersexual cut-off value of 53.</p> <p>No significant differences between groups for sexual dysfunctions.</p>
Hoza et al., 2013 ³⁸	<p>N = 645</p> <p>ADHD = 412</p> <p>Neurotypical = 233</p> <p>(79% male; 24-month time point M = 10.4, SD = 0.9; 10-year follow-up M = 18.4, SD = 0.9)</p>	Not specified, reader directed to previous article (Hinshaw et al., 1997).	Risky sexual behaviour	HSBQ	<p>ADHD diagnosis significantly predicted a greater number of lifetime sexual partners. Childhood positive bias in the behavioral domain partially mediated the association.</p> <p>ADHD diagnosis was not a significant predictor of condom use.</p> <p>ADHD diagnosis significantly predicted an earlier age at first intercourse. Greater academic positive bias partially mediated the association.</p>
Hua et al., 2021 ⁴⁴ Taiwan	<p>N = 37,525 (100% females)</p> <p>ADHD = 7505 (age at enrolment M = 12.49, SD = 2.37)</p>	ICD-9 diagnosis by board-certified psychiatrist	Any pregnancy Early pregnancy (<20 years)	NHIRD	Adolescents with ADHD became pregnant at an earlier age (ADHD 18.48 vs. neurotypical 20.53) and had a higher incidence of any

	Neurotypical = 30,020 (age at enrolment M = 12.48, SD = 2.41)				<p>pregnancy (ADHD 4.6% vs. 3.5%).</p> <p>Adjusting for demographic data, socioeconomic status, psychiatric comorbidities and ADHD medication, adolescents with ADHD had increased risks of any pregnancy (HR = 1.27, 95% CI = 1.11, 1.45) and EP (HR = 2.30, 95% CI = 1.94, 2.73) than neurotypical peers.</p> <p>Long-term ADHD medication use significantly lowered risk of any pregnancy (HR = 0.72, 95% CI = 0.53, 0.97) and EP (HR = 0.69, 95% CI = 0.49, 0.98).</p>
Huggins et al., 2015 ⁴¹ US	<p>N = 92</p> <p>ADHD = 44 (20 males, M = 20.25, SD = 1.743); 24 females, M = 20.25, SD = 1.225)</p> <p>Neurotypical = 48 (20 males, M = 18.7, SD = 0.923); 24</p>	DSM-IV based on K-SADS and CAARS-LV	Risky sexual behaviour	HSBQ	<p>ADHD females were less likely to use condoms than neurotypical females. No other significant associations were found between ADHD and RSBs.</p> <p>A high-quality mother relationship was</p>

	females, M = 19.36, SD = 1.026)				protective for ADHD group.
Meinzer et al., 2020 ⁴⁵ US and Canada	N = 868 ADHD = 579 (80.3% male; enrolment age M = 8.5, SD = 0.80) Neurotypical = 289 (matched for age and sex)	DSM-IV	Early pregnancy	Health information questionnaire	Increased risk of pregnancy by age 18 for ADHD group compared to neurotypical group (9.3% vs. 4.6%; OR = 2.08, 95% CI = 1.04 - 4.16). No significant difference in the mean age of first pregnancy between ADHD and neurotypical groups (17.36 years vs. 17.27 years). Delinquency/substance use mediated relationship between ADHD and early pregnancy.
Østergaard et al., 2017 ⁴⁶ Denmark	N = 2,698,052 (1,384,334 males and 1,313,718 females; all individuals born in Denmark from January 1, 1960 through December 31, 2001) ADHD = 27,479 (20,093 males and 7,386 females)	ICD-8 or ICD-10	Teenage pregnancy	Danish civil registration system	Compared with neurotypical peers, individuals with ADHD were significantly more likely to become parents aged 12-16 years (IRR for females 3.62, 95% CI 2.14–6.13; IRR for males 2.30, 95% CI 1.27–4.17) and aged 17–19 years (IRR for females 1.94, 95% CI 1.62–2.33; IRR for males 2.27, 95% CI 1.90–2.70).

	Neurotypical = 2,670,573				
Owens and Hinshaw, 2020 ⁴⁷ US	N = 228 (100% female; enrolment age 6–12 year olds, followed up for 16 years) ADHD = 140 Neurotypical = 88	DISC-IV	Mediators of unplanned pregnancies	BFI SNAP CBCL SUQ WIAT Project-development Social Relationships Interview HSBQ	Serial mediational tests showed that substance use and academic achievement mediated the relationship between ADHD and unplanned pregnancies. When both pathways were entered simultaneously, only academic achievement was significant.
Owens et al., 2017 ⁴⁸ US	N = 228 (100% female; enrolment age 6-12 year olds, followed up for 16 years) ADHD = 140 Neurotypical = 88	DISC-IV	Unplanned pregnancy	Interview	Lower rates of unplanned pregnancies for neurotypical group (10.6%) comparative to Desisters group (48.4%), Partials group (40.5%) and Persisters group (39.2%) (OR 5.4 – 7.9). No significant differences were found between ADHD groups.
Rokeach & Wiener, 2018 ⁴⁰ Canada	N = 58 ADHD = 30 (40% female; M = 15.71, SD = 1.49)	Parent report of diagnosis based on DSM-IV criteria and Conners' Rating Scale-3 rd Edition	Age at first sexual intercourse Number of sexual partners Use of contraception	HSBQ	ADHD males reported younger age of first sexual intercourse than neurotypical peers; no differences between females.

	Neurotypical = 28 (57% female; M = 16, SD = 1.68)		Pregnancy STIs		Increased number of sexual partners and casual sex for individuals with ADHD compared to neurotypical peers. No significant differences between ADHD and neurotypical group for irregular use of contraception, unwanted pregnancy or STI.
Skoglund et al., 2019 ⁴⁹ Sweden	N = 384,103 women and girls ADHD = 6410 (M = 25 years, SD = 5.5 years) Neurotypical = 377 693 (M = 28.5 years, SD = 5.1 years)	ICD-10	Teenage births	Medical Birth Register	Significantly higher rates of teenage births among women and girls with ADHD than neurotypical peers (15.3% vs. 2.8%; OR 6.23, 95% CI 5.80-6.68)
Snyder, 2015 ⁵² US	N = 14,816 ADHD = 652 (4.4%) Neurotypical = 14164 Females aged 18-24 (M = 19.6)	Self-report ADHD	Sexual victimization	Survey	16.5% of ADHD females reported experiencing any type of sexual victimization compared with 10.3% of neurotypical peers. 14.8% of ADHD females reported they had been sexually touched compared with 9.2% of neurotypical peers (OR = 1.41). 8.6% of ADHD females reported they

					had been raped compared with 4% of neurotypical peers (OR = 1.85).
Wymbs & Gidycz, 2021 ⁵¹ US	N = 218 ADHD = 97 (44.33% female; M = 28.03, SD = 5.30) Neurotypical = 121 (45.45% female; M = 28.12, SD = 5.75)	Self-report ADHD	Sexual victimization	SES-SFV	ADHD group were more likely to report any form of sexual victimization than the neurotypical group (53.6% vs. 29.8%; OR = 2.73). ADHD group were more likely to report being victims of attempted rape or rape than the neurotypical group (38.95% vs. 15.70%; OR = 3.31). No significant differences were found between ADHD persistence and desistence groups.