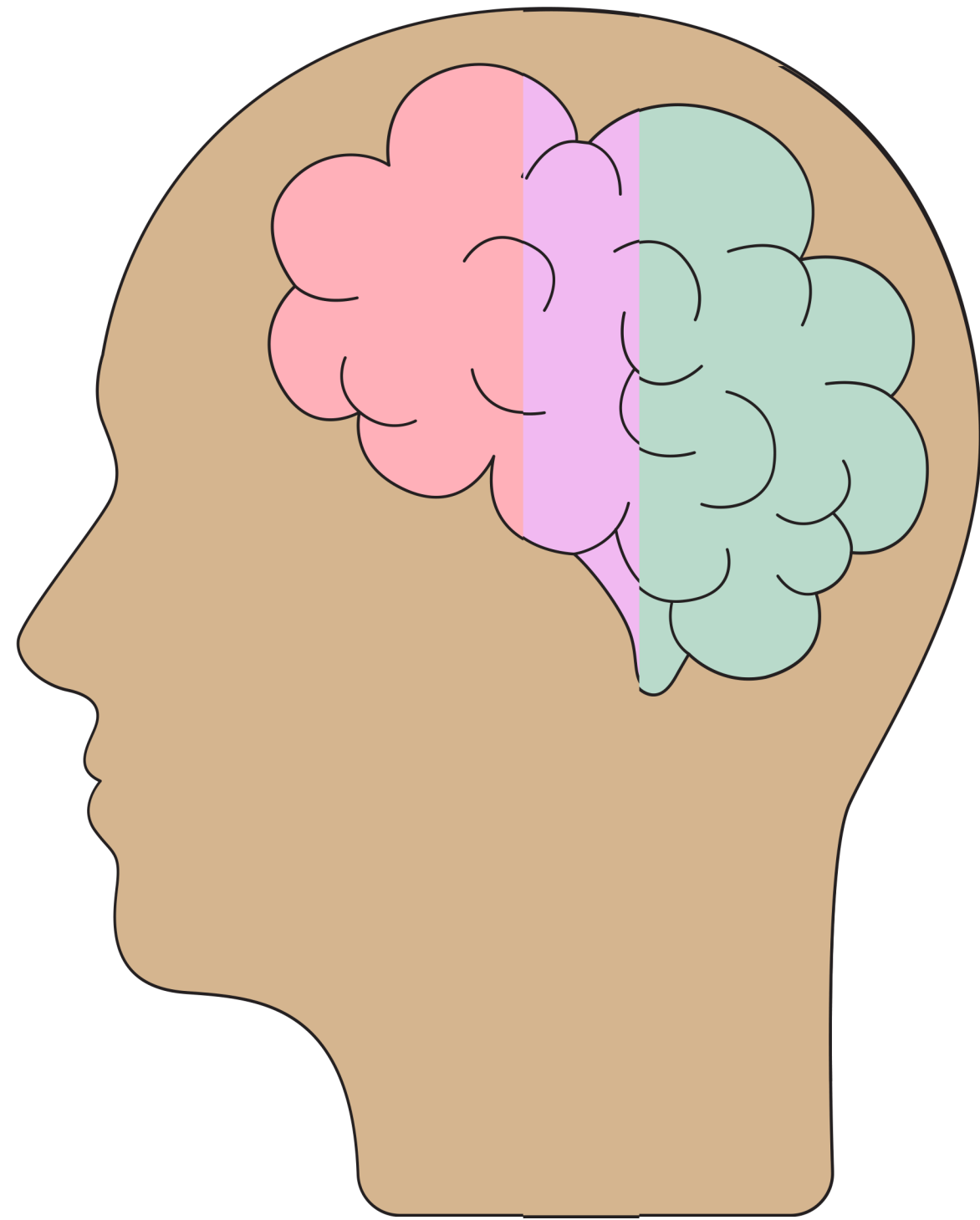


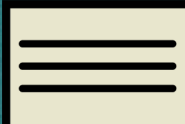
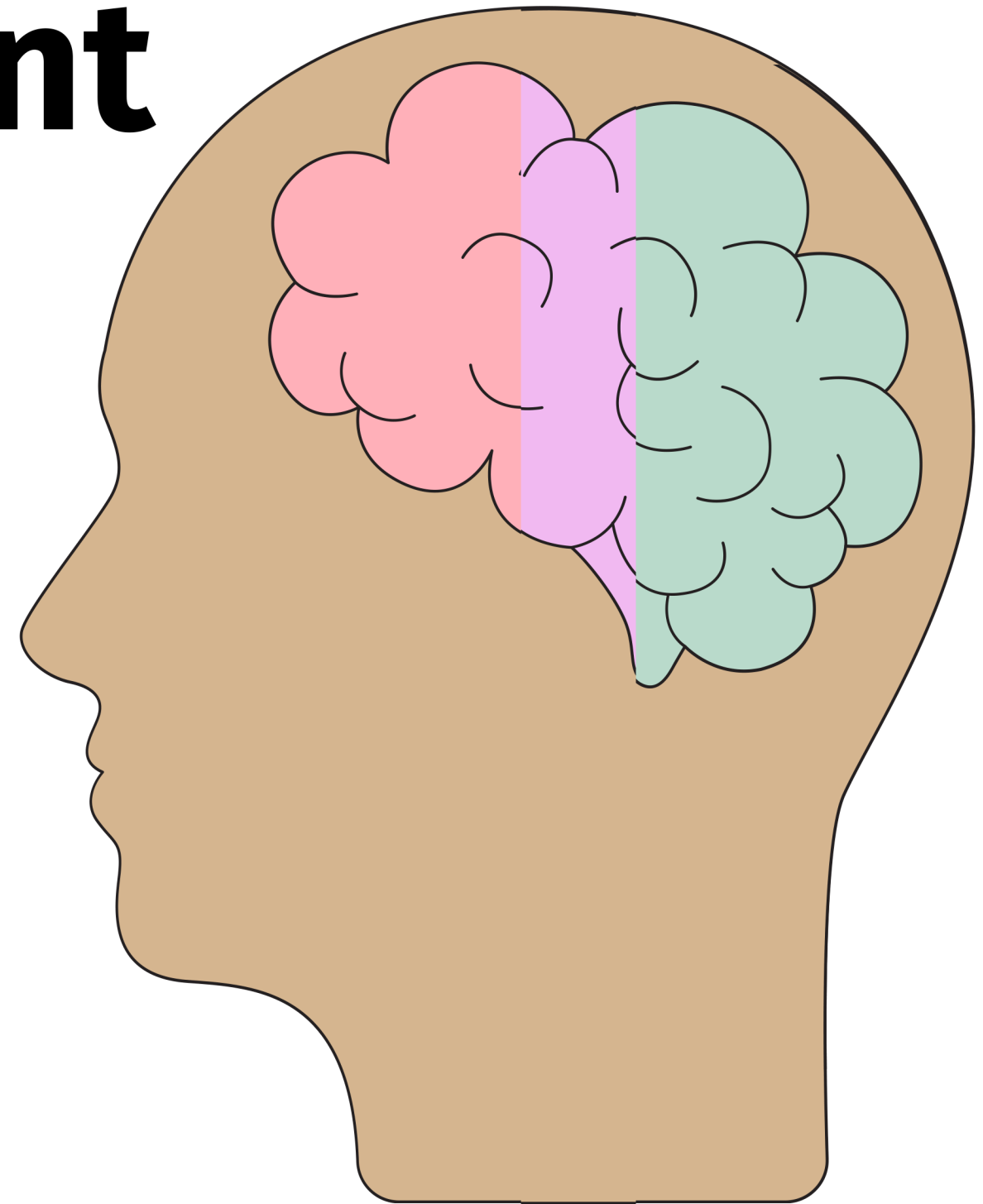
NEURO nexus

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Disclosure Statement

- *No disclosures to report*



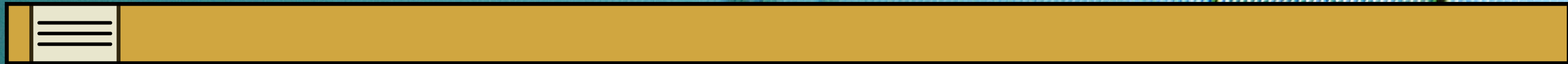
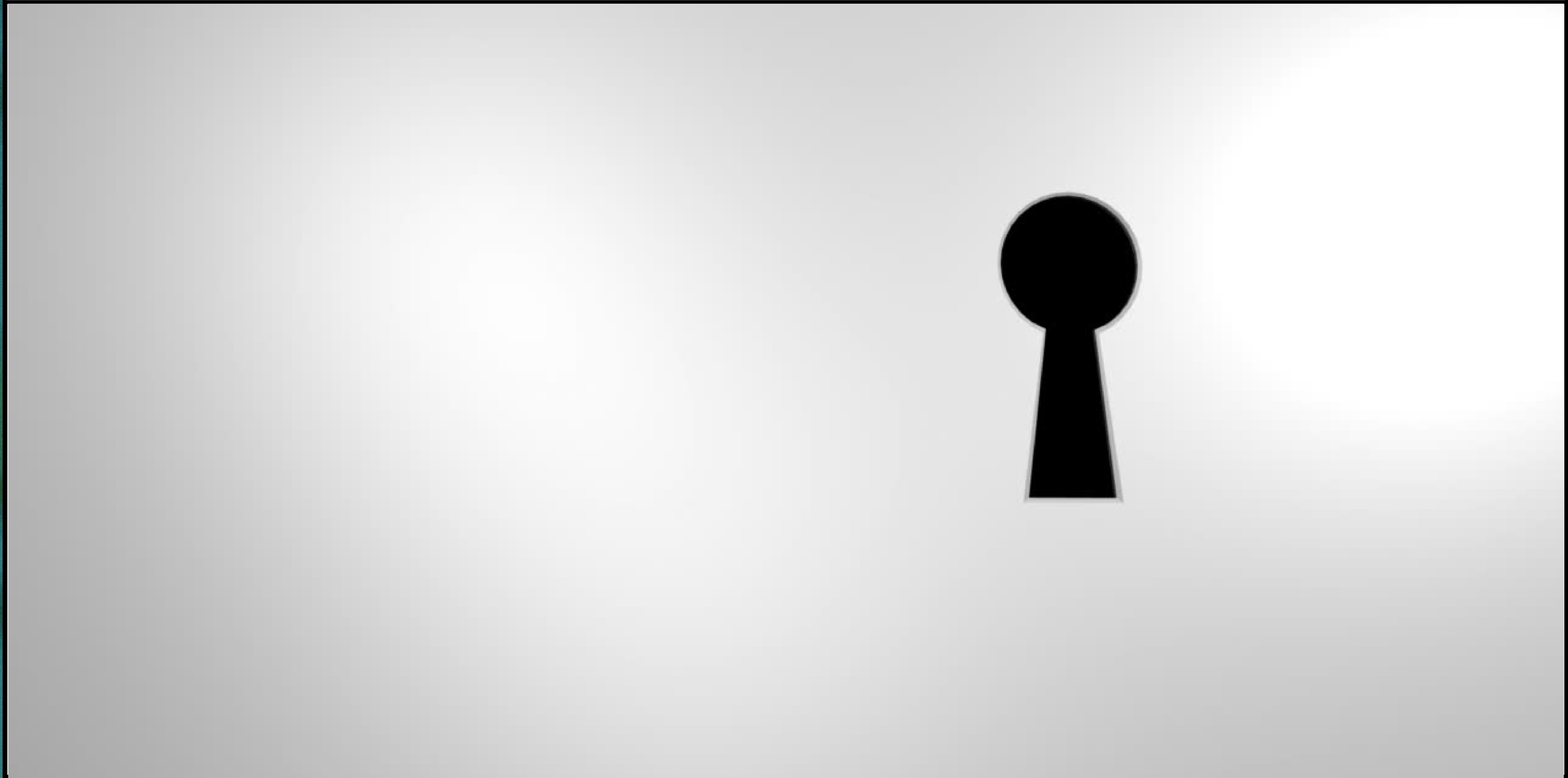
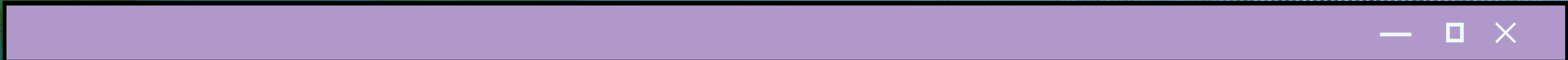
Social Worker
Consultant
Counsellor
Researcher
Advocate
Advisor

PROFESSIONAL



Neurodivergent
Autistic
ADHD Mixed Sub Type
Advocate
Advisor
Lived Experience

PERSONAL



Session Overview

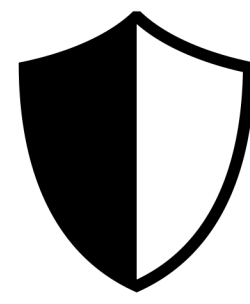


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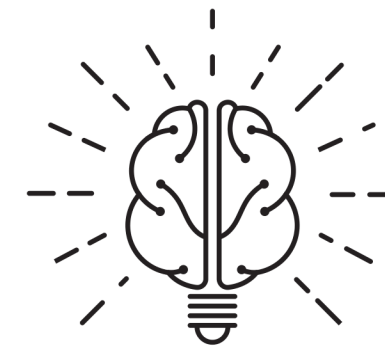
Neurodivergence-Substance Use Nexus

02



Risk, Resilience, and the Dual Perspective

03



Impacts and Application

Neurodiversity

Nervous System Uniqueness



- All brains are unique, giving rise to a wide range of skills and abilities
- People experience and interact with the world in highly diverse ways
- There's no universally "correct" way of thinking, learning, or behaving
- Naturally occurs in humans due to genetic variations and differences
- Emphasizes the recognition and acceptance of individuals with diverse characteristics and behaviors
- Neuro-differences are acknowledged and valued as a social category, similar to differences in ethnicity, sexual orientation, gender, or ability

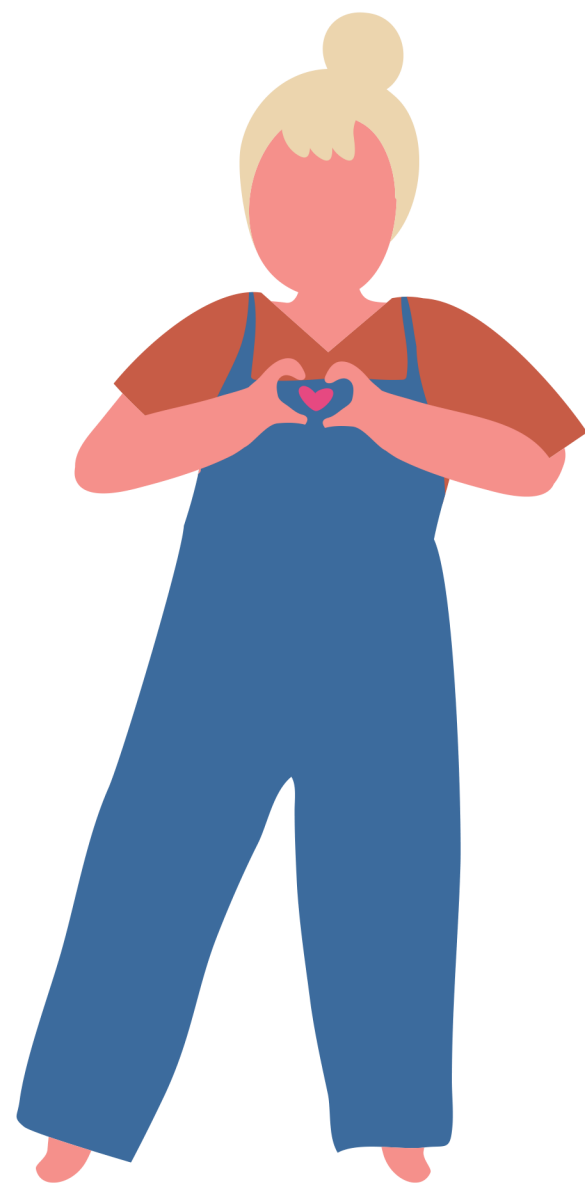


Neurodivergence

- Variations in neurological functioning
- Differences associated with learning, processing, interpreting, and feeling
- Diversity, not deficiency: Shifting the perspective from seeing differences as problems.
- Condition, not disease: Emphasizing that neurodivergence is not an illness.
- A balanced perspective: Recognizing both the strengths and challenges



Neurodivergent



a way to describe an individual who diverges from the dominant societal standards of “normal” neurocognitive functioning. They think and learn differently compared to those who are neurotypical.

“It is powerful to realize that neurodivergence has to do with how someone’s brain is structured and functions, it’s a part of the variability in humans and life and it makes life on earth exciting and interesting and beautiful,”

The Neurodivergent Umbrella

**Neurodevelopmental*

Attention Deficit

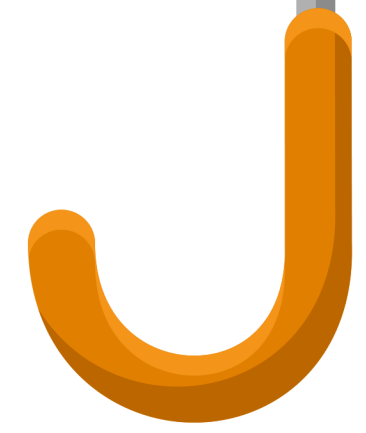
Hyperactivity Disorder
(ADHD)

Dyslexia

Autism

Dyspraxia

Tourettes



NON-EXHAUSTIVE LIST INCLUSIVE TERM

used to describe a group of conditions that are associated, as a result of variations in mental functions

estimated that between 15 to 30 percent of people worldwide are Neurodivergent but in reality, this figure could be much higher.

Neurodiversity

how each person's brain develops differently, and how these differences impact how each of us thinks, feels, behaves, and perceives the world around us.

Neurodivergence

describes the variations within the neurological function and the deviation from the "norm" that results in differences associated to learning processing, interpreting, feeling, etc

Neurodivergent

An individual who thinks and learns differently than the "societal standard", with differences extending to processing, interpreting, and feeling.

Neurotypical

individuals whose neurological development and functioning are consistent with what's most common in the general population.

Neurodiverse

A group of people where some members of the group are neurodivergent.

Use of Language

Neurodiversity advocates encourage inclusive, nonjudgmental language

Person-First



patient is a person first and that they are living with their condition/disability.

Identity-First



patient's condition/disability is placed first in the description, as it is part of their identity



Autism and ADHD

Intersections in Neurodevelopmental Neurodivergence

- Neurodivergent conditions have multifaceted implications.
- our lens focuses primarily on ADHD and Autism
 - given their overlap and prevalence
- provide distinct lenses through which we can explore human cognition, behavior, and experience
- fascinating space where they intersect and overlap, especially when exploring substance use health.

ADHD (Attention-Deficit/Hyperactivity Disorder)

Characterized by consistent patterns of inattention, hyperactivity, and impulsivity
Impacts executive functioning
time management, organization, and self-regulation

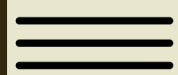
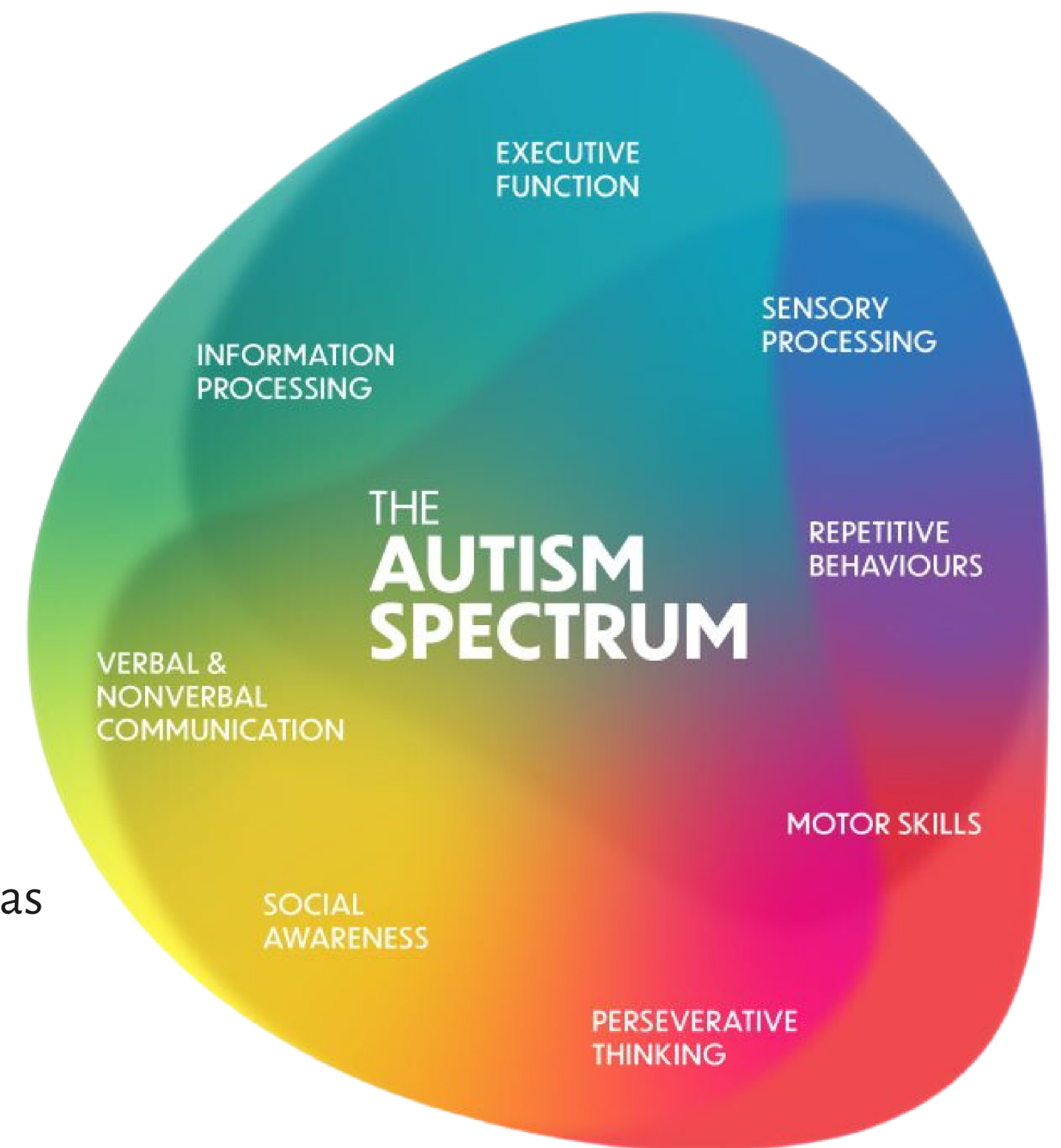
Autism Spectrum Disorder (ASD)

neurodevelopmental condition that affects social communication, interaction, repetitive behaviors
Individuals may also experience unique strengths, passions, and sensory sensitivities/differences

Autism is understood to be a spectrum of experiences

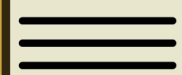
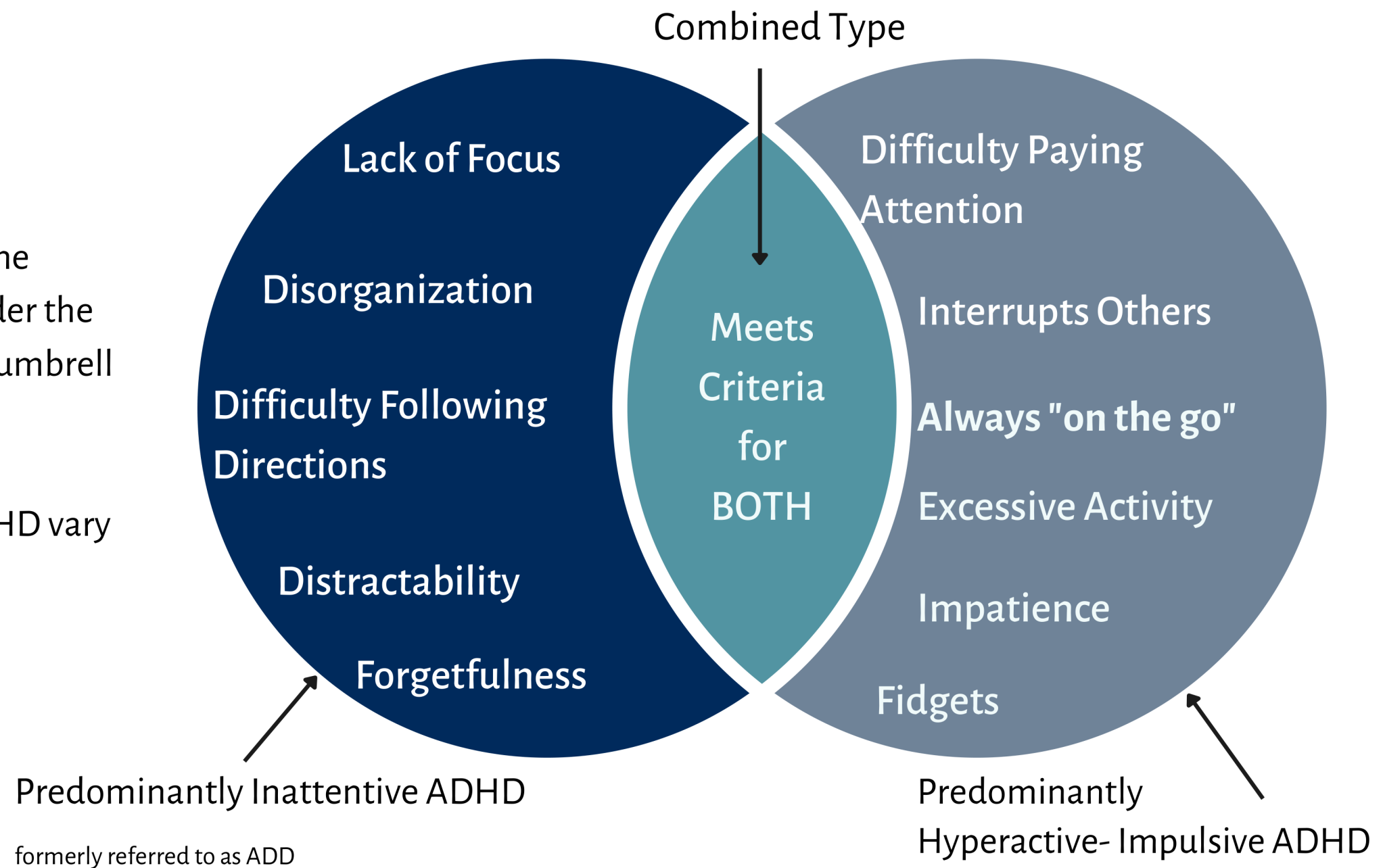
emphasizes the uniqueness of each Autistic persons experience

- not a straight line from
 - 'less autistic' to 'more autistic'
- not described as high to low functioning
- refers to how an autistic person functions in each of the eight areas

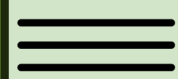
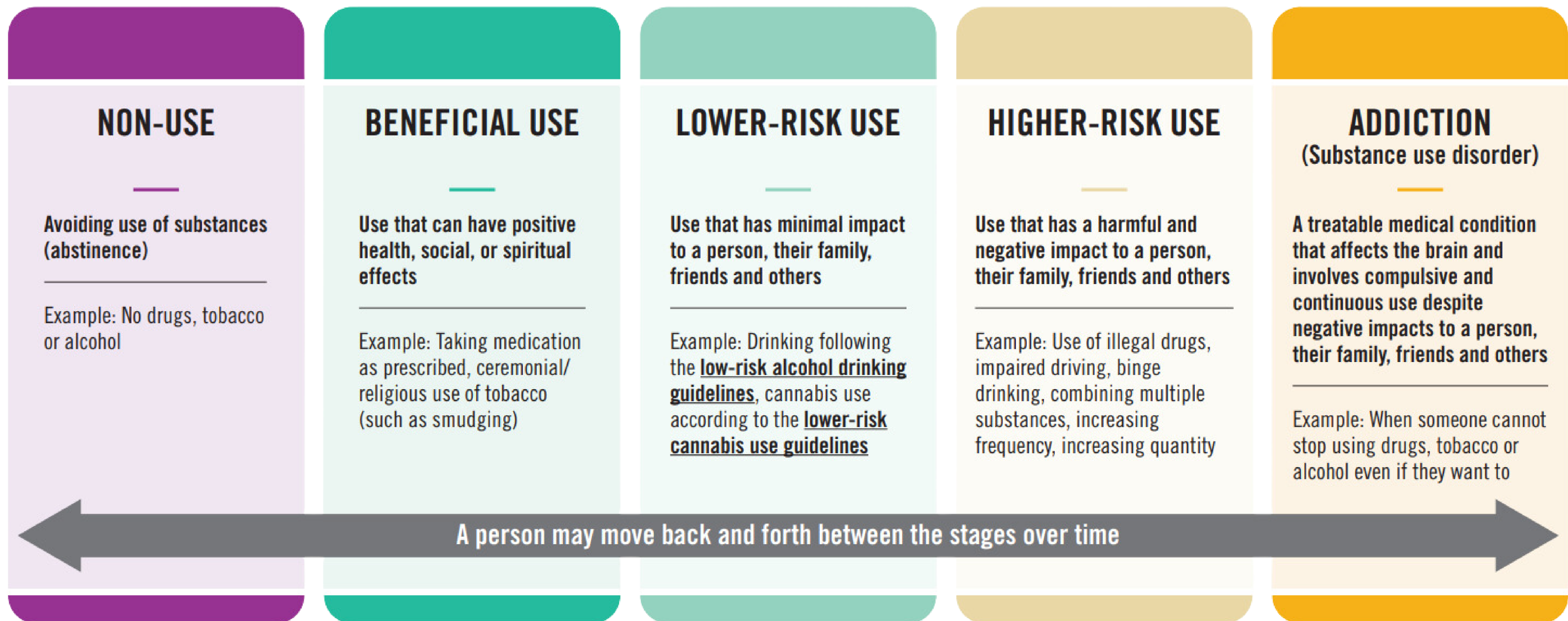


Attention Deficit Hyperactivity Disorder

- Recent changes to the DSM combined the previous ADHD and ADD diagnoses under the Attention deficit hyperactivity disorder umbrella
 - 3 classifications
- The symptoms and development of ADHD vary from person to person



Spectrum of Substance Use Health



High-Risk Substance Use & Addiction

Through the Lens of Neurodivergence

High-Risk Substance Use

Substance consumption patterns that carry elevated risks for harm to self and others

Addiction

Chronic, relapsing brain disease characterized by compulsive drug seeking and use despite harmful consequences

Biopsychosocial Framework

complex interactions among brain circuits, genetics, environment, and individual's life experience



Current Research Findings

Correlation & Comorbidity

Robust correlation observed between neurodivergence and addiction

Risk twice as high for high risk substance use when compared to their neurotypical peers

High-Risk Groups

Dual diagnosis Individuals diagnosed with both Autism and ADHD present the highest susceptibility

These individuals demonstrate elevated levels of nicotine, alcohol, and cannabis use disorders

ADHD & Addiction

Meta-analysis reveals that 25% of patients with a Substance Use Disorder (SUD) meet adult ADHD criteria

For those diagnosed with ADHD, reported high-risk substance use or dependence spans:

Alcohol: 17% - 45%

Other substances: 9% - 30%

Limitations and Gaps in Research

Ableism

Overarching discriminatory practices and attitudes

Stereotypes

Perceived as rule-driven, rigid, and socially avoidant

Child-Centered Narrative

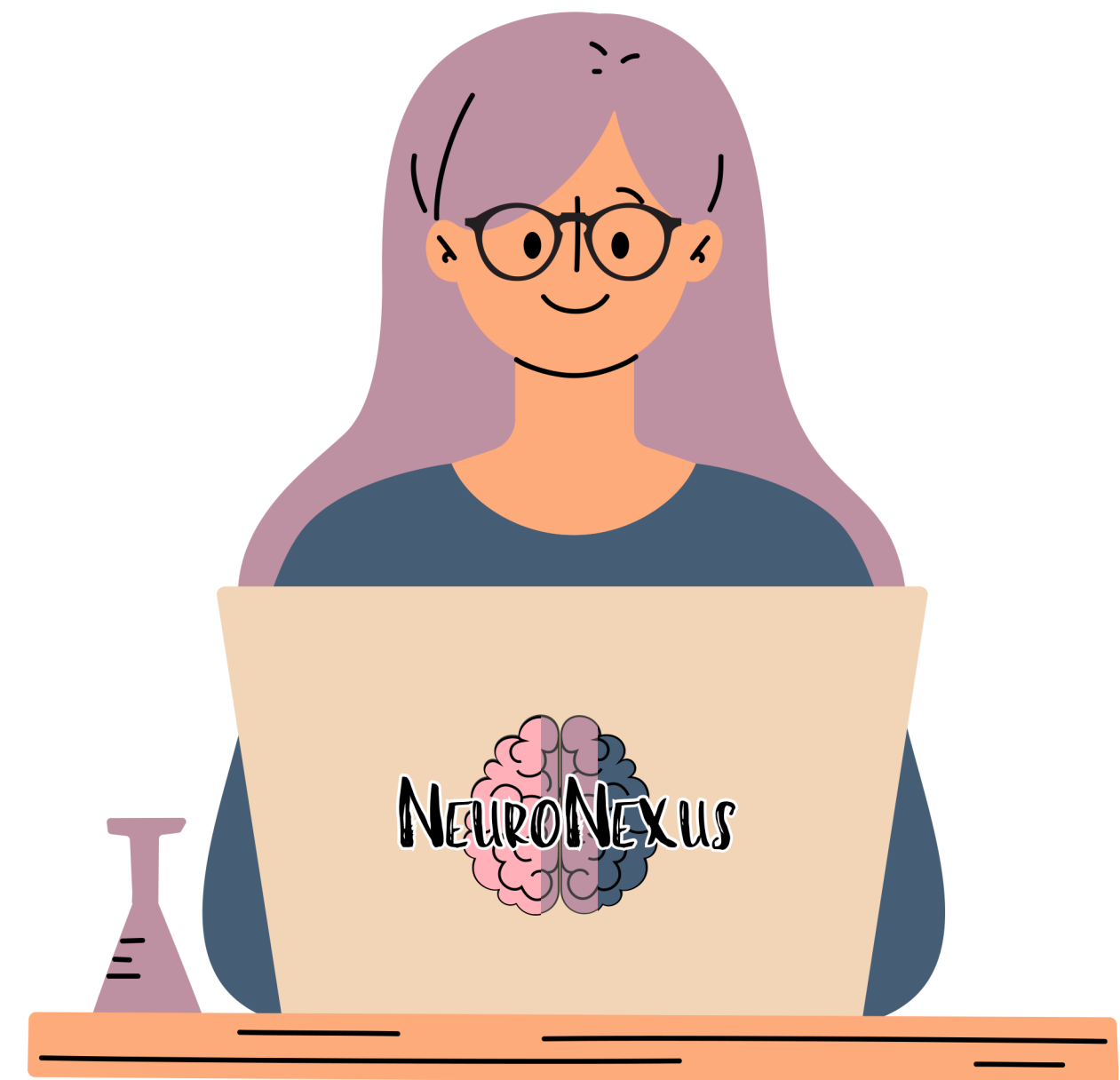
A focus primarily on pediatric neurodivergence

Demographic Bias

Limited representation

Stigma & Avoidance

Contributing to demographic biases and underserved populations



Biological Impacts

Neurodivergence and Substance Use Health

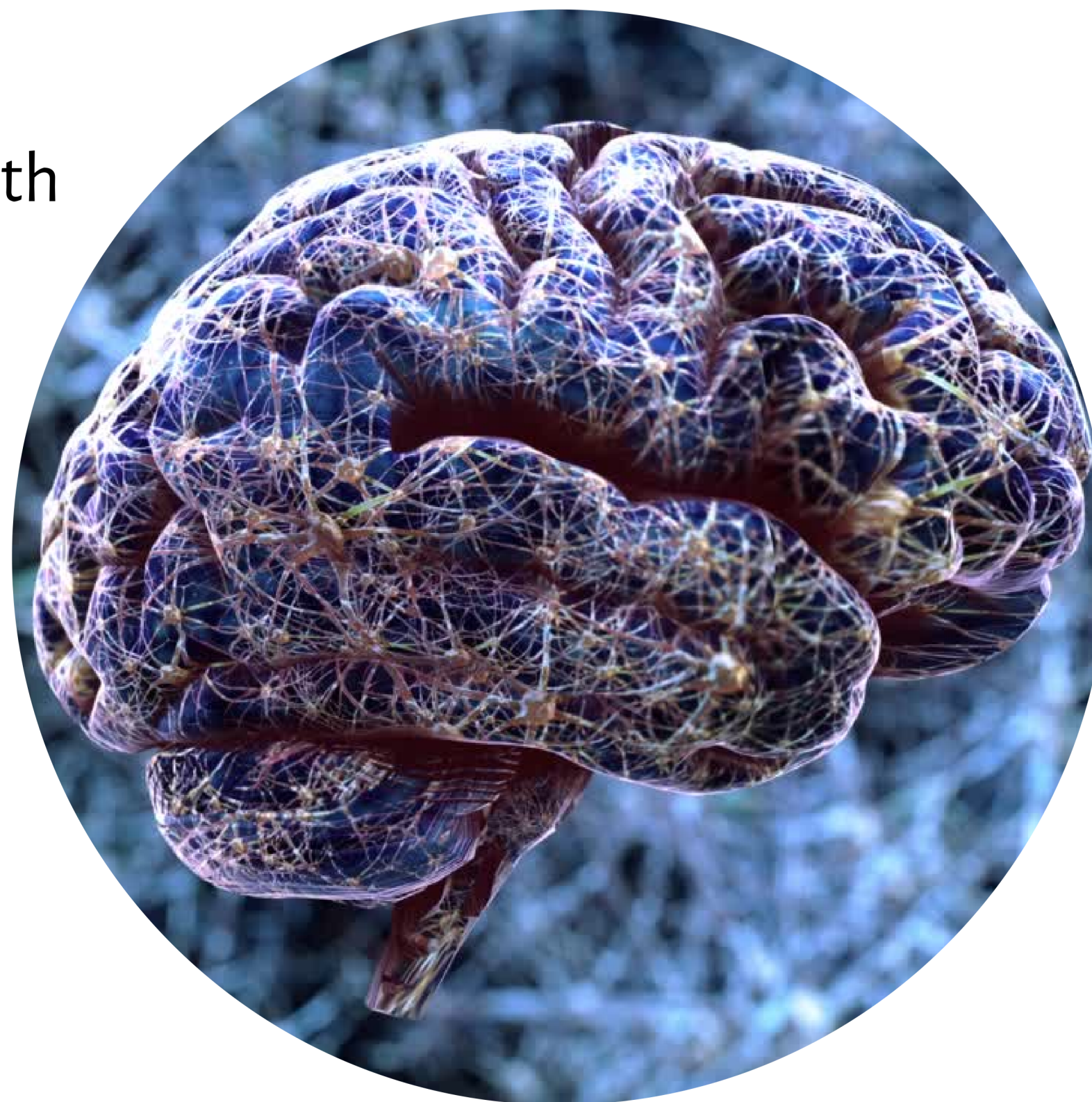
Underlying Predispositions

Reward System Dysregulation

Genetic Connections

Brain Structure Variances

Neuroadaptation and Tolerance



Biological Impacts

Substance Effects and Implications



Stimulants

- Pharmaceutical: Appropriate ADHD medication reduces substance use related risks
- Recreational: Stimulants such as caffeine and cocaine can be perceived as enhancing productivity; reinforcing continued use

Depressants

- Pharmaceutical: may offer relief from specific symptoms
- Recreational: Alcohol and other depressants may induce feelings of relaxation, in addition to symptomatic relief.

Socio-Environmental Impacts



- Isolation
- Trauma
- Community Disconnect
- Challenged Relationships
- Insecurity
- Social Discomfort/Anxiety



- Isolation
- Intensive Support
- Rule Adherence
- Attention to detail
- Creativity
- Unique perspectives



Neurodivergence, Substance Use, and Trauma

An Intertwined Nexus

- Neurodivergent Vulnerabilities
- Trauma as a Precipitant
- Protective Factors in Neurodivergence



Diagnosis

failure to identify and understand Neurodivergent clients may contribute to a worsening of their symptoms and/or an increase in concerns related to substance use and/or gambling

Criteria for a wide range of mental disorders

Pathologized and deficit based

Limitations

Barriers

Access to Services

- Inclusion
- Exclusion



Characteristics and Observable Behaviors

not a one-size-fits-all analysis, but rather an overarching look into tendencies

Sensory

Habitual Behaviors

Focus

Impulsivity/Novel Experiences

Executive Functioning

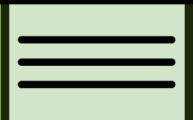
Creativity

Unique perspective

Attention to detail

“It seems that the same regions that gave me my intense curiosity, obsessive focus, and ability to learn and memorize quickly also made me vulnerable to discovering potential bad habits and then rapidly getting locked into them”

(2016, p63).



Substance Use as Coping Mechanism

Self-Medication Motives

- Achieve balance & avoid unpleasant feelings
- Desires to "feel normal", stop overthinking, gain confidence
- Numb negative emotions or mitigate symptoms

"My ADHD made me viscerally uncomfortable. I felt like I was crawling out of my skin"

Social Adaptation:

- Use of substances to "take the edge off" and/or reduce social anxieties
- a form of autistic masking

"I drank because I was socially awkward, then got sober and discovered I'm autistic."



Masking

to disguise or suppress specific autistic traits or behaviors in social situations

Impact on diagnosis

“Social survival”

Challenges in novel or unsupported situations

“The cost”

- constant strain and inauthenticity of masking is an exhausting and corrosive psychological burden

Escape from Pressure

Sensory Relief

Social Facilitation



Fragmented Care

Challenges in Neurodiverse Healthcare Provision

Systems operate in **silos**, with disjointed service provision

- Neurodevelopmental,
- Psychiatric and Mental Health,
- Addictions

Limited **collaboration** between sectors

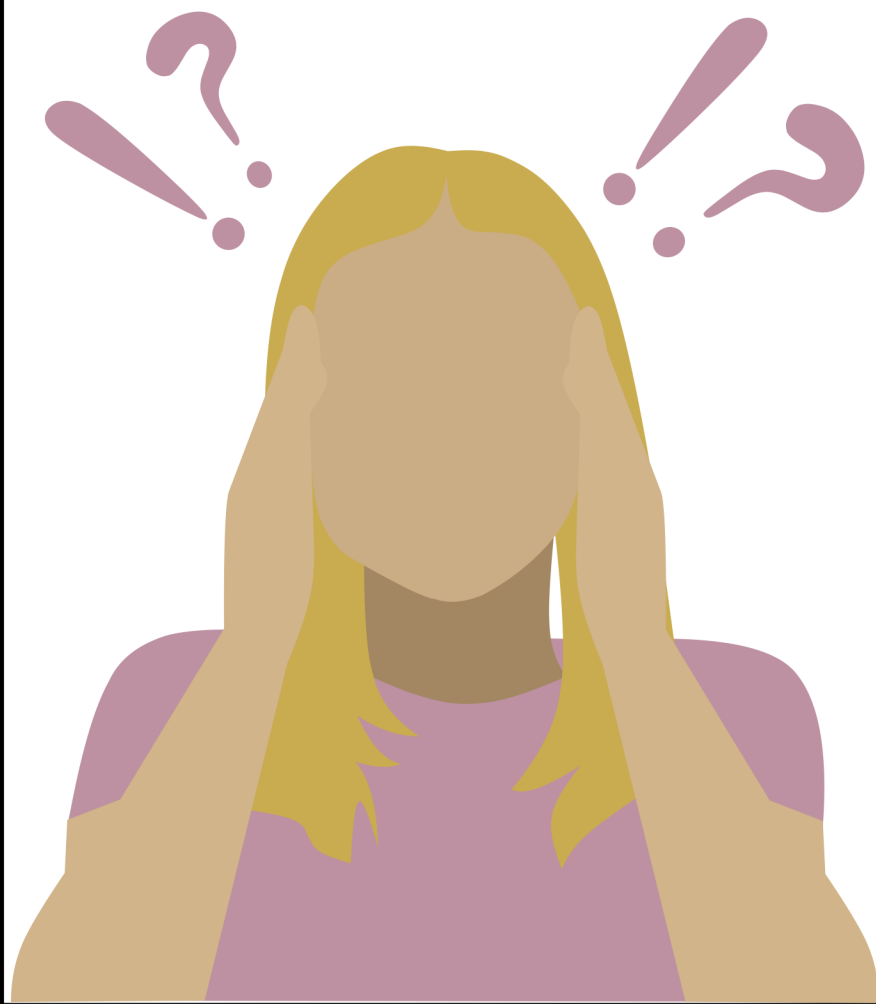
Neurotypical-focused substance use health services

- rigid rules and group settings, can **amplify anxieties**
- often results in misinterpretations, where genuine **frustration** is perceived as defiance



The Consequences

of Fragmented Care for Neurodivergent Individuals



Misdiagnosis: Misunderstanding unique Neurodivergent challenges and strengths

Mistreatment: Implementing inappropriate interventions

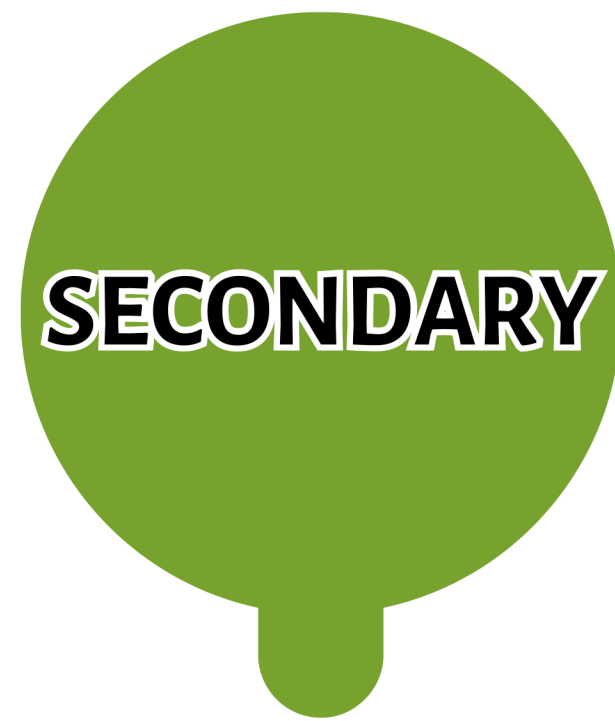
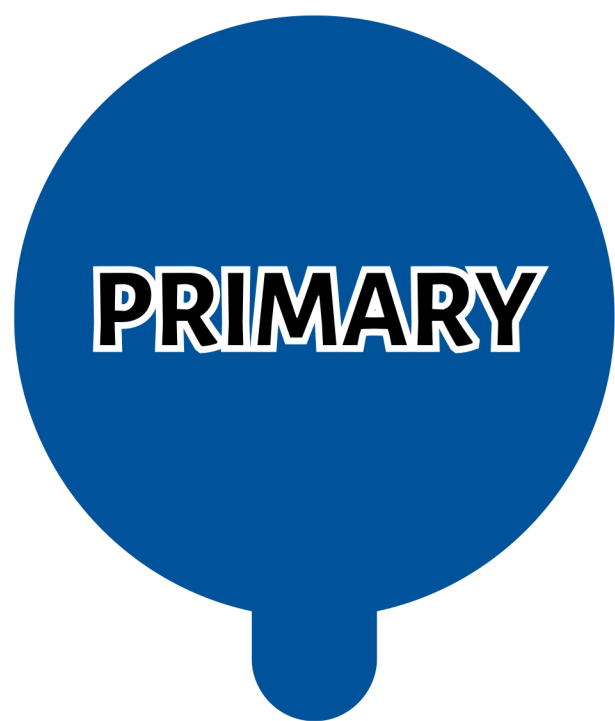
Increased Vulnerability: Overlooking potential substance use health risks, such as using substances as coping mechanisms



Neurodivergence & Substance Use Health

Prevention Framework

Exploring the link between neurodivergence and substance use health can guide effective prevention strategies across the three pillars of prevention



Proactive Approach

Strategies that **prevent the onset** of substance use or halt the progression to high risk use/addiction.

Educate the public, families, and neurodivergent individuals about the **risks and potential consequences** of substance use, tailored to their unique **experiences and vulnerabilities**.

Example:

Hosting awareness campaigns highlighting the potential risks of substance misuse for those with ADHD, emphasizing how substances might interact with their neural pathways differently.

PRIMARY

SECONDARY

Early Identification

Targeted interventions for individuals showing early signs of high risk substance use, but haven't yet developed addiction (dependence).

Rapid **screening** and brief interventions tailored to neurodivergent experiences. Emphasis on **understanding** triggers or reasons behind substance use.

Example:

Developing a **toolkit** for teachers or caregivers to identify early warning signs of in and offering them guidance on immediate interventions.

SECONDARY



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TERTIARY

Minimizing Impact/Improving Outcomes

Strategies to **reduce the more serious effects** and assist in accommodations, rehabilitation and recovery.

Personalized therapy and treatment plans that respect and understand the unique Neurodivergent experience. Emphasis on co-existing conditions.

Example:

Offering a dual-diagnosis treatment program that addresses both Neurodivergent conditions and substance use disorders, ensuring a holistic approach to recovery.





Comprehensive Individualized Dual Diagnosis Approach

Complicates the diagnosis, treatment, and prognosis

Comorbidity is the **rule, not the exception**

Care based needs identified through **collaboration** with client

Needs are addressed **simultaneously**

Neurodivergent clients present with **distinct care needs**



The Philosophy of Neurodivergent-Informed Therapy

Overarching treatment philosophy

NOT a specific set of interventions that clinicians follow

Profound impact of the **individual's experience**

Accommodation as opposed to cure

Co-designed with clients: Identify unique challenges, set goals, monitor progress, and continually adapt



Other Important Considerations & Suggestions



Sensory Conscious Space



Use of Clinical Tools (scales) and providing notes/documentation



Additional focus for Self Monitoring



Group Vs. Individual



Communication Styles



Continuing Education

- Neurodiversity-Affirming Therapy



Session Summary

Neurodivergence and Substance Use Nexus

- Neurodiversity: Diverse conditions (ADHD, Autism, Dyslexia, etc.).
- Key Terms: Neurodivergence, Neurodivergent, Neurotypical, Neurodiverse.
- Substance Use: Impact on patterns and risks.

Risk, Resilience, and Dual Perspective

- Predispositions: Genetics, brain structure, neuroadaptation.
- Impacts: Effects of stimulants and depressants.
- Socio-Environmental: Trauma, isolation, social challenges.

Impacts and Application

- Challenges: Fragmented care, misdiagnosis.
- Prevention: Primary, secondary, tertiary strategies.
- Therapy: Dual diagnosis, neurodivergent-informed.
- Philosophy: Neurodiversity-affirming practice.

Moving Forward

- Education: For healthcare providers.
- Collaboration: Integrate neurodevelopmental, psychiatric, addiction services.
- Support: Inclusive, tailored systems.

