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Abstract
Attention-Deficit/Hyperactivity Disorder (ADHD) commonly persists into adulthood and frequently co-occurs with Substance Use Disorders (SUDs), yet evidence from low- and middle-income countries remains limited. This study examined the prevalence and symptom presentations of ASRS-based probable Adult ADHD among adults receiving treatment for SUDs in selected rehabilitation centres in Nairobi, Kenya. A quantitative descriptive cross-sectional study was conducted among 322 adults recruited through total enumeration from six rehabilitation centres. Adult ADHD symptoms were assessed using the Adult ADHD Self-Report Scale (ASRS v1.1). Overall, 90 of the 322 participants (28.0%) met the criteria for ASRS-based probable Adult ADHD. Among respondents classified as having ASRS-based probable ADHD, the combined presentation was the most prevalent (58.9%), followed by the predominantly inattentive (26.7%) and predominantly hyperactive–impulsive (14.4%) presentations. These findings indicate that ASRS-based probable Adult ADHD was identified in more than one-quarter of adults receiving treatment for SUDs and that the combined presentation predominated among screen-positive respondents. The findings contribute to the limited evidence on ASRS-based probable Adult ADHD among treatment-seeking adults in Sub-Saharan Africa and may inform future research and review of ADHD screening practices in comparable rehabilitation settings.

Introduction

Adult Attention-Deficit/Hyperactivity Disorder (Adult ADHD) is a neurodevelopmental disorder characterised by persistent symptoms of inattention and/or hyperactivity–impulsivity that continue into adulthood. Although historically regarded as a childhood condition, approximately 60% of individuals diagnosed during childhood continue to experience clinically significant symptoms in adulthood, with an estimated global adult prevalence of 2.5% (Di Nicola et al., 2014; Song et al., 2021). Adult ADHD is associated with impairments in educational attainment, occupational functioning, interpersonal relationships, and emotional well-being and is increasingly recognised as a significant public health concern (American Psychiatric Association, 2022; Rohner et al., 2023). Importantly, Adult ADHD commonly co-occurs with Substance Use Disorders (SUDs) and has been associated with earlier initiation of substance use, greater substance use severity, polysubstance use, and poorer addiction treatment outcomes (Begnaud et al., 2026; Coetzee et al., 2020).

Adult ADHD is consistently reported at substantially higher rates among individuals with Substance Use Disorders (SUDs) than in the general population, although prevalence estimates vary according to study populations, primary substances of use, and diagnostic approaches. A landmark meta-analysis of 29 studies involving 6,689 participants reported an overall ADHD prevalence of 23.1% among individuals with SUDs, including 21.0% among adults (van Emmerik-van Oortmerssen et al., 2012). Individual studies likewise demonstrate substantial variation. For example, Rad et al. (2020) reported that approximately 46% of adults receiving treatment for chronic substance use disorders in Romania met criteria for ADHD. More recent reviews continue to report similarly elevated prevalence estimates despite methodological differences across studies (Rohner et al., 2023). Collectively, these findings indicate that co-occurring Adult ADHD represents a common clinical concern among adults receiving treatment for substance use disorders.

Evidence from Africa remains comparatively limited but suggests that Adult ADHD is an under-recognised mental health concern across both community and clinical settings. Community-based studies have reported prevalence estimates ranging from 1.1% in South Africa to 13.1% in Kenya, with higher rates consistently observed among individuals receiving psychiatric care and other clinical populations (Jenkins et al., 2015; Okhakume & Oluwefaemi, 2014; Schoeman & Liebenberg, 2017). These findings indicate that the burden of Adult ADHD varies across settings and underscore the importance of investigating high-risk populations, particularly adults receiving treatment for substance use disorders within African rehabilitation settings.

Individual studies conducted across different African countries have likewise reported substantial variation in the prevalence of Adult ADHD among treatment-seeking populations with SUDs. For example, ADHD prevalence has been reported at approximately 23% among adults receiving treatment for SUDs in Nigerian rehabilitation settings (Umar et al., 2017). In South Africa, Truter et al. (2025) reported that 30.4% of adults receiving treatment for SUDs met diagnostic criteria for ADHD, with individuals presenting with comorbid ADHD demonstrating significantly higher levels of depressive symptoms than those without ADHD. Together, these studies demonstrate that Adult ADHD is highly prevalent among treatment-seeking populations and is frequently accompanied by greater clinical complexity.

Evidence from Kenya remains comparatively limited. Oigara (2022) conducted a cross-sectional study among 130 adults receiving treatment for substance use disorders in three rehabilitation centres in Nairobi County and reported that 25.4% of participants screened positive for probable ADHD using the Adult ADHD Self-Report Scale (ASRS v1.1). Although these findings indicate that ASRS-based probable Adult ADHD is common among Kenyan rehabilitation populations, the evidence is derived from a relatively small sample recruited from three treatment facilities. Consequently, further research is required to establish the prevalence of ASRS-based probable Adult ADHD among adults receiving treatment for SUDs in Kenya and to provide context-specific evidence to inform screening, assessment, and rehabilitation services.

Nairobi County contains one of Kenya's largest concentrations of licensed rehabilitation facilities and serves as a major referral hub for individuals requiring specialist treatment for substance use disorders. Consequently, rehabilitation centres in Nairobi manage patients with diverse clinical presentations and complex psychiatric comorbidities. Despite the concentration of specialised treatment services, little is known about the prevalence of ASRS-based probable Adult ADHD across multiple rehabilitation facilities in Nairobi County. Given the concentration of specialist rehabilitation services in Nairobi County, locally generated evidence is important for understanding the burden of co-occurring Adult ADHD within treatment-seeking populations. Such evidence may assist

rehabilitation centres in reviewing their assessment practices, identifying individuals who may benefit from further ADHD evaluation, and informing future research on integrated care for co-occurring Adult ADHD and Substance Use Disorders in Kenya.

Symptom Presentations of Adult ADHD among patients with substance use disorders

Adult Attention-Deficit/Hyperactivity Disorder (ADHD) is a heterogeneous neurodevelopmental disorder characterised in the DSM-5-TR by three symptom presentations: predominantly inattentive, predominantly hyperactive–impulsive, and combined (APA, 2022). Although these presentations are established diagnostic classifications, screening instruments such as the Adult ADHD Self-Report Scale Version 1.1 (ASRS v1.1) can be used to identify symptom profiles that approximate these presentations among individuals who screen positive for probable ADHD. Emerging evidence suggests that these symptom presentations differ in their clinical characteristics and may be associated with variation in substance use behaviours, treatment outcomes, and functional impairment (Mowlem et al., 2019; Young et al., 2020). Consequently, examining ASRS-based probable ADHD symptom presentations among individuals with Substance Use Disorders (SUDs) may improve understanding of symptom heterogeneity within treatment-seeking populations and inform future diagnostic assessment and clinical research.

Although numerous studies have examined the prevalence of Adult ADHD among individuals with SUDs, comparatively fewer have investigated the distribution of ADHD symptom presentations—or ASRS-based probable presentation profiles—in treatment-seeking populations (Kakubo et al., 2018; Truter et al., 2025; Umar et al., 2017). Evidence from international studies suggests that the combined presentation is generally associated with greater symptom severity and externalising behaviours, whereas the inattentive presentation is more frequently under-recognised despite being common in adulthood (De la Peña et al., 2020; Liebrenz et al., 2016). These findings highlight the importance of examining ADHD presentations separately rather than considering ADHD as a single, homogeneous condition.

Evidence from African settings remains particularly limited. In Kenya, Oigara (2022) examined ASRS-based probable Adult ADHD symptom presentations among adults receiving treatment for SUDs in three rehabilitation centres and reported the combined presentation as the most common presentation, followed by the inattentive and hyperactive–impulsive presentations. However, the study was based on a relatively small sample and limited to three rehabilitation facilities. Consequently, further research is required to establish the distribution of ASRS-based probable Adult ADHD presentations among treatment-seeking populations and to generate context-specific evidence to inform assessment and rehabilitation services in Kenya.

Method

This study employed a quantitative descriptive cross-sectional design to determine the prevalence and symptom presentations of ASRS-based probable Adult Attention-Deficit/Hyperactivity Disorder (ADHD) among patients receiving treatment for Substance Use Disorders (SUDs). The study was conducted between 10 January 2026 and 30 March 2026 in six purposively selected drug and alcohol rehabilitation centres in Nairobi County, Kenya: Asumbi Treatment Centre, Dove Mental Health Hospital, Eden House Rehabilitation Centre, Nairobi Place Specialised Medical Centre, New Chapter Place Counselling and Rehabilitation Centre, and The Optimum Centre for Specialised Treatment. At the time of data collection, the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA) listed 14 licensed rehabilitation centres within Nairobi County. These six centres were purposively selected because they offered structured addiction treatment programmes, served adult clients, maintained adequate patient records, and granted permission for the study.

The target population comprised 390 adults aged 18–65 years receiving treatment for SUDs within the selected rehabilitation centres. Eligible participants had completed the initial detoxification phase of treatment (approximately two weeks following admission), were clinically stable, able to provide informed consent, and receiving treatment during the data collection period. Individuals with severe cognitive impairment, acute psychiatric instability, or medical conditions that precluded completion of the study questionnaires were excluded. A total enumeration approach was employed, in which all eligible patients at the selected rehabilitation centres were invited to participate. Because all eligible patients were invited, a formal sample size calculation was not undertaken. Of the 390 eligible participants, 322 completed the study questionnaires, yielding a response rate of 82.6%. Forty-four eligible participants declined participation, while 24 returned incomplete questionnaires and were excluded from the analysis. The distribution of eligible participants and respondents across the participating rehabilitation centres is presented in Table 1.

Table 1: Eligible Population and Participant Recruitment Across the Participating Rehabilitation Centres

Rehabilitation Centre	Eligible Patients, n	Participants Recruited, n
Asumbi Treatment Centre	70	58
Dove Mental Health Hospital	120	94
Eden House Rehabilitation Centre	50	43
Nairobi Place Specialised Medical Centre	40	39
New Chapter Place Counselling and Rehabilitation Centre	50	37
The Optimum Centre for Specialised Treatment	60	51
Total	**390**	**322**

Data were collected using a researcher-developed socio-demographic questionnaire and the Adult ADHD Self-Report Scale Version 1.1 (ASRS v1.1). The socio-demographic questionnaire collected information on age, sex, marital status, education, employment status, and substance-use history, including age at initiation of substance use and polysubstance use. The questionnaires were administered in English and Kiswahili and completed independently by participants, with trained research assistants available to clarify procedural questions where required.

The ASRS v1.1 was administered to all 322 participants included in the study. The full sample (N = 322) was used to determine the proportion meeting the study criteria for ASRS-based probable adult ADHD. Analyses of ADHD symptom presentations were subsequently restricted to participants meeting these criteria (n = 90). The ASRS v1.1 is an 18-item self-report screening instrument developed by the World Health Organization in collaboration with researchers at Harvard Medical School to assess symptoms corresponding to the inattentive and hyperactive–impulsive domains of adult ADHD (Kessler et al., 2005). The instrument comprises six Part A items with the greatest utility for identifying probable ADHD and 12 additional Part B items that provide further information regarding ADHD symptoms (Kessler et al., 2007). Part A was used as the initial screening stage in the present study, with four or more positive responses among the six items indicating a positive screen.

For participants screening positive on Part A, responses to the full 18-item ASRS were subsequently used to derive symptom-domain counts. The domain structure followed the ASRS subscales described by Stanton et al. (2018) and the scoring framework reported by Hegarty et al. (2024). The Inattention domain comprised Items 1–4 and 7–11. The Hyperactivity–Impulsivity domain comprised motor Hyperactivity–Impulsivity Items 5, 6, and 12–14 and verbal Hyperactivity–Impulsivity Items 15–18. The motor and verbal components were combined for the present analysis to correspond with the DSM-5-TR Hyperactivity–Impulsivity symptom domain.

For calculation of domain symptom counts, responses to individual ASRS items were dichotomised as symptom endorsed (1) or not endorsed (0) using the original item-specific ASRS endorsement thresholds. Items 1, 2, 3, 9, 12, 16, and 18 were considered endorsed when participants responded *Sometimes*, *Often*, or *Very Often*, whereas Items 4, 5, 6, 7, 8, 10, 11, 13, 14, 15, and 17 were considered endorsed only when participants responded *Often* or *Very Often*. This dichotomous scoring procedure was used specifically to calculate the number of symptoms endorsed within each domain and not to derive an overall ASRS severity score.

Consistent with the DSM-5-TR adult symptom threshold, five or more endorsed symptoms within a nine-item domain were required to meet the study criterion for that domain. Participants endorsing five or more Inattention symptoms and fewer than five Hyperactivity–Impulsivity symptoms were classified as having a predominantly inattentive presentation. Those endorsing five or more Hyperactivity–Impulsivity symptoms and fewer than five Inattention symptoms were classified as having a predominantly hyperactive–impulsive presentation, while those endorsing five or more symptoms in both domains were classified as having a combined presentation. These categories represent study-derived ASRS-based probable ADHD symptom presentations and should not be interpreted as clinically confirmed DSM-5-TR ADHD diagnoses.

The version of the ASRS v1.1 Symptom Checklist administered in the study also contained an age-of-onset item immediately following the 18 symptom-frequency items, which asked, "How old were you when these problems first began to occur?" Responses were recorded as age in years. For the present analysis, retrospective age of onset was coded as before age 12 (<12 years) or age 12 years and older (≥12 years), consistent with the DSM-5-TR developmental-onset criterion. Missing or unknown age-of-onset information was coded as not meeting the onset criterion. The age-of-onset item was treated separately from the standard ASRS Part A screening algorithm and was applied as an additional study classification criterion.

Accordingly, ASRS-based probable adult ADHD classification was undertaken sequentially. Of the 322 participants who completed the ASRS, 115 met the initial Part A screening threshold of four or more positive responses. These participants were subsequently evaluated against the study's DSM-5-TR-aligned domain threshold of five or more endorsed symptoms in at least one of the two nine-item symptom domains. Five Part A-positive participants did not meet this additional criterion and were therefore not classified as meeting the study criteria for probable ADHD, leaving 110 participants who proceeded to evaluation of the age-of-onset criterion. Of these, 90 retrospectively reported symptom onset before age 12 and were retained in the final ASRS-based probable adult ADHD analytical sample. Nineteen participants reported onset at age 12 years or older, and one had unknown age of onset; these participants were not classified as meeting the study criteria for ASRS-based probable adult ADHD.

Internal consistency of the ASRS v1.1 was assessed in both the full study sample in which the instrument was administered (N = 322) and, for comparison, the final ASRS-based probable adult ADHD analytical sample (n = 90) (Table 2). In the full sample, the total ASRS and both symptom domains demonstrated excellent internal consistency. Reliability estimates within the restricted probable-ADHD subgroup were lower for the total ASRS and Inattention domain but remained high for the Hyperactivity–Impulsivity domain. These coefficients should be interpreted in the context of the reduced response variability resulting from selection based on the ASRS symptom and classification criteria.

Table 2: Internal Consistency of the ASRS v1.1 in the Full Study Sample and Probable-ADHD Analytical Sample

ASRS scale/domain	No. of items	Full sample (N = 322), α	Probable-ADHD sample (n = 90), α
Full ASRS	18	.95	.74
Inattention	9	.93	.83
Hyperactivity–Impulsivity	9	.94	.94

Note. α = Cronbach's alpha. The probable-ADHD subgroup was restricted based on ASRS screening and symptom-domain criteria and retrospective symptom onset before age 12.

Data were analysed using IBM SPSS Statistics Version 27. Descriptive statistics, including frequencies, percentages, and 95% confidence intervals where appropriate, were used to summarise participant characteristics and estimate the prevalence and distribution of ASRS-based probable Adult ADHD symptom presentations.

Ethical approval for the study was obtained from the United States International University–Africa Institutional Scientific and Ethics Review Committee (ISERC No. USIU-A/ISERC/US1209-2025) prior to data collection. Research authorisation was subsequently granted by the National Commission for Science, Technology and Innovation (NACOSTI Permit No. 855839), and permission to conduct the study was obtained from the management of each participating rehabilitation centre. Written informed consent was obtained from all participants before enrolment. Participant confidentiality and anonymity were maintained through unique identification codes and secure data storage. The study was conducted in accordance with the ethical principles of the *Declaration of Helsinki* (World Medical Association, 2013).

Results

Participant Characteristics

The demographic and clinical characteristics of the 322 participants are presented in Table 3. The majority of respondents were aged 26–35 years, were male, and reported alcohol as the primary substance used. Most participants initiated substance use between 16 and 20 years of age, while just under half reported previous treatment for substance use disorders (Table 3).

Table 3: Demographic and Clinical Characteristics of Participants (N = 322)

Characteristic	n	%
Age group (years)		
18–25	56	17.4
26–35	142	44.1
36–45	83	25.8
46–55	22	6.8
≥56	19	5.9
Sex		
Male	218	67.7%
Female	104	32.3%
Marital status		
Single	187	58%
Married	86	27%
Separated	27	8%
Divorced	18	6%
Widowed	4	1%
Highest level of education		
Postgraduate	54	16.8%
Undergraduate	111	34.5%
College Level	99	30.7%
Secondary	55	17.1%
Primary	2	0.6%
No Formal Education	1	0.3%
Employment status		
Employed Full Time	127	39%
Employed Part Time	15	5%
Self-employed	80	25%
Unemployed	69	21%
Student	30	9%
Other	1	1%
Previous treatment for SUD		
Yes	150	46.6
No	172	53.4
Age at first substance use (years)		
≤15	104	32.3
16–20	149	46.3
21–25	51	15.8
>25	18	5.6

Distribution of Substance Use Among Participants

Substance use was common across multiple substance categories, with alcohol being the most frequently reported substance, followed by nicotine/tobacco, cannabis, and khat. Less frequently reported substances included cocaine, prescription medications, amphetamine-type stimulants, hallucinogens, opioids, methamphetamine, heroin, and inhalants (Table 4).

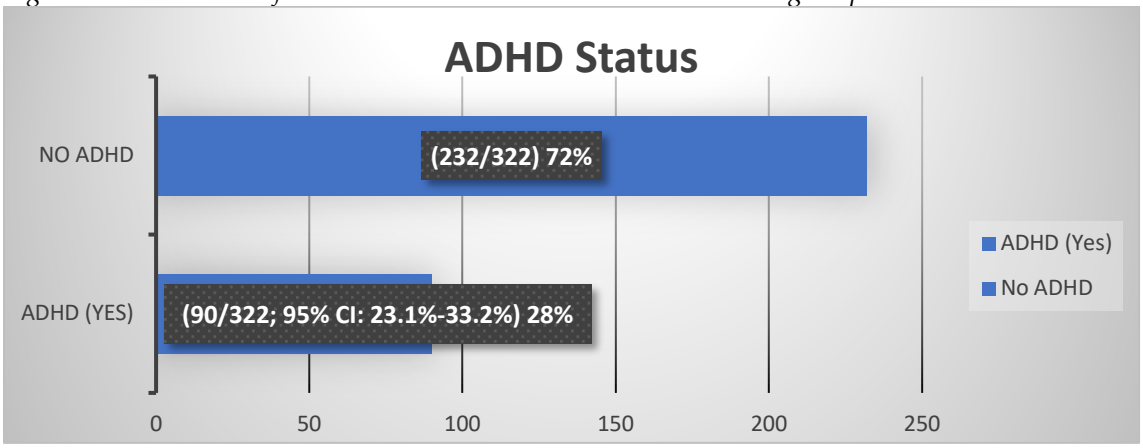
Table 4: Distribution of Substance Use Reported by Respondents

Substance	Frequency (n)	Percentage (%)
Alcohol	310	96%
Nicotine/Tobacco	184	57%
Cannabis	163	51%
Khat	116	36%
Cocaine	37	12%
Prescription Misuse	36	11%
ATS	21	7%
Hallucinogens	21	7%
Opioids	16	5%
Methamphetamine	14	4%
Heroin	13	4%
Inhalants	4	1%

Prevalence of ASRS-Based Probable ADHD Among Respondents

This section presents the prevalence of ASRS-based probable Adult ADHD among respondents, followed by the distribution of ASRS-based probable Adult ADHD symptom presentations within the subgroup of respondents who screened positive

Figure 1: Distribution of ASRS-Based Probable ADHD Status Among Respondents



Overall, 28.0% (90/322; 95% CI: 23.1%–33.2%) of respondents met the criteria for ASRS-based probable Adult ADHD, whereas 72.0% (232/322) did not (Figure 1).

Distribution of ASRS-Based Probable ADHD Presentations

Among the 90 respondents classified as having ASRS-based probable Adult ADHD, the combined symptom presentation was the most common, accounting for 58.9% (53/90; 95% CI: 48.0%–69.2%), followed by the predominantly inattentive presentation (26.7%, 24/90; 95% CI: 17.9%–37.0%) and the predominantly hyperactive–impulsive presentation (14.4%, 13/90; 95% CI: 7.9%–23.4%) (Table 2). Because these analyses were restricted to respondents who screened positive for ASRS-based probable Adult ADHD, the reported proportions describe the distribution of symptom presentations within this analytical subgroup and should not be interpreted as population prevalence estimates.

Table 5: Distribution of ADHD Presentations Among Respondents with ASRS-Based Probable Adult ADHD

ADHD Presentation	Frequency (n)	Percentage (%)	95% CI
Combined	53	58.9 %	48.0–69.2
Inattentive	24	26.7 %	17.9–37.0
Hyperactive–Impulsive	13	14.4 %	7.9–23.4
Total	**90**	**100.0 %**	**–**

Note. Percentages were calculated using the analytical sample of respondents classified as having ASRS-based probable Adult ADHD (N = 90). The 95% confidence intervals are exact (Clopper–Pearson) binomial confidence intervals. Symptom presentations were derived from responses to all 18 ASRS v1.1 items using the classification procedure described in the Methods and represent ASRS-based probable ADHD symptom presentations rather than clinically confirmed DSM-5-TR diagnoses.

Discussion

Prevalence of ASRS-Based Probable Adult ADHD Among Individuals with Substance Use Disorders

The present study found that 28.0% of respondents were classified as having ASRS-based probable Adult ADHD based on the study's screening algorithm. This finding indicates that positive ADHD screens were relatively common among adults receiving treatment for Substance Use Disorders in the participating rehabilitation centres. The estimated prevalence is consistent with previous research demonstrating elevated rates of ADHD among treatment-seeking populations. For example, Rohner et al. (2023) reported that approximately 21% of adults with SUDs met diagnostic criteria for ADHD, although prevalence varied according to the primary substance of use, diagnostic approach, and treatment setting. The slightly higher prevalence observed in the present study may reflect methodological differences, including the use of a validated screening instrument rather than a structured diagnostic interview, as well as differences in study populations and clinical characteristics. Beyond methodological differences, the consistently elevated prevalence of Adult ADHD among individuals with SUDs has prompted considerable research into the mechanisms underlying this comorbidity.

The high co-occurrence of Adult ADHD and SUDs has been explained by several complementary mechanisms. The Behavioural Disinhibition Hypothesis proposes that core ADHD features, including impulsivity, impaired inhibitory control, and executive dysfunction, increase vulnerability to the initiation and maintenance of substance use by reducing the ability to regulate behaviour and consider long-term consequences (Faraone et al., 2009; Young & Sedgwick, 2015). In addition, the Self-Medication Hypothesis suggests that some individuals may use psychoactive substances in an attempt to alleviate ADHD-related symptoms such as inattention, restlessness, or emotional dysregulation (Khantzian, 1997; Spera et al., 2020). Although the present cross-sectional study cannot evaluate these mechanisms directly, the elevated prevalence of ASRS-based probable Adult ADHD observed in this treatment-seeking population is consistent with the broader literature describing ADHD as an important psychiatric comorbidity among individuals with SUDs. These theoretical perspectives provide plausible explanations for the high rates of co-occurrence reported across treatment-seeking populations and support continued investigation of ADHD as an important psychiatric comorbidity among individuals receiving treatment for substance use disorders.

Evidence from Kenya demonstrates a similar pattern. Jenkins et al. (2015) reported an ADHD prevalence of 13.1% in a community sample, whereas Oigara (2022) reported a prevalence of 25.4% among adults receiving treatment for SUDs using the Adult ADHD Self-Report Scale (ASRS v1.1). The similarity between Oigara's findings and the present study suggests that Adult ADHD occurs at substantially higher rates within rehabilitation settings than in the general population. Collectively,

these findings support consideration of routine ADHD screening and appropriate clinical assessment among adults receiving treatment for substance use disorders.

ASRS-Based Probable Adult ADHD Presentations Among Individuals with Substance Use Disorders

The combined presentation was the most frequently observed ADHD presentation in the present study, followed by the predominantly inattentive and predominantly hyperactive–impulsive presentations. This pattern is consistent with findings reported in both epidemiological and clinical populations, where the combined presentation is typically the most prevalent among adults with ADHD (De Alwis et al., 2014; Liebrenz et al., 2016).

Although the combined presentation predominated across studies, previous research suggests that symptom presentations may differ in their association with substance-related outcomes. Liebrenz et al. (2016), for example, reported that while the combined presentation was most common, individuals with the hyperactive–impulsive presentation demonstrated the highest rates of substance dependence, highlighting the contribution of impulsivity to substance-related risk. Similarly, De Alwis et al. (2014) found stronger associations between hyperactive–impulsive symptoms and nicotine, cannabis, cocaine, and opioid use disorders. Together with the findings of the present study, these findings suggest that although the combined presentation is most frequently encountered in rehabilitation settings, impulsivity-related symptoms may contribute disproportionately to substance-related risk and severity.

From a theoretical perspective, these findings are consistent with the Behavioural Disinhibition Hypothesis (BDH), which proposes that impulsivity, poor inhibitory control, and novelty-seeking increase vulnerability to substance use and addiction. Individuals with combined and hyperactive–impulsive presentations may therefore be at greater risk of initiating and maintaining substance use because behavioural disinhibition limits their ability to regulate impulses and consider long-term consequences. The predominance of the combined presentation observed in the present study is consistent with the Behavioural Disinhibition Hypothesis, which proposes that impulsivity, poor inhibitory control, and novelty-seeking increase vulnerability to substance use and addiction. Within this theoretical framework, individuals exhibiting combined or hyperactive–impulsive symptom profiles may be particularly susceptible to substance-related risk because behavioural disinhibition can impair impulse regulation and decision-making. Although the present cross-sectional study cannot directly evaluate these mechanisms, the predominance of the combined presentation among respondents who screened positive for probable ADHD is consistent with this theoretical explanation.

Limitations

This study has several limitations that should be considered when interpreting the findings. First, Adult ADHD was identified using the Adult ADHD Self-Report Scale Version 1.1 (ASRS v1.1), a validated screening instrument, rather than a structured clinical diagnostic interview. Consequently, the findings relate to ASRS-based probable Adult ADHD and should not be interpreted as clinically confirmed ADHD diagnoses. Although the classification algorithm incorporated DSM-5-TR-aligned criteria, including symptom onset before 12 years of age and symptom domain thresholds derived from all 18 ASRS items, diagnostic confirmation and a comprehensive assessment of functional impairment were not undertaken. Second, the cross-sectional design provides an estimate of the prevalence and distribution of ASRS-based probable Adult ADHD symptom presentations at a single point in time and does not permit conclusions regarding the temporal relationship between ADHD symptoms and substance use disorders. Consequently, the findings should not be interpreted as evidence of causal associations.

Third, although participants were assessed after completing the initial detoxification phase of treatment (approximately two weeks following admission), information on withdrawal severity, exact time since last substance use, and duration of treatment beyond this period was not collected. Consequently, the potential influence of residual withdrawal symptoms, early recovery, or ongoing treatment on self-reported ADHD symptoms cannot be entirely excluded. Fourth, data were collected via self-report questionnaires, which may be subject to recall and social desirability biases. In particular, participants were required to recall childhood ADHD symptoms and age of symptom onset, which may have introduced inaccuracies in retrospective reporting.

Conclusion

The study concludes that ADHD symptoms are a significant co-occurring condition among individuals undergoing treatment for substance use disorders. The prevalence of ASRS-based probable ADHD (28%) indicates that more than one in four individuals in rehabilitation settings exhibit symptom patterns consistent with ADHD when assessed using DSM-5-aligned criteria. This prevalence is markedly higher than estimates reported in the general adult population, confirming that ADHD is substantially overrepresented within substance use treatment populations. Overall, the findings establish ADHD as a clinically relevant and prevalent condition within rehabilitation settings, underscoring the importance of its recognition as a key component in the assessment of individuals with substance use disorders.

Additionally, respondents classified as having ASRS-based probable Adult ADHD demonstrated heterogeneous symptom presentation profiles, with the combined profile being the most frequently observed, followed by the predominantly inattentive and predominantly hyperactive–impulsive profiles. These findings suggest that many respondents who screened positive for probable ADHD reported symptoms spanning both inattentive and hyperactive–impulsive domains, highlighting the heterogeneity of ADHD symptom expression within this treatment-seeking population. Because these presentation profiles were derived from responses to the full 18-item ASRS v1.1 following an initial positive screen, they should be interpreted as ASRS-based probable symptom presentations rather than clinically confirmed DSM-5-TR diagnoses. The predominance of the combined symptom presentation profile nevertheless suggests that comprehensive clinical assessment of both inattentive and hyperactive–impulsive symptom domains may be particularly important when evaluating adults who screen positive for ADHD in rehabilitation settings.

Based on these findings, rehabilitation centres should consider incorporating routine ADHD screening with the Adult ADHD Self-Report Scale Version 1.1 (ASRS v1.1) into admission assessments. Individuals who screen positive should subsequently undergo comprehensive clinical assessment using DSM-5-TR diagnostic criteria, conducted by appropriately trained mental health professionals, before any diagnostic or treatment decisions are made.

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