Neurodivergence and Substance Use

A Harm Reduction Perspective

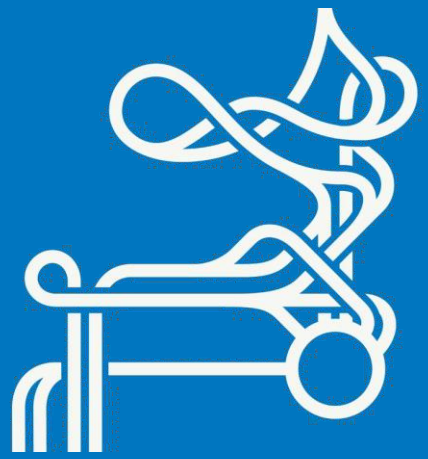
Harm Reduction International 2025

Emily Hughes

Te Puna Whakaiti Pāmamae Kai Whakapiri
New Zealand Drug Foundation

Neurodivergence-Kupu Māori

Aroreretini- 'attention goes to many things'.



Takiwātanga: "in his/her/their own time and space"

Te Puna Whakaiti Pāmamae Kai Whakapiri
New Zealand Drug Foundation

Neurodivergence: a brief overview

ADHD

- Neurodevelopmental disorder with childhood onset
- Presentations can be hyperactive, inattentive or both
- Common features include executive dysfunction, emotional dysregulation and impulsivity
- Functional impairments in brains neurotransmitter systems associated with dopamine
- Treated with stimulant medication (i.e methylphenidate) and behavioral interventions/support (i.e CBT)

ASD

- Neurodevelopmental disorder with childhood onset
- Symptoms exist on a spectrum (some presentations involve ‘severe impairment’, i.e non-verbal)
- Common clinical features include inflexible behaviors, difficulty with social cues, sensory processing difficulties
- Commonly co-occurs with ADHD. Other co-morbidities such as anxiety and OCD are also common
- Treated with psychosocial support, skill-building and behavioral therapy, among others

Neurodivergence report

In October 2024, we released a report on substance use and harm in people with ADHD and ASD.

This report included a literature summary, community insights and recommendations to help better understand the complex nature between neurodivergence and substance use

Te Puna Whakaiti Pāmamae Kai Whakapiri
New Zealand Drug Foundation

Neurodivergence report: key findings

ADHD

- As many as 50% of people with ADHD will meet the criteria for SUD in their lifetime
- 1 in 5 people with SUD meet the diagnostic criteria for ADHD
- People with ADHD are more likely to use drugs and more likely to develop harmful or problematic use than gen. pop
- Undiagnosed /untreated ADHD presents the highest risk for harms from substance use

ASD

- Diagnosis and treatment of SUD in people with ASD can be challenging
- People with ASD may be less likely to use substances in general, but are more likely to experience harms from their use
- People with ASD have high levels of attrition from traditional AOD treatment services
- Cooccurring ASD and ADHD as well as other mental health conditions is common, and can increase substance use behaviours

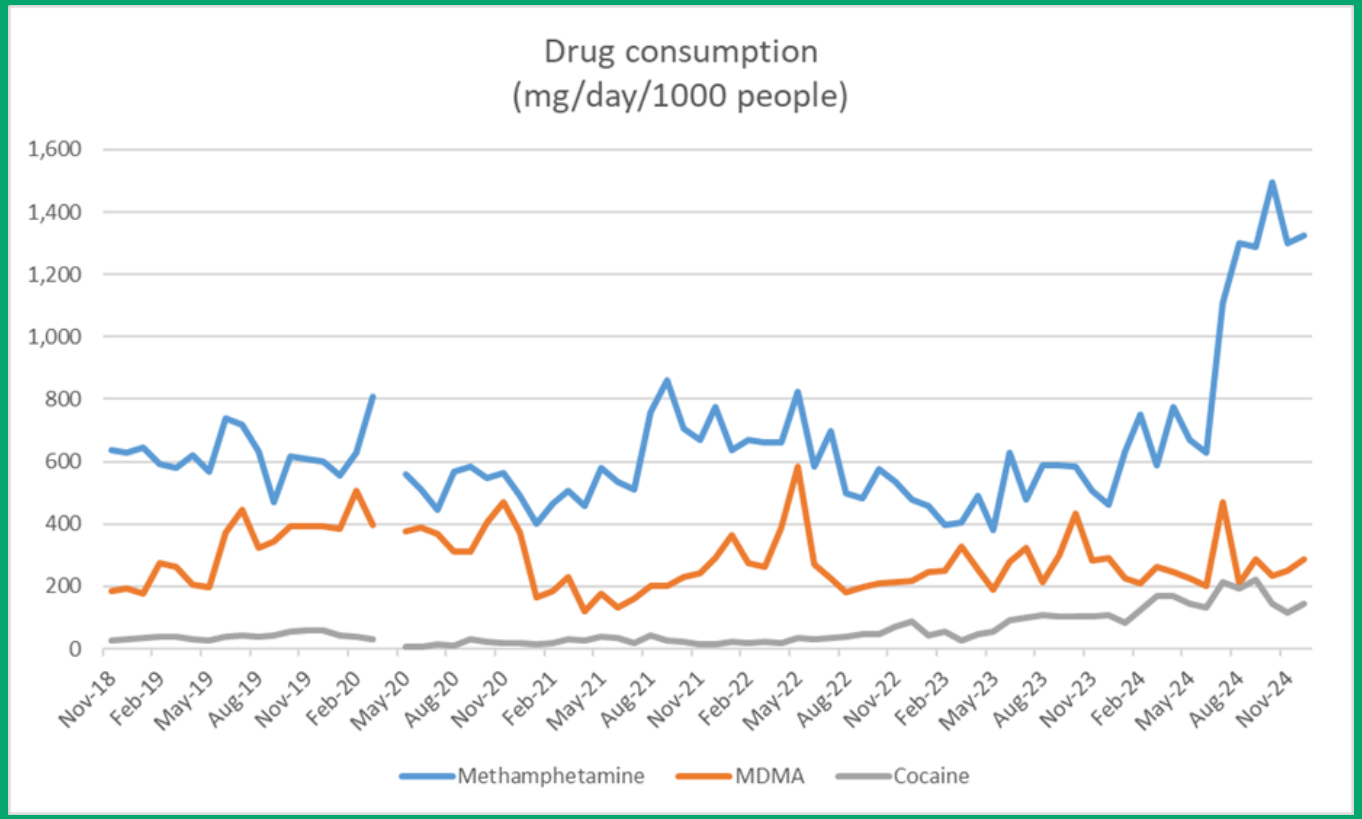
Te Puna Whakaiti Pāmamae Kai Whakapiri
New Zealand Drug Foundation

ADHD and Substance Use

In our report, we identified a clear relationship between ADHD and substance use and substance use disorders.

- Illicit stimulant use is common in people with ADHD. Associated with self-medication
- The concurrent treatment of ADHD and SUD is most effective. SUD intervention is unlikely to be effective when ADHD symptoms are unmanaged/untreated
- Appropriate pharmacotherapy with ADHD medications improve outcomes for SUD and overall health behaviors
- People who use drugs in New Zealand with ADHD symptoms report the diagnostic process to be inaccessible, stigmatizing and not suited to their needs

Illicit stimulant use in NZ



Community Insights: PWUD

ADHD

- Labeled as drug seeking when trying to access diagnosis and treatment
- Diagnosis/treatment cost prohibitive and inaccessible
- Many used substances as a way of helping manage their symptoms. Across a variety of substances
- Self reported higher levels of impulsivity and risk taking when it comes to drugs compared to their peers

ASD

- Self reported using substances as a social aid
- Also reported self medication across a variety of substances to help manage symptoms of ASD that were challenging such as sensory overload
- Co morbidities with mental health conditions extremely common and had considerable impact on SU behaviors
- Difficulty in obtaining diagnoses, especially when experiencing concurrent SUD

Experiences of Harm Reduction

ADHD

- Neurodevelopmental disorder with childhood onset
- Presentations can be hyperactive, inattentive or both
- Common features include executive dysfunction, emotional dysregulation and impulsivity
- Functional impairments in brains neurotransmitter systems associated with dopamine
- Treated with stimulant medication (i.e methylphenidate) and behavioral interventions/support (i.e CBT)

ASD

- Neurodevelopmental disorder with childhood onset
- Symptoms exist on a spectrum (some presentations involve ‘severe impairment’, i.e non-verbal)
- Common clinical features include inflexible behaviors, difficulty with social cues, sensory processing difficulties
- Commonly co-occurs with ADHD. Other co-morbidities such as anxiety and OCD are also common
- Treated with psychosocial support, skill-building and behavioral therapy, among others

Experiences of Treatment

ADHD

- Delayed gratification in residential services is not compatible
- Lack of interoception and sensory overwhelm can make restrictive treatment environments unbearable
- Alternative models can be effective (i.e Speedfreaks)
- Treating SUD before initiating psychostimulant therapy does not work (but is standard practice in NZ and in many places in the world)
- Chronic under diagnosis of ADHD in PWUD (esp. in indigenous, women and gender diverse, disabled people....)

ASD

- Sensory overwhelm is common- particularly in group services
- SUD screening tools are not fit for purpose for ASD
- Reflections on substance use, impacts and goals may not fit into traditional recovery models
- Substance use can obscure timely diagnosis and support for ASD - particularly in high masking individuals, women, indigenous...
- Lack of staff knowledge in AOD sector means that attrition from service is very high Peer services for ASD and SUD are imperative - but very scarce

Experiences of Harm Reduction

ADHD

- Services need to be available here and now, planning can be challenging (think drug checking, NSP)
- It can also be burdensome to manage rigorous schedules for interventions like MAT (or substitution therapy)
- Education on the interaction between illicit drugs and psychostimulant medicines is key.
- Accessing treatment **whether or not** someone is using drugs. The number one predictor for positive health and psychological outcomes

ASD

- Harm reduction services and spaces can often be very overwhelming. Low sensory environments are key
- Simply stopping substances that have a utility in managing symptoms is not always the best choice for people, particularly in the absence of other treatment or support.
- Peers that intimately understand the intersection between ASD and SU/SUD help to provide nuanced care.
- Information and advice should be offered in a variety of modalities to suit a persons needs

Ngā mihi nui

Thank you very much!

Drop us a line at Emily.Hughes@drugfoundation.org.nz

WhatsApp +64 27 2534818

Te Puna Whakaiti Pāmamae Kai Whakapiri
New Zealand Drug Foundation