
Treating Co- Occurring Disorders

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Disclaimer & Disclosure

The information contained in this course can change as we learn more about the brain and the ways it is impacted by the environment, trauma, medications, substances of misuse, and other things

Always follow the guidelines of your agency, ethical and legal standards of your certifying Board, best-practice methods; local, state and Federal laws as well as your judgement and commonsense when working with clients

I disclose that I am not receiving any financial support from any agency, individual, institution or company other than your organization for this course

Objectives

Explain

Explain the basic neurobiology of addictive chemicals

Describe

Describe the signs and symptoms of substance intoxication, and distinguish withdrawal syndromes for opioids, stimulants, alcohol, and cannabinoids

Understand

Understand the interaction between SUD and mental illness

Analyze

Analyze medication-assisted therapies for opioid use disorder

Program Outline

I. Introduction

II. The Neurobiology of Addiction

III. Notable Substances of Use

IV. Co-Occurring Disorders

V. Harm Reduction Strategies

VI. Medications for Opioid Use Disorder



I. Introduction

Language

I believe in using “Person-Centered language” as much as possible, thus:

- Not “Addict,” but **Person who uses drugs** or **Person with a substance use/behavioral disorder**
- Not “Addiction,” but **Substance Use Disorder (SUD)**
- Not “Abuse,” but **Use**
- Not “Clean,” but **In Recovery** or **Testing Negative**
- Not “Dirty,” but **Testing Positive**
- Not “Relapse,” but **Return to Use**

At the same time, out of habit, I may inadvertently use some of these older words/terminology—and some of the sources I quote use older terms

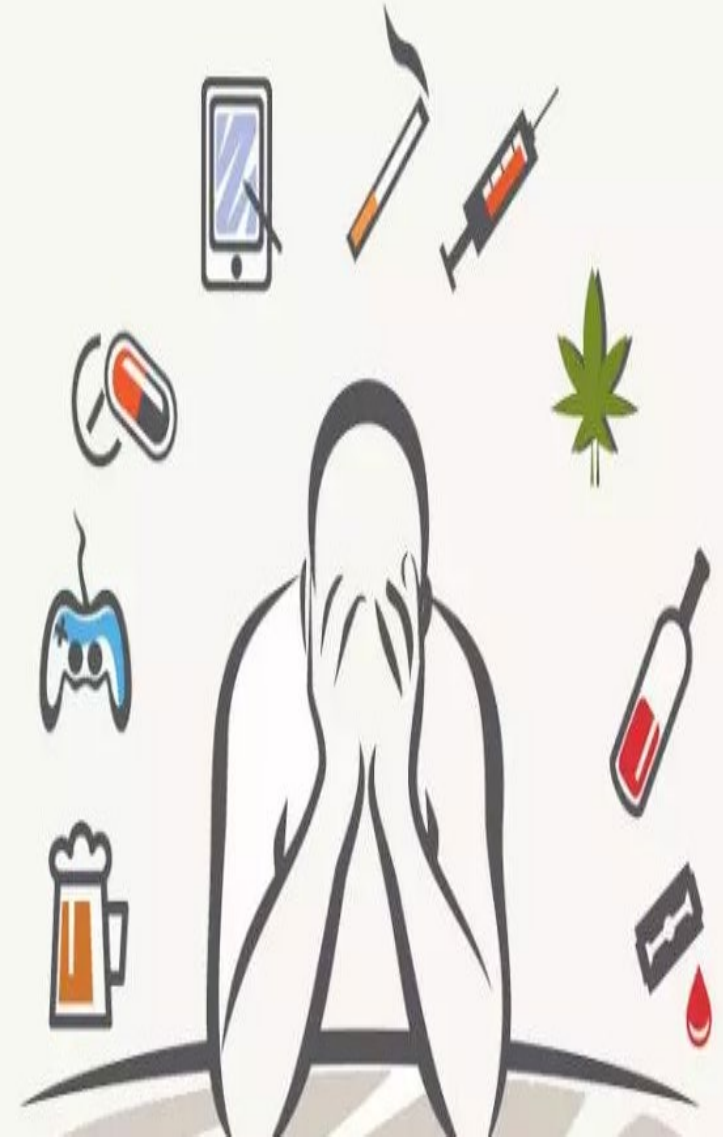
Be cognizant that some people may describe themselves as “alcoholics,” “junkies,” etc., or may refer to “clean time” as how long they have been in recovery (and we need to respect this)

Two Important Things You Must Do Before Working with any Client

- I. You must care!** You must like people in general regardless of their circumstances, behaviors or opinions of you
- II. Find something to like** in the person you are working with—connect with them on a human level



NO ONE
sets out to
become addicted
to chemicals or
behaviors



Addiction Defined: ASAM

Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences. Prevention efforts and treatment approaches for addiction are generally as successful as those for other chronic diseases.

Adopted by the ASAM Board of Directors September 15, 2019



Alternative Definition of Addiction

“Addiction is a multi-determined phenomenon with layers within layers of mutual influences, internal and external, all interacting concurrently, leading to a pathological outcome. It is no more true [sic] to say that addiction is simply a brain disease, or a flawed personal choice, or an experience of learning than it is to say that falling in love is nothing but biochemistry.”
(Italics in original)

(Morgan, 2019, p. 4)

Model of SUD Dictates the Approach to Treatment/Intervention

Moral Model (Avery & Avery, 2019, p. 96)



Model of SUD Dictates the Approach to Treatment/Intervention

Biopsychosocial Model (Avery & Avery, 2019, p. 96)




Recovery Defined

“...A lived experience of improved life quality and a sense of empowerment; that the principles of recovery focus on the central ideas of hope, choice, freedom and aspiration that are experienced rather than diagnosed and occur in real life settings rather than in the rarefied atmosphere of clinical settings. Recovery is a process rather than an end state, with the goal of being in an ongoing quest for a better life.”

(Best & Laudet, 2010 as cited in Morgan, 2019, p. 191)





II. Neurobiology of Addiction

How Do Drugs Get to the Brain?

Pharmacodynamics: A drug's effect on the body

Pharmacokinetics: The body's effect on a drug; how a drug is absorbed, distributed, metabolized, eliminated and excreted by the body; all of which are influenced by:

Route of administration

Speed of transit to the brain

Rates of metabolism

Process of elimination

Affinity for nerve cells and neurotransmitters

Pharmacodynamics & pharmacokinetics co-occur

The more rapidly a drug reaches its target in the brain, the greater the reinforcing potential

Routes of Use

Inhalation: The quickest way to the brain (7 – 10 seconds)

Injection: The most dangerous method, as it bypasses the body's natural defenses

- **Intravenously** (15 – 30 seconds)
- Intramuscularly (3 – 5 minutes)
- Subcutaneously (skin popping; 3 – 5 minutes)

Mucous Membrane Absorption: (10 – 15 minutes)

- **Insufflation** (snorting through the nose)
- **Sublingually** (under the tongue) or **Buccally** (between gums & cheek)
- Rectum or vagina
- Eyeball

Oral Ingestion: The drug is absorbed by the stomach or small intestine (20 – 30 minutes)

Contact Absorption: Passive absorption through the skin (up to 7 days, but can take up to 2 days to reach full effect)

Drug Distribution & General Effects

Once into the bloodstream, the drug will be distributed to the rest of the body

The amount of the drug that reaches the brain depends on the drug's **bioavailability** (the degree to which a drug becomes available to target tissues after use)

Once in the blood stream, the drug reaches the **blood-brain barrier** in 10 – 15 seconds

The blood-brain barrier consists of capillaries which have tightly sealed epithelial cells that allow only certain substances (particularly fat-soluble) to cross the barrier

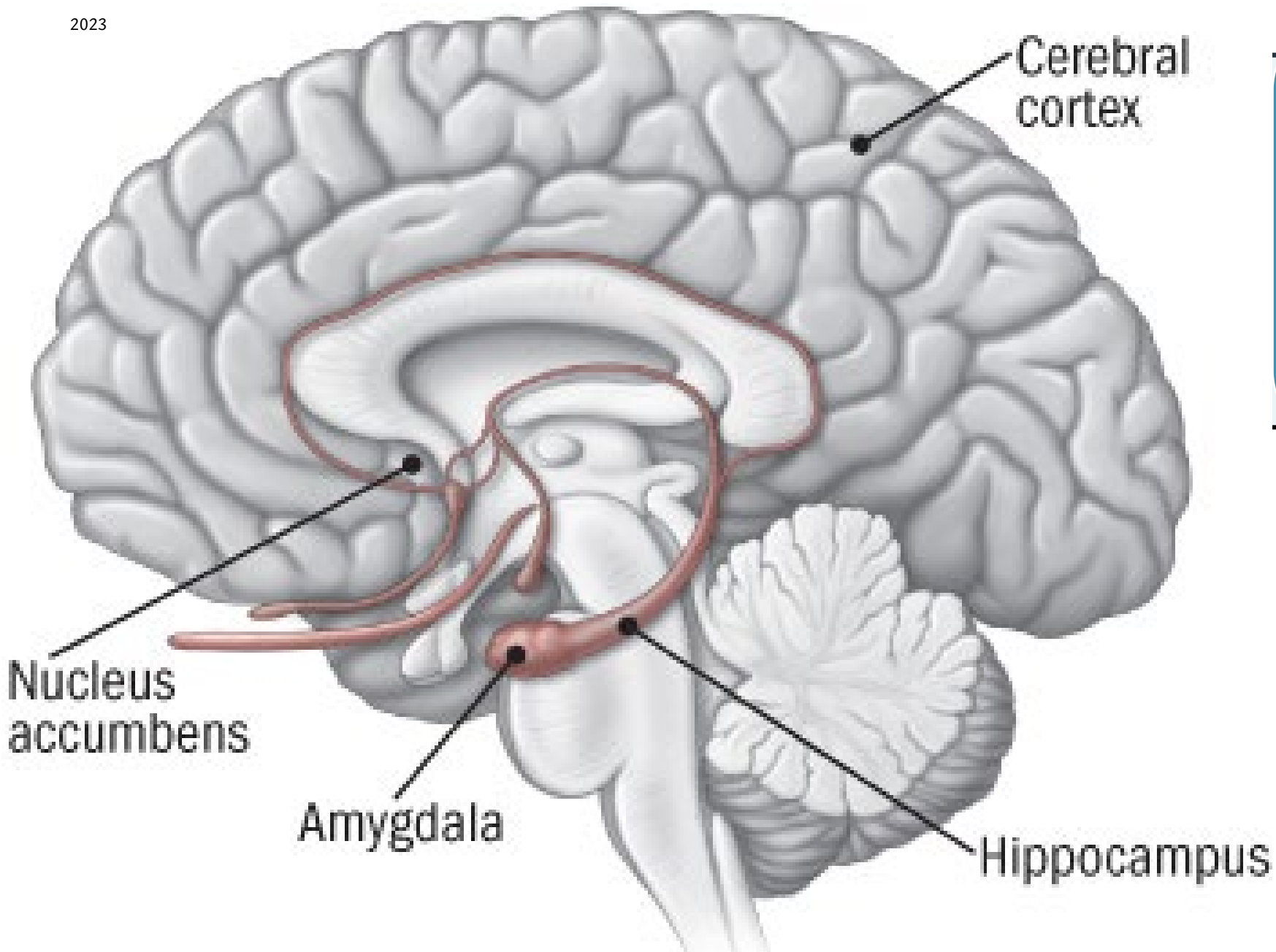
Neuroanatomy

A neurotransmitter binds only to a compatible receptor site

- Each nerve cell produces only one type of neurotransmitter
- But a nerve cell can have receptor sites for several neurotransmitters

Once the neurotransmitter has “docked” with the site, channels on the neuron open to allow ions to enter the receiving cell, changing the polarization of that cell, causing it to “fire” electrically

Down regulation: “If the cell senses that there are too many neurotransmitters (as there can be with drug use), it retracts many of the receptor sites into the cell body, causing a slow-down of message transmission” (Inaba & Cohen, 2014, 2.23)



Addictive drugs provide a shortcut to the brain's reward system by:

- Flooding the **nucleus accumbens** with dopamine
- The **hippocampus** lays down memories of this rapid sense of satisfaction
- The **amygdala** creates a conditioned (anticipated) response to certain stimuli

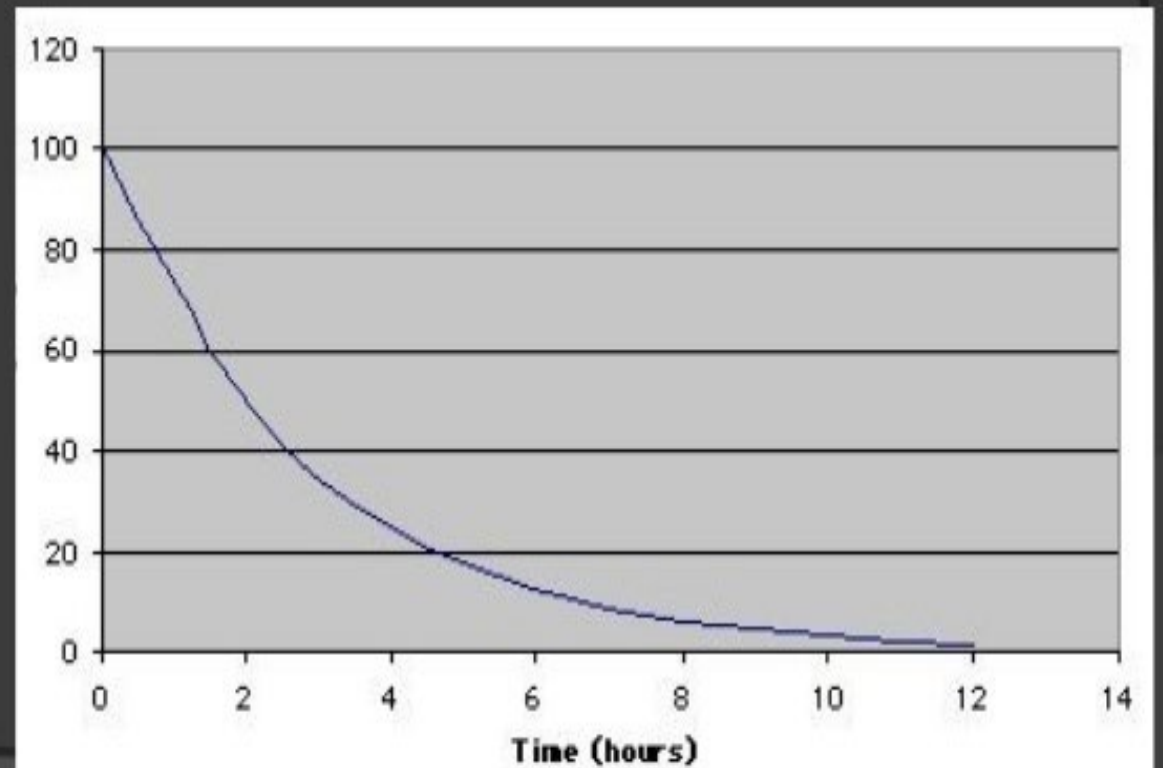
Metabolism

The process of a drug being broken down and inactivated (for many drugs, the liver does most of this process)

Half-Life: The amount of time it takes for half of a drug to be eliminated from the body; the slower the breakdown process, generally the longer the drug has an effect

Plasma half life ($t_{1/2}$) of drug

- Time to decline conc. from 100 to 50 = 2 hr
- So, $t_{1/2}$ of this drug is 2 hr

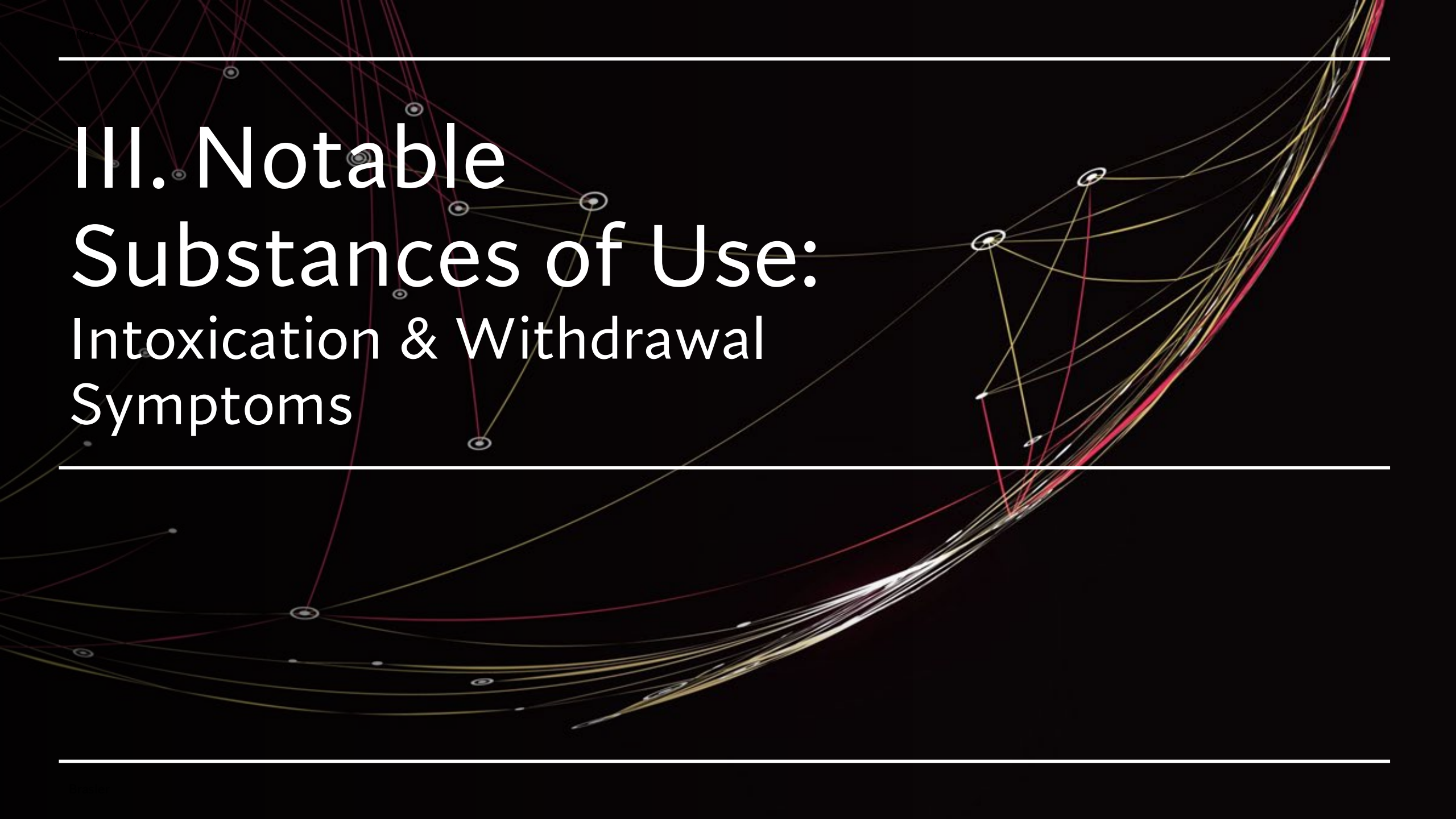


Metabolism Factors

Vary by individual, but are largely dependent on the following:

- **Age:** Metabolism usually slows with age, thus the older the person, the greater the effect
- **Ethnicity:** Enzyme levels differ among various groups: e.g., some people of Asian descent react negatively to alcohol
- **Heredity**
- **Sex**
- **Health**
- **Emotional States:** Emotions can exaggerate the effects of a drug
- **Other drugs;** drug synergism
- **Exaggerated reaction** (allergy to a specific substance)
- **Other factors** (hormonal cycles; environment)

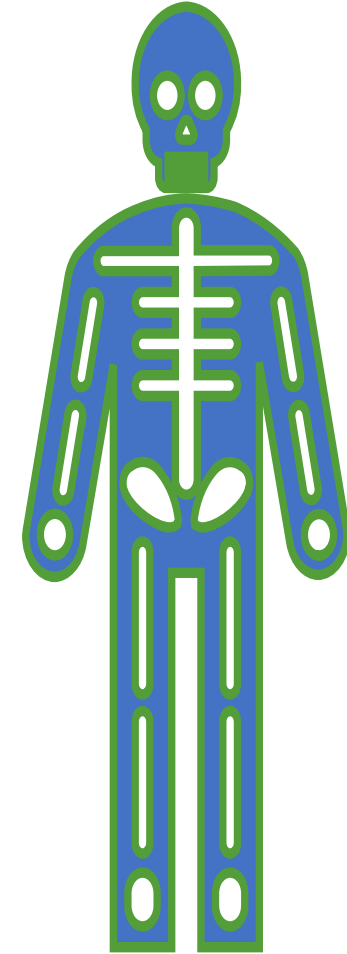
III. Notable Substances of Use: Intoxication & Withdrawal Symptoms



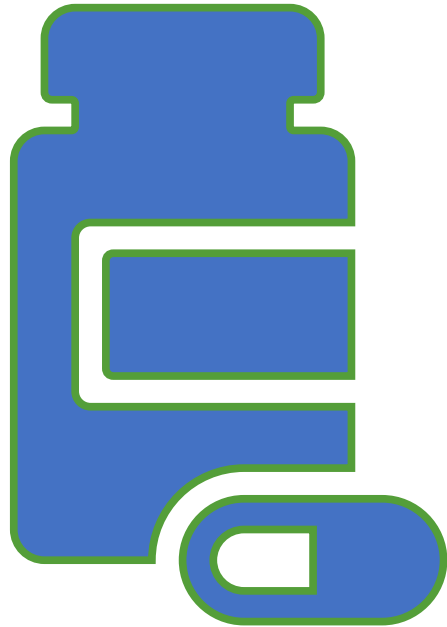
Substance Intoxication

“Intoxication refers to the immediate effects of the drug and occurs during consumption of a drug in a large enough dose to produce significant behavioral, physiological or cognitive impairments. It is these intoxicating effects that drive initial use. When drugs are consumed, a cascade of short- and long-term effects follows. Although some of the effects of intoxication are pleasant and desired, other effects can be aversive” (Filbey, 2019, p. 64)

Some forms of intoxication require immediate medical treatment



Substance Withdrawal



“Withdrawal is a negative state that occurs following cessation from use of a drug that has caused physical dependence. In other words, withdrawal most often occurs in those who have used a drug on a regular basis rather than occasionally” (Filbey, 2019, p. 81)

Some forms of substance withdrawal (specifically alcohol, and other central nervous system depressants) may require immediate and ongoing medical attention to prevent further illness or death

Alcohol & Benzodiazepines



Depressant Intoxication Symptoms

Lowered inhibitions

Mild euphoria

Depression, sedation and relaxation

Memory loss

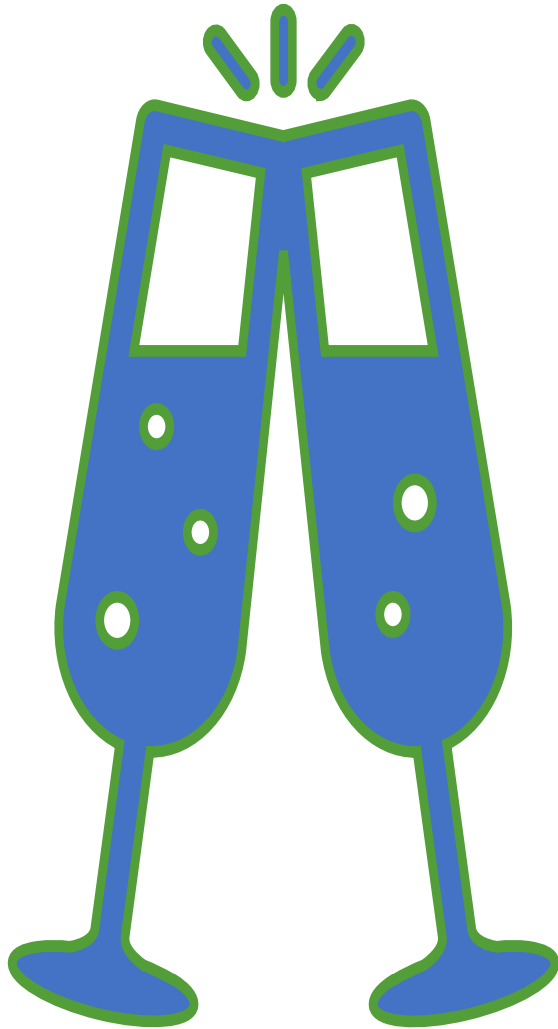
Drowsiness, sleep induction

Reduced coordination and speech

Decreased respiration



Alcohol Equivalency



12 oz. of Beer (4.5% ALC*)

=

10 oz. of Wine Cooler (6% ALC)

=

7 oz. of Malt Liquor (9% ALC)

=

5 oz. of Table Wine (12% ALC)

=

1.5 oz. of 80-Proof Liquor (40% ALC)

Alcohol Use Today

Over 16 million Americans have alcohol use disorder

25 – 30% of all U.S. hospital admissions are due to current or past alcohol use disorder

The lifespan of a chronic, heavy drinker is shortened by 15 years

Ethyl alcohol (ETOH) is the main ingredient

20% of drinkers consume 80% of all ETOH

Alcohol vaporization is becoming increasingly popular

The use of enemas to introduce alcohol rectally has also been reported



Alcohol Use Disorder

“Alcohol is a hard drug. Whatever criterion is used to define this. Its ratio of effective to fatal dose is low, it is highly addictive, and it causes serious physical and psychological harm when used frequently or long term in high doses.”

(Trott, 2019, p. 156)

Benzodiazepines

Prescribed for: Anxiety, seizures, sedation, and as a muscle relaxant

Examples:

- **Xanax[®]** (alprazolam)
- **Valium[®]** (diazepam)
- **Ativan[®]** (lorazepam)
- Klonopin[®] (clonazepam)
- Librium[®] (chlordiazepoxide)
- Restoril[®] (temazepam)



2 mg

Alcohol/ Depressant Withdrawal Symptoms

Nausea/vomiting

Cravings

Malaise & weakness

Tachycardia

Delirium, including
hallucinations

Anxiety rebound and
agitation

Sweating

Irritability

Orthostatic

Hypotension

Tremors

Insomnia

Seizures possible

Depersonalization

High fever

Depression

Alcohol Withdrawal Course

Begins within 4 – 24 hours after the last drink

In mild forms of withdrawal, the symptoms resolve after 48 hours

Tremulousness is the earliest symptom and many people with AUD know that this indicates a need to drink again to avoid more pronounced symptoms

- This appears within hours after drinking stops and peaks in 1 – 2 days but can persist for weeks

In more severe forms, visual hallucinations can occur within 24 hours of cessation—to the patient these are real

Alcohol Withdrawal Course

Between 6 – 48 hours after stopping ETOH use, 3 – 4% of untreated patients will have a seizure

30 – 40% of patients who have a seizure will progress into Delirium-Tremens if they are left untreated

Delirium-Tremens are fatal in up to 25% of people who are not treated

D-Ts can precede or follow a seizure

Repeated withdrawal episodes seem to “kindle” more serious withdrawal episodes

Stimulants



Signs of Stimulant Intoxication



Dilated Pupils

Fast heart rate (tachycardia)

Hypertension

Increased activity

Fever

Aggression

Panic

Paranoia

Psychosis

Seizures



Cocaine Hydrochloride Salt: Powdered form that can be injected intravenously or insufflated (snorted)—reaches the brain in 3 – 5 minutes

Crack/Free-base: Smokable cocaine made by cooking cocaine hydrochloride with baking soda or sodium bicarbonate, which removes the hydrochloride—reaches the brain in 5 – 8 seconds (can also be dissolved and injected)

Cocaine is Used in Two Forms

Methamphetamine

Meth is typically **two to three times stronger than amphetamine**, and lasts longer

Can be taken orally, insufflated, injected or smoked

P2P(phenylacetone) and ephedrine/pseudo-ephedrine are precursor chemicals

- There are hundreds of ways to “cook” meth and most “cooks” learn from other “cooks”
- Meth production labs are environmental disasters

Most meth is now produced in “super-labs” found in other countries and shipped to the U.S.

In places where Meth becomes popular, it generally does so at the expense of cocaine

Differences Between Cocaine & Methamphetamine

COCAINE

- Plant-derived
- More-intense rush
- Smoking or shooting produces a brief, intense, high
- Not taken orally
- 50% of the drug is removed from the body in 1 hour
- Forces a release of dopamine and norepinephrine

METHAMPHETAMINE

- Human-made
- Less-intense rush
- Smoking or shooting produces a longer-lasting high
- Can be taken orally
- 50% of the drug is removed from the body in 12 hours
- Inhibits enzymes that metabolize norepinephrine and epinephrine

“Bath Salts”: Methylenedioxy- pyrovalerone (MDPV) & Mephedrone

Methcathinone derivatives, sold in powder, tablets and capsules; an average dose is five to 20 Mg

Four times the potency of methylphenidate, but has entactogenic and hallucinogenic properties and appears to precipitate psychosis easier than other amphetamines because of its faster and stronger impact on the dopamine system

Effects are typical for most amphetamines, but coming down from use is very unpleasant

Tolerance can build quickly

Most effects resolve in 3 – 4 hours, with milder effects lasting a total of 6 – 8 hours

Amphetamine Psychosis

Typically appears after large doses or chronic use, although in rare cases some people may become psychotic after a relatively small dose

Delusions, paranoia, hallucinations, hyperactivity and panic are reported as the most common features

Onset of amphetamine psychosis can be from 2 – 48 hours after the initial dose

Psychotic symptoms generally disappear as abstinence continues, and rarely persist beyond 24 – 48 hours after the cessation of drug use

The amphetamines essentially over-excite the brain's fear centers



Stimulant Withdrawal Symptoms

- Anhedonia; Depressed mood; Apathy
- Anxiety; Irritability
- Cravings
- Fatigue
- Insomnia or hypersomnia
- Psychomotor retardation at first, then agitation
- Paranoia
- Headaches
- Increase in appetite
- Social withdrawal

Stimulant Withdrawal Course

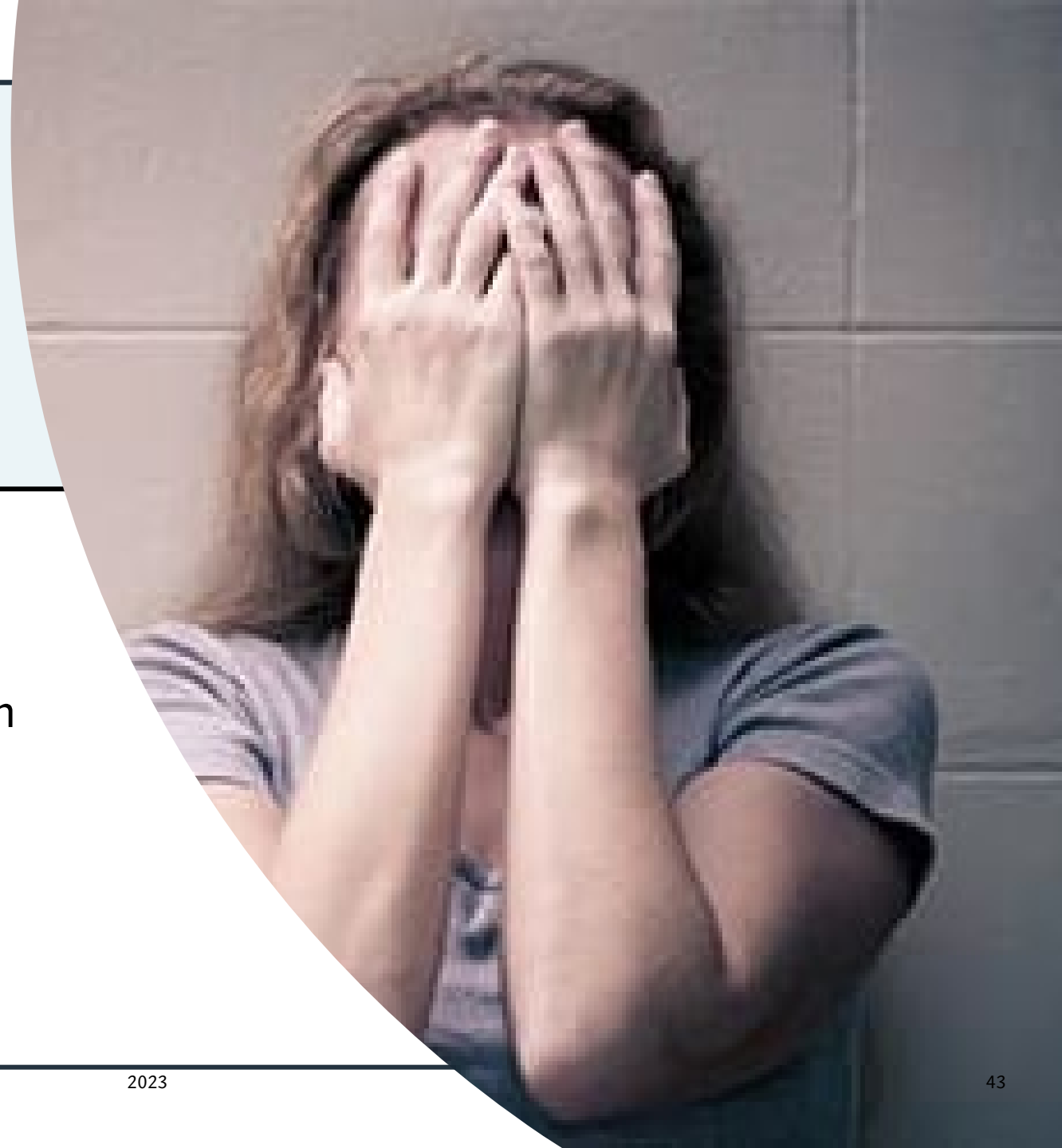
Tolerance often develops quickly

Acute withdrawal symptoms usually peak within two – four days...

...but depression, anxiety and irritability can continue for months

Craving often continues for months or years

Antidepressants may be used to address withdrawal-related depressive symptoms



Opioids



The Scope of the Problem

“Provisional data from CDC’s National Center for Health Statistics indicate there were an estimated 107,622 drug overdose deaths in the United States during 2021, an increase of nearly 15% from the 93,655 deaths estimated in 2020. The 2021 increase was half of what it was a year ago, when overdose deaths rose 30% from 2019 to 2020.”

Synthetic opioids (illicit fentanyl) were the cause of over 70,000 of overdose deaths in 2021

(https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2022/202205.htm)

Opiate Abuse

Physical signs someone you know is abusing opiates.

Nodding

This is when a person temporarily falls asleep at an unusual time like during a conversation or while standing.

Constricted Pupils

Heroin or other opiates will cause the user to have constricted pupils which will appear as pinpoints or a small dot.

Covering their Arms

A person may wear long sleeve shirts, and keep their arms covered, even if it is hot outside.

Needle Marks

Also known as track marks, if someone is shooting the drugs, they may have needle marks on the arms, behind their knees, or ankles

Bad coordination

If someone is high on opiates, their balance may be off, and they might stumble and trip while walking.

Scratching

Another clue is that someone on opiates will usually itch and scratch frequently.

Are you concerned someone you love has an opiate addiction? Visit newroadstreatment.com and see what you can do to help.



- Sedation
- Nausea
- Constipation
- Pinpoint Pupils
- Slowed Breathing
- Coma & Death

Heroin

“Dope,” “junk,” “smack,” “horse,” “shit,” “scramble,” “cheese...”

One to four times the strength of morphine (metabolized into morphine in the body)

First synthesized in 1874; marketed in 1898 by Bayer

Crosses the blood-brain barrier quicker than morphine: Euphoria occurs 10 - 15 seconds after insufflation or smoking, 5 - 8 mins. after muscular injection and less than 20 seconds after intravenous injection

Sold in **two** grades:

- Lower grade (#3), “brown sugar;” “black tar” – usually injected (intravenous, intramuscular, or skin-popped)
- Higher grade (#4 = up to 90% pure), “China White” – can be insufflated (snorted), smoked or injected

Heroin

Injecting heroin (or any other injectable drug), increases the user's potential of contracting HIV, Hepatitis B or C, and developing **abscesses**

- Regular use causes the veins to narrow and harden

Heroin, like all opioids, **decreases respiration**, which is the leading cause of overdose deaths

Most heroin addicts use other drugs, particularly alcohol, nicotine, benzodiazepines and stimulants

- Most fatal heroin overdoses are not the result of heroin alone, but heroin and another drug in combination, usually a depressant

Fentanyl

The most powerful of all opioids, about **80** times more potent than morphine

Used to treat chronic pain, acute pain, and in surgical procedures

Most of the illicit fentanyl we see is manufactured in China; India is also emerging as a source (DEA, 2020)

Fentanyl is being found in other drugs: Cocaine, methamphetamine, and illicitly-manufactured Alprazolam

- This is likely due to cross-contamination as drugs are diluted and repackaged as they move down the supply chain

Sold in gelatin capsules (“Beans”) to users who prefer fentanyl to heroin

There are thousands of Fentanyl analogues, including: **Acetyl Fentanyl**, **Sufentanil**, and **Carfentanil** (100 times more potent than regular Fentanyl)

Why Fentanyl?

“According to the DEA in Philadelphia, a kilogram of heroin sells for \$50,000 to \$80,000, and a drug trafficker can make about \$500,000 in profit. A kilogram of fentanyl sells for \$53,000 to \$55,000, is 50 times stronger than heroin and can render profits in excess of \$5,000,000”

<https://www.jems.com/operations/jems-con-2022-preview-fentanyl/>



Fentanyl Misconceptions

“Fentanyl-laced cannabis products are a malevolent myth that has appeared multiple times in law enforcement press releases and subsequent media reports. To date there are no scientifically verified reports of fentanyl contamination of cannabis products. Fentanyl is destroyed and rendered inert when it is burned. It is possible that fentanyl could be vaporized. However, it requires much higher temperatures than are found in vaping devices that are used to consume tobacco and cannabis products.”

Journal of Emergency Medical Services Con 2022 Preview: Fentanyl Facts and Fiction—A Safety Guide for First Responders.

<https://www.jems.com/operations/jems-con-2022-preview-fentanyl/>

Fentanyl Misconceptions

“There is unanimous agreement among physicians and toxicologists that toxicity and overdose from passive exposure to fentanyl is not possible. If there was a real hazard, it stands to reason that the people who produce fentanyl, distribute, or use it would suffer similar exposures. This is simply not happening.”

Journal of Emergency Medical Services Con 2022 Preview: Fentanyl Facts and Fiction—A Safety Guide for First Responders.

<https://www.jems.com/operations/jems-con-2022-preview-fentanyl/>

“Non-fentanyl-derived ultrapotent synthetic opioids that are several times more potent than fentanyl, such as nitazenes, are being increasingly detected in Canada and the USA.”

(www.thelancet.com/psychiatry Vol 9 September 2022)

“Starting in 2017, new synthetic opioids (NSOs) outside of the fentanyl class began to proliferate, including drugs that retain opioid agonist activity but vary in structure and potency. The most recent NSO subclass to emerge and proliferate is the 2-benzylbenzimidazoles or the ‘nitazenes.’ Several analogs in this subclass have since been discussed in online drug forums, offered for sale online and detected in drug materials. This subclass of analgesic drugs are structurally distinct from fentanyl, fentanyl analogs and other non-fentanyl analogs, such as U-47700, that were popular between 2016 and 2020.”
(Walton et al., 2022)

Nitazenes (Isotonitazene; a.k.a. “ISO”)

Opioid Withdrawal Symptoms

Cravings

Irritability

Depression,
anxiety

Nausea, vomiting,
stomach cramps,
diarrhea

Lacrimation

Rhinorrhea

Piloerection

Muscle (and
possibly bone)
aches and pains

Hot and cold
flashes

Uncontrolled
sweating

Yawning

Anorexia

Insomnia

Fever

Dilated pupils

Opioid Withdrawal Course

Symptoms appear within 6 – 8 hours of last dose

Symptoms peak on the 2nd or 3rd day

Symptoms usually disappear within 7 – 10 days

Duration is much longer with Methadone
(about twice as long as heroin takes)

- Methadone withdrawal can last at least three weeks after the last use if the patient was using a large amount of Methadone

Post-acute withdrawal symptoms of depression, anxiety, sleep disturbances, and agitation can continue for many months afterward

Cannabinoids

Cannabis Intoxication Symptoms

Euphoria, followed by relaxation

Laughing; giddiness

Dilated pupils

Problems tracking with eyes

Slowed thinking

Dry mouth

Bloodshot eyes

Time distortion

Paranoia in some cases

Possible hallucinations in high doses or in susceptible individuals

Increased heart rate

Impaired memory, judgment and learning

Increased appetite

Decreased anxiety

Hyperemesis
(“Cyclical Vomiting Syndrome”) in some individuals

Cannabis (Marijuana)

The most-used illegal (in many places) drug in the world

Ten times the number of marijuana users than cocaine or heroin users

Cannabis contains at least 565 chemicals, at least 120 of which are Cannabinoids; **Tetrahydrocannabinol (THC) is the primary psychoactive ingredient**

Can be smoked or eaten (when eaten, less THC gets into the body, so more marijuana needs to be consumed, but the effects are stronger and longer since the cannabis is metabolized by the liver into other, more potent, chemicals)

The brain contains receptor sites for Cannabinoids that help regulate mood, appetite, sleep, and many other functions

Two primary types of cannabis:

Cannabis (Marijuana)

Cannabis sativa (grows in tropical/semitropical regions [or indoors]). Tall plants that tend to have more THC content

Primary psychoactive ingredient in cannabis is delta-9-tetrahydrocannabinol [THC]

Commercial cannabis contains 7 – 20% THC content

Cannabis indica (grows in more temperate climates). Smaller, bushy plants that tend to have less THC and more CBD

Cannabidiol [CBD] is not psychoactive and tends to be more relaxing. Research has demonstrated medical uses for this chemical

THC Concentrates

Hash oil, “Dab,” “Amber,” “Shatter,” “Shattered glass”

Cannabinoids are extracted from plant material using solvents (e.g., the plants are boiled in alcohol) or pressurized butane

This produces a concentrated viscous liquid (which can be dried into a solid form and smoked) or is mixed with marijuana or tobacco and smoked

Typically used in the Middle East, now seeing Butane Hash Oil (BHO) being used in the U.S.

THC content can be from 20 – 90%

Cannabimimetics (“Synthetic Cannabis”)

“Spice”/“K2”/JWH-018 (1-pentyl-3-(1-naphthoyl)indole)—and other JWH series

Synthetic chemicals that mimic delta-9-tetrahydrocannabinol (THC) but bind more readily (full agonist) to endocannabinoid receptors (specifically CB-1), creating a stronger response

Typically dissolved and applied to inert plant material, which is dried and then crushed and smoked

Sold as incense or potpourri at “Head Shops” and even convenience stores (now illegal in most localities)

Usually does not result as + for THC on drug screens

Tends to create sensations like marijuana, but can create more anxiety, aggression, elevated heart rates, vomiting, psychosis, paranoia, seizures, and excited delirium; all of which are uncommon with marijuana

Cannabis Withdrawal Symptoms

This is a longer process than stimulants or opioids (and quitting at first usually feels easy to the chronic user)

Most heavy users may not experience all the following when withdrawing, but symptoms can include:

- Restlessness, hyperactivity, sweating, tremors
- Irritability, **anxiety**, anger
- Stomach pain, nausea, loss of appetite
- **Insomnia**, cravings
- Inability to concentrate, **depression**

Cannabis & Psychosis

“Daily cannabis use is associated with an increased risk of psychotic symptoms or a diagnosis of a schizophreniform psychosis in prospective epidemiological studies. These risks are higher in those who begin cannabis use in adolescence, those who use it more often and for longer, and those who use strains with high THC and/or low cannabidiol.” (Hall & Lynskey, 2020, p. 181)

“Psychotic patients who continue to use cannabis, especially high-potency forms, have higher relapse rates, longer hospital admissions (suggesting more severe relapses which take longer to stabilize), and more severe positive symptoms than either former users who discontinued or never-users.” (Sideli et al., 2020, p. 27)

Cannabis & Psychosis

“It is often said that there has not been an increase in the prevalence of schizophrenia, despite an increase in cannabis use; however, there is little reliable information on temporal trends in the incidence of schizophrenia, so it is difficult to examine this question. One study using consistent diagnostic criteria for schizophrenia reported that the incidence in South London doubled between 1965 and 1999. Very recently, a large European study (the EU-GEI study) has shown an eightfold variation in the incidence of psychosis across 17 centers; the highest rates were found in London and Amsterdam, which also reported the greatest use of high-potency cannabis. Indeed, in these two cities, the use of high-potency cannabis accounted for almost one-third and one-half, respectively, of all new cases of psychosis.”

(Sideli et al., 2020, p. 26)

IV. Co-Occurring Disorders





An initial/provisional diagnosis is usually made following the end of a full assessment



This provides a “road map” for selecting initial treatment interventions and developing a more comprehensive/long-term treatment plan



An accurate diagnosis is a **dynamic**, not static, process that proceeds through a process of elimination



The diagnosis guides, but does not dictate, treatment

Diagnosis Formulation

Diagnosis

Whenever possible, gather information from **collateral sources** in addition to the patient

In cases when you are not certain, defer to the more conservative diagnosis (e.g., Unspecified depressive disorder instead of Major Depressive Disorder)

Always remember that individuals can differ dramatically in how they present with the same disorder

Avoid allowing a cookie-cutter diagnosis to turn into cookie-cutter intervention planning and delivery

Diagnosis: Exclusionary Factors

When making a diagnosis, you must take the following into account:

The symptoms **must** cause a significant disturbance in the individual's life over a stated minimal timeframe that is specific to the diagnosis, (i.e., two weeks, six months, etc.)

The disturbance **must** impact several of the patient's life domains unless otherwise specified

The disorder **cannot** be the result of a **medical condition**

The disorder **cannot** be the result of a **substance of misuse or a medication**

BASICALLY, FOLLOW WHAT IS IN THE DSM-5™

Over half the people (a low estimate in my opinion) with a serious mental illness also have a serious substance use problem

Co-occurring disorders (which used to be called Dual Diagnosis) are defined as the existence of at least one independent major mental disorder and one independent SUD

Since most mental illnesses and SUD symptoms are identical, it is often difficult to determine if the symptoms are because of a mental illness or the effects of a drug

Co- Occurring Disorders

Substance-Induced Mental Disorders

Alcohol-induced Depressive Disorder:

- Alcohol-Induced Anxiety Disorder
- Alcohol-Induced Bipolar Disorder
- Alcohol-Induced Psychotic Disorder
- Alcohol-Induced Neurocognitive Disorder (Dementia)
- Alcohol-Induced Delirium
- Alcohol-Induced Sleep Disorder
- Alcohol-Induced Sexual Dysfunction

Cannabis-Induced...

Opioid-Induced...

Stimulant-Induced...

Hallucinogenic-Induced...

Inhalant-Induced...

Substance-Induced

Admitted use of a substance

No history of mental illness symptoms

Short duration of symptoms

Manifestation of symptoms occur at any time

Variation in symptoms severity over several hours

Cessation of symptoms when the substance is metabolized and excreted

Non-Substance Related

No evidence of recent substance use (UDS results are unreliable)

Documented history of mental illness symptoms

Long duration of symptoms

Manifestation of symptoms started in late-adolescence/early adulthood

Little variation in symptoms over time

Symptoms continue without treatment



“Individuals should be engaged in treatment that addresses their co-occurring psychiatric symptoms, even if the origin of the co-occurring mental disorder is unclear”

(SAMHSA, 2020, p. 126)

An aerial photograph of a complex, winding river system in a brown, textured landscape. The river channels are a vibrant blue-green color, contrasting sharply with the surrounding brown, textured terrain. The river flows in a meandering pattern, creating a network of interconnected channels and loops. The overall appearance is that of a natural, organic structure, possibly a wetland or a coastal area with a unique topography.

Schizophrenia

Schizophrenia: An Overview

Schizophrenia is one of the most variable mental health disorders

- Its symptoms overlap many other disorders, and none of the symptoms that define schizophrenia are specific to schizophrenia alone—they occur with many other disorders as well
- At the same time, two people can have schizophrenia with completely different symptom-sets

Despite older views that schizophrenia only starts in late adolescence or early adulthood, more contemporary views agree that schizophrenia can occur any time during and after adolescence

“About 50% of clients with schizophrenia use substances; 75% have tobacco use disorder” (Herron & Brennan, 2015, p. 505)



Delusions



Hallucinations



Disorganized Thinking or Speech

Grossly Disorganized Behaviors



Negative Symptoms

Schizophrenia Symptom Groups

Delusions

Fixed false beliefs that involve a misinterpretation of perceptions or experiences

May involve a variety of themes, with persecutory being the most common

Ideas of reference are also common, in which the person believes that certain gestures, television shows, song lyrics or environmental cues are specifically for them

Bizarre delusions are clearly implausible

“The distinction between a delusion and a strongly held idea is sometimes difficult to make and depends in part on the degree of conviction with which the belief is held despite clear or reasonable contradictory evidence regarding its veracity” (APA, 2013, p. 87)

Hallucinations

Occur with any sense, but the most common with organic psychotic disorders are **auditory hallucinations**

Not under voluntary control

Usually experienced as voices that are distinctly outside of the person's thoughts

Certain types of auditory hallucinations, especially command hallucinations or voices making a running commentary on the person's thoughts or actions, are indicative of schizophrenia

Not all strange perceptual experiences are psychotic

- Illusions are misconceptions of actual sensory stimuli—these happen all the time

Hallucinations are generated in the brain in the absence of any external stimuli

Disorganized Thinking/Speech

The person may move from one topic to another (tangential thinking, loose associations)

Answers to questions may be partially or completely unrelated to the question

May be so severe that the person does not make any sense at all (word salad)



A variety of behaviors from childlike actions to unpredictable agitation

Problems may be noted in any goal-directed behavior, leading to problems with performing activities of daily living (e.g., maintaining hygiene)

The person may appear to be disheveled, dressed inappropriately for the weather, or act bizarre

Grossly Disorganized Behavior



Negative Symptoms

Affective flattening: The person's face appears flat and unmoving, with poor eye contact and body language

Alogia: Brief, empty replies, decreased productivity of speech

Avolition: The person may sit for long periods of time, showing little interest in work or social activities



Substances That Can Mimic Psychotic Disorders

Stimulants (some more than others) at either regular levels or overdose

Anabolic steroids

Inhalants

Cannabis (in some individuals); synthetic cannabinoids are more likely to cause psychosis

Hallucinogens

Dissociates

Entactogens

Alcohol: Wernicke-Korsakoff syndrome

Depressant withdrawal syndrome

Treating Co-Occurring SUD & Schizophrenia

Case management (or care coordination) is important to ensure that services are delivered consistently (especially when provided by separate agencies) to ensure treatment continuity

Medication adherence is often necessary for people with psychotic disorders

Some programs (based on Assertive Community Treatment [ACT] models) have case managers or clinicians who visit clients daily to ensure they are safe, have enough to eat, are taking their medication, assess transportation needs, etc.

- Even outside such intensive services, CM can help with housing issues, along with food resources, medical concerns
- It is important to help the client create structure (e.g., a daily routine/structure) while also protecting the client's rights

Mood Disorders: Major Depressive & Bipolar Disorders



Major Depressive Disorder

Diagnostic Features

Can present with either increased or decreased appetite, and increased or decreased sleep

Increased agitation, frustration, and anger outbursts are not uncommon

Sense of worthlessness or guilt is often present

Individuals may misinterpret normal daily incidents as evidence to support their negative self-concept

Difficulty concentrating and/or making even simple decisions is a common symptom

Thoughts of death and suicidal ideation are common

Major Depressive Disorder

Diagnostic Features

Affective symptoms include tearfulness, irritability, brooding

Excessive worry, even anxiety can occur

Phobias, somatic complaints, and chronic pain symptoms can also occur

Suicide is one of the possible mortality outcomes of depression (about 10%)

- Untreated depression, even if it does not result in suicide, leads to higher mortality due to medical illness

Fatigue or insomnia are usually presenting symptoms

For some people with mild depression, they may appear to be functioning normally but doing so causes them to expend a lot of energy

Substances That Can Mimic **Depressive Disorders**



Chronic or excessive alcohol use, including alcohol intoxication and withdrawal syndromes

Stimulant withdrawal

Cannabis withdrawal

Resolution phase of entactogens and hallucinogens

Bipolar I Diagnostic Features (Manic Episode)

An abnormally, persistently elevated, expansive or irritable mood and persistently increased activity and energy that is present for most of the day, nearly every day, for a period of at least one week

Mood is often described as “feeling on top of the world,” or “feeling high without drugs”

Rapid shifts in mood may occur (happy, sad, angry, repeat...)—this is called lability

May engage in multiple, overlapping projects, generally using goal-directed behaviors

Inflated self-confidence to supreme grandiosity can occur

Bipolar I Diagnostic Features (Manic Episode)

Engaging in risky or dangerous behaviors may be present

Decreased need for sleep is a major indicator

Speech is often loud and pressured—another person cannot get a word in edgewise

- The speech itself may make no sense, and include singing; lots of drama

If the person is irritable, their speech is often hostile, threatening and abusive, leading people close to the patient to note, “this is not at all like them; they never say things like that!”

Racing thoughts can be present

Bipolar I Diagnostic Features

Following the end of a manic episode, the patient may transition into a hypomanic episode, a depressive episode, or may return to a sense of normalcy (euthymia)

Many people go from mania to severe depression

The use of substances can co-occur with Bipolar I disorder, and the clinician needs to be careful to not label the effects of a stimulant or another inebriant as a manic episode

Individuals experiencing a full-blown manic episode often require hospitalization for stabilization

Case Study: Dee

Dee is a 28-year-old female who states that she has bipolar disorder and feels out of control. She has never heard the term “manic episode” before but admits that “I get like that when I smoke cocaine,” which she used last night. She is prescribed Prozac and Xanax by her psychiatrist. Dee describes her symptoms as “being happy one minute and sad or angry the next.” Dee also states, “I have an anger management problem!” She receives disability payments for her bipolar disorder. Further discussion reveals that she was molested for much of her childhood by her step-father. When she reported this to her mother, her mother beat her and threw her out of the home.



Stimulants (any kind)



Cannabinoids (in some individuals)



Hallucinogens



Dissociatives



Depressant paradoxical stimulant reactions in some individuals

Substances
That Can Mimic
a Manic
Episode/
Bipolar Disorder

Treating Co-Occurring SUD & Mood Disorders

Current practice is to treat the SUD and then evaluate mood disorder symptoms when the client is not intoxicated or in acute withdrawal

- If the symptoms persist beyond acute withdrawal, then evaluate for possible medical treatment of the mood disorder

Psychotherapy (group and/or individual), in addition to appropriate medication therapy, is often the most helpful

Case management can help clients determine what additional needs they may have and help the client connect with resources

Help the client navigate peer groups that have outdated or biased views against the use of medication and treatment to address mood disorder symptoms

Anxiety Disorders: Overview

The disorders in this group constitute many of the common complaints that bring people to counseling

Fear: Emotional response to a real or perceived threat

Anxiety: Response/anticipation of future threat

These feelings can lead to pervasive avoidance behaviors that also cause problems in everyday functioning

These disorders differ from typical fear, anxiety and avoidance in that they are **excessive** and **persistent**

Many of these disorders develop in childhood and tend to persist if not treated

Panic Disorder: Diagnostic Features

Panic attacks are abrupt and intense, with the symptoms often described as like a heart attack

- Many of the accompanying or secondary symptoms are due to decreased oxygenated blood because the person has hyperventilated during the panic attack

Panic attacks are often unexpected, with no obvious triggers

Expected panic attacks often occur because the person is triggered by cues from a previous panic attack

Frequency and severity can vary

Many people with panic attacks worry that their symptoms are signs of serious underlying medical problems

Post Traumatic Stress Disorder & Acute Stress Disorder: Diagnostic Features

The primary difference between PTSD and ASD is the length of time in which symptoms are present

- ASD can be diagnosed 3 – 30 days following a traumatic event
- PTSD can be diagnosed 30 days or more from the traumatic event

Most people who experience a trauma will not develop either ASD or PTSD

- Likewise, many people who are diagnosed with ASD do not progress to PTSD

As we saw in the first section, the connection between trauma and SUD is substantial

PTSD & ASD Diagnostic Features

(SAMHSA, 2020, p. 86)

Intrusive, persistent re-experiences of the trauma, including recurrent dreams or nightmares, flashbacks, and distressing memories

Persistent avoidance of people, places, objects, and events that remind the person of the trauma or otherwise trigger distressing memories, thoughts, feelings, and physiological reactions

Negative alterations in cognitions and mood, such as memory loss (particularly regarding details surrounding the event), self-blame, guilt, hopelessness, social withdrawal, and an inability to experience positive emotions

Marked alterations in arousal and reactivity, such as experiencing sleeplessness or feeling “jumpy,” “on edge,” easily startled, irritable, angry, or unable to concentrate

Common Trauma Mis- Diagnoses

Bipolar Disorders
Anxiety Disorders
Depressive
Disorders
Psychotic Disorders
Personality
Disorders (any of
them)
Somatization
Disorders
Sleep Disorders

Attention Deficit
Hyperactivity
Disorder
Conduct Disorder or
Oppositional-
Defiant Disorder
Intermittent
Explosive Disorder
Substance Use
Disorders
Adjustment
Disorders

Substances That Can Mimic Anxiety or Trauma Disorders

Stimulant use, overdose, or withdrawal

Opioid Withdrawal

Alcohol Withdrawal

Benzodiazepine Withdrawal

Panic during the use of hallucinogens, entactogens, or dissociates

Adverse reactions to cannabinoids

Treating Co-Occurring SUD & Anxiety/Trauma Disorders

“As a general rule, PTSD [and anxiety disorders] assessment should be conducted after a patient has emerged from acute alcohol or drug intoxication and withdrawal” (Herron & Brennan, 2015, p. 525)

Group settings may be overwhelming to clients with anxiety and/or trauma disorders

CBT approaches have proven successful in treating anxiety disorders and SUD

Medical approaches should address potential abuse of medications, particularly benzodiazepines and drug-drug interactions

Treating Co-Occurring SUD & Anxiety/Trauma Disorders

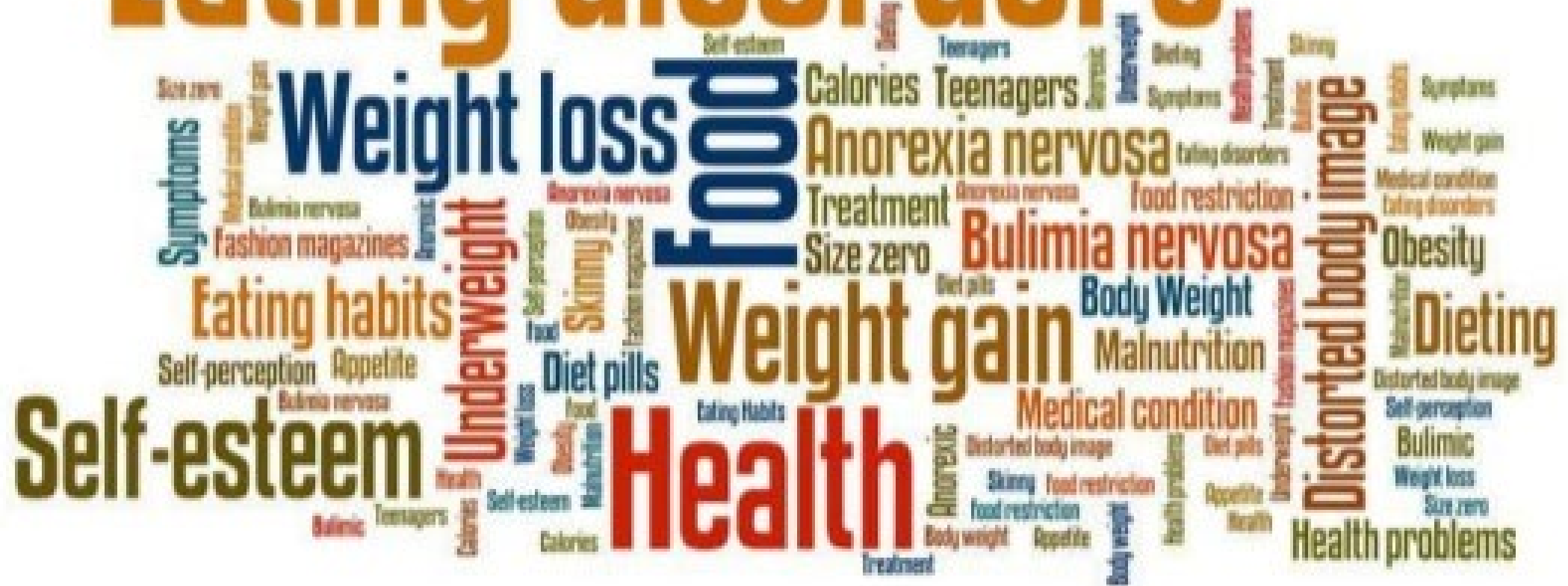
In the case of trauma-related disorders, trauma-informed care is essential throughout all phases of treatment

Traumatic memories are often a trigger for the client to use, so establishing safety is imperative...

...but trauma and SUD can be treated concurrently

One option is Seeking Safety: “A 25-session, present-focused, manualized treatment that provides psychoeducation, teaches coping skills, and helps clients gain more control over their lives” (Herron & Brennan, 2015, p. 527)

Eating disorders



Eating Disorders: An Overview

Eating disorders, particularly Anorexia Nervosa and Bulimia Nervosa, are some of the most serious mental health disorders

- Mortality amongst individuals with these disorders is higher than nearly all other mental health disorders
- This includes a higher risk of suicide

Clinicians should not treat an individual with an eating disorder unless they have received professional training in treating people with Eating Disorders AND they are working as part of an interdisciplinary team that includes (at the very least) a medical provider trained in treating people with Eating Disorders and a Registered Dietician

Anorexia Nervosa Diagnostic Features

“Individuals with anorexia nervosa (AN) are characterized by extremely low body weight for their age and height and are often adamant in their denial of the disorder” (Herron & Brennan, 2015, p. 529)

- The person’s fear of gaining weight is profound, even when the individual is critically underweight

There are two sub-types of AN:

- Binge-Eating/Purging Type: “The weight loss and body image distortions are accompanied by binge eating and purging (vomiting, laxatives, etc.)” (Frances, 2013, p. 145)
- Restricting Type: Very little energy is consumed

Elevated suicide risk along with potential medical problems (e.g., emaciation, arrhythmias, hypotension, dehydration, loss of bone mass, growth retardation) are primary concerns

Bulimia Nervosa Diagnostic Features

Individuals with BN are typically within the normal weight to overweight BMI range

Excessive concern for body weight, shape and size

Binging and compensatory behaviors are key components of BN:

- “Binges are periodic, concentrated, and extraordinary ‘pig-outs’” (Frances, 2013, p. 147)
- Purging is one subtype of BN, with vomiting the most common way of purging (enemas, laxatives and diuretics are also used)
- Non-purging behaviors include excessive exercise and fasting

A higher prevalence of BN than AN in the general population

- Greater co-morbidity with SUD and BN (Gregorowski et al., 2013)
 - People can vacillate between AN and BN (Frances, 2013)
-

“Patients with eating disorders who abuse substances demonstrate worse ED symptomatology and poorer outcomes than those with EDs alone, and the presence of an ED in SUD patients leads to greater severity of substance abuse and poorer functional outcomes”
(Gregorowski et al., 2013, p. 7)

Eating Disorders & SUD

Treating Eating Disorders & SUD

“The strongest message conveyed in current literature is the importance of screening and assessment for co-morbid SUDs and EDs in patients presenting with either disorder” (Gregorowski et al., 2013, p. 7)

- The Eating Disorder Examination Questionnaire (EDE-Q 6.0) is a reliable screening tool (Berg et al., 2012)

Concurrent treatment is highly recommended for co-occurring SUD and EDs (SAMHSA, 2020)

- But given the lack of programs, SUD may need to be addressed first

Clients with AN may require medical hospitalization to stabilize and treat medical issues related to their AN

- This may include re-hydration and refeeding

Individual and family therapies are often utilized for EDs & SUDs

- CBT is often utilized as a treatment approach

Personality Disorders



Personality Disorders

Cluster A: Odd or Eccentric (Psychotic)	Cluster B: Dramatic & Emotional (Mood)	Cluster C: Anxious or Fearful (Anxiety)
<p>Paranoid Personality Disorder</p> <p>Schizoid Personality Disorder</p> <p>Schizotypal Personality Disorder</p>	<p>Antisocial Personality Disorder</p> <p>Borderline Personality Disorder</p> <p>Histrionic Personality Disorder</p> <p>Narcissistic Personality Disorder</p>	<p>Avoidant Personality Disorder</p> <p>Dependent Personality Disorder</p> <p>Obsessive-Compulsive Personality Disorder</p>

Personality Disorders

There is high comorbidity between Cluster B Personality Disorders, and low comorbidity with Cluster A and Cluster C PDs

- Co-occurring SUD and Antisocial PD is more common in men
- Co-Occurring SUD and Borderline PD is more common in women

Cloninger (2000) focuses on four core features that are suggestive of any PD (as cited in Herron & Brennan, 2015, p. 520):

- Low self-directedness
- Low cooperativeness
- Low affective stability
- Low self-transcendence (unstable self-image, emptiness and erratic world view)

Borderline Personality Disorder

Diagnostic Features

Extreme impulsivity, including self-injurious behaviors that are typically not truly suicidal in nature

- But because suicidal behaviors are common, death by suicide (sometimes accidental) is between eight and 10% of patients

Easily bored

Can be very rude, sarcastic, and demanding

Typically undermine their own successes

Symptoms tend to decrease in middle adulthood

Difficult for many clinicians to develop empathy for people with BPD because of their unstable moods

Borderline Personality Disorder

Diagnostic Features

Occurs more often in women than men (3:1 ratio)

The fear of abandonment is intense—a person with BPD finds being alone intolerable

- “I hate you, don’t leave me; I love you, get away from me!”

Dramatic, sudden and intense changes in how the person defines or expresses themselves

People (including how the individual sees themselves) are seen in black and white, but they can change “sides” quickly

Stability is elusive

Keys to Working with People with Borderline Personality disorder

Set limits at the beginning of treatment: This includes all outside-of-session contacts (unless this is a proscribed treatment modality like Dialectical Behavioral Therapy)

You will likely be lavishly praised at the start of treatment; do not allow your ego to take control

You will then be denigrated, often for no discernible reason; do not take it personally

These individuals are usually in a state of perpetual crisis or near-crisis; you remain calm

Likewise, their focus on their treatment will likely be all over the place: Set goals and objectives and stick with them; I recommend a CBT or DBT approach

Antisocial Personality Disorder: Diagnostic Features

The key aspect with ASPD is a pervasive (some say complete) disregard for the rights of others and a pattern of violating said rights in numerous settings

The person must have some of the symptoms of Conduct Disorder before the age of 15 (I often ask adults if they have ever been in jail or prison, and why they were incarcerated)

Be especially aware of aggression to people and animals, destruction of property, deceitfulness or theft, and serious violation of rules

Narcissistic Personality Disorder: Diagnostic Features

People with NPD often assume that others feel the same way about themselves as they do

They are entitled: Often insist on having “the top” doctor, teacher, etc. for them or their family

Only form relationships with others who “measure up” and who can help them get “to the top”

Oblivious to the hurtful things they can say

Envious of others when they succeed

Self-esteem is incredibly fragile

Much more common in men

Keys to Working with People with Antisocial PD or Narcissistic PD

If you directly challenge their “superiority,” they will usually quit treatment; instead, ask a lot of questions

It is okay to allow them to be the “expert...”

...But do not allow them to bully you

Calmly set the expectations for treatment at the beginning, especially if you are working with a couple or a family—and stick to the limits you set

Remember at the core is a person whose ego is fragile; when “cornered,” they will attack (usually verbally, rarely physically)

Do not take anything personally

The individual will usually blame others for their problems: I suggest a Motivational Interviewing approach

Treating SUD & Personality Disorders

SUD treatment, both individual and group, is compatible with Dialectical Behavioral Therapy, which is designed to address Borderline Personality Disorder

Peer-led recovery groups can also be beneficial

Clients with PD can overwhelm therapeutic groups with their emotional flooding, so facilitators may need to be more active and directive in groups if this occurs

Likewise, some people with PD can be overwhelming to you as a clinician, so be mindful of transference and counter-transference issues and seek supervision as needed

Attention Deficit Hyperactivity Disorder



Attention-Deficit Hyperactivity Disorder: Diagnostic Features

Persistent problems maintaining attention, giving attention to details, and following-through on tasks

The client does not seem to be listening when spoken to directly

Disorganized, forgetful and easily distracted

Avoids things that require sustained attention

Talks excessively, has a hard time sitting still, or waiting their turn

“Fidgets” and “always seems to be ‘on the go’”

Low frustration tolerance, irritability or mood lability are common

Attention-Deficit Hyperactivity Disorder: Diagnostic Features

Persistent symptoms in a variety of settings is the key to an accurate diagnosis

ADHD begins in childhood and several symptoms must be present before age 12 (in DSM IV it was age seven)

Adult recall of childhood symptoms is unreliable

The diagnosis should not be made unless information has been obtained from collateral sources (not just what the patient says)

There are no biological markers for ADHD

Treating Co- Occurring SUD & ADHD

Consider using non-stimulant medications to address ADHD symptoms, specifically for clients who are currently using drugs

Stimulants can be considered for patients who are in sustained recovery

- Be aware of possible diversion of prescription medications

CBT can be helpful in addressing negative thought-processes

Group therapy can be helpful, but people with ADHD may find it challenging to sit through groups

V. Harm Reduction & Contingency Management



2,47

Harm Reduction

Does not view abstinence as the only measure of success

“Success” means any reduction in substance-related harm

The goal is to meet clients “where they are” and minimize the harmful effects of substance use

- Abstinence can be viewed as an ideal end goal, but there is flexibility either getting to this point or simply reducing the harm

Includes a variety of strategies that can be effective for many clients

Not appropriate for clients who are highly motivated for abstinence; let the client decide their direction

Harm Reduction Successes

Limiting the transmission of Hepatitis C & B, HIV/other STIs (condom distribution; needle exchange programs; supervised injection sites)

Reducing the number of people dying from drug misuse (Naloxone distribution)

Limiting violence and/or crime (medication-assisted therapy)

Decreasing the amount or type of substance(s) used

Minimizing contact with associates who use

Decreasing the impact of comorbid psychiatric/mental health problems (treating a mental illness that could be linked to the substance use disorder)

Contingency Management

Behavioral approach that has been well-studied

Rewards positive/desired behaviors with nominal rewards (e.g., gift cards/vouchers) that can increase in value the longer a person continues the desired behavior

These behaviors can be abstinence from chemical use (e.g., negative drug screens) or participation in treatment

Relapses are teachable moments, with the value of the vouchers/rewards being reduced

Typically used in treating drugs that are easily detected in a POC urine drug screen or breathalyzer

About half of the people who engage in CM tend to respond quickly, with the other half not responding at all

Contingency Management

Contingency management can be a part of inpatient and outpatient programs

CM can also be used within Drug Treatment Courts

We utilized CM in our OBOT program:

- Clients were able to draw from a prize box if they:
 - Were on time
 - Took their medication as prescribed
 - Tested negative for illicit chemicals
- 50% of the prizes were inspirational quotes
- 40% of the prizes were \$5 or less
- 10% of the prizes had values of about \$25

VI. Medications for Opioid Use Disorder

Abbreviations

MOUD: Medication for Opioid Use Disorder
(formerly called Medication-Assisted Treatment)

OBOT: Office-Based Opioid Treatment Program
(prescribes buprenorphine or naltrexone)

OTP: Opioid Treatment Program (formerly called
Methadone Clinics—dispenses methadone,
buprenorphine or naltrexone)

OUD: Opioid Use Disorder (formerly Opioid
Addiction, Opioid Misuse, Opioid Dependence)

SUD: Substance Use Disorder (formerly
Addiction, Abuse, Dependence)

Myths of Medically Treating Opioid Use Disorder

Medications like methadone and buprenorphine only replace one addiction with another

Clients should taper off methadone and buprenorphine at some point

Dosages of methadone and buprenorphine should be limited

Clients prescribed buprenorphine or methadone must attend counseling

MOUD is incompatible with 12-step peer recovery programs

Clients should be terminated from MOUD programs if they use illicit substances

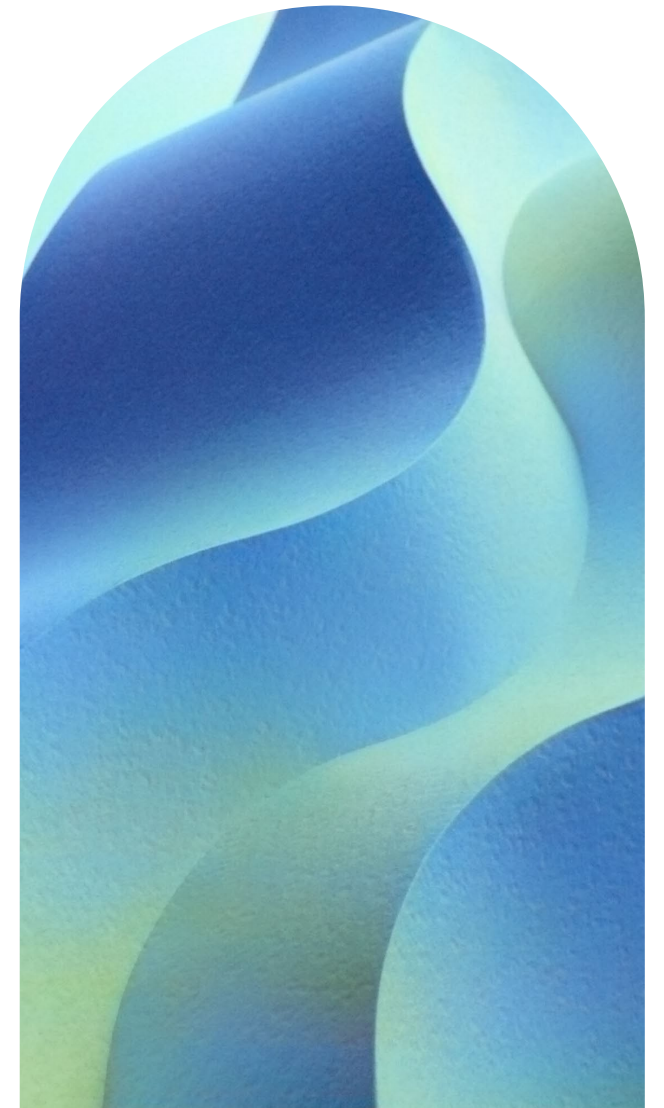
Pharmacotherapy for Opioid Use Disorder

Methadone and Buprenorphine (the active ingredient in Suboxone) are both opioids—human-made chemicals that are like opiates (medicines made from opium)

Methadone was approved for opioid use disorder treatment in 1972 and Buprenorphine in 2002

- Given by a licensed provider and administered in oral form (an injectable form of buprenorphine is available)

Behavioral health treatment is an important part of MOUD treatment, but clients should **not** be forced to receive counseling to be able to receive pharmacotherapy



Methadone & Buprenorphine Therapies

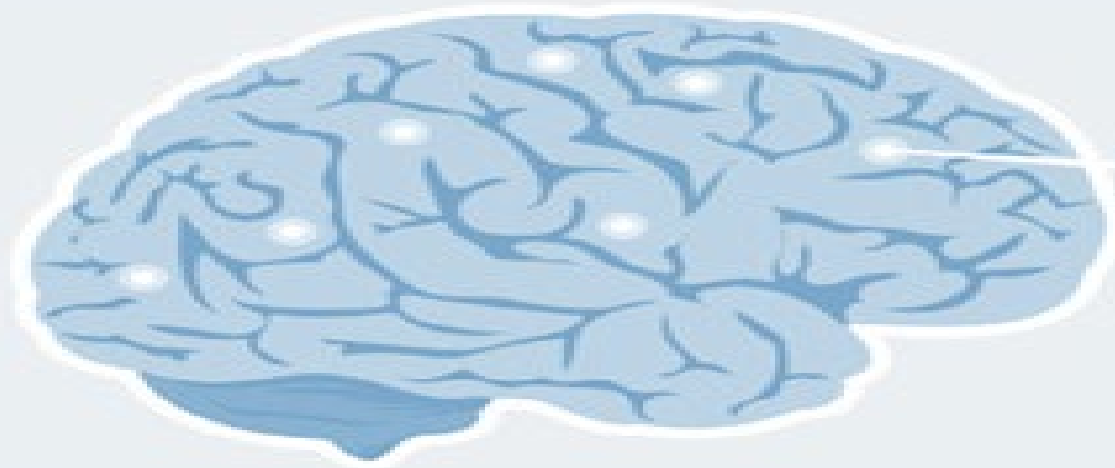
Methadone and Suboxone act as opioid agonists: They keep the client from experiencing opioid withdrawal symptoms (also called “dope sickness”) and block the euphoric effects should the client use heroin or another opioid, thus discouraging the client from continuing use

- **Neither of these chemicals, when used as prescribed, will get the client high**

However, methadone and buprenorphine are the most-regulated medicines in the U.S. when used for treating SUD

Both chemicals allow the brain to heal from opioid use and provide opportunities for the client to address the underlying causes of their SUD

How OUD Medications Work in the Brain



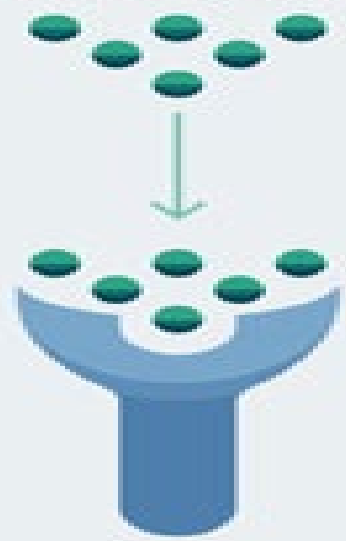
Empty opioid receptor

Methadone



Full agonist: generates effect

Buprenorphine



Partial agonist: generates limited effect

Naltrexone



Antagonist: blocks effect

Methadone

“Methadone has the strongest evidence base of any opioid addiction treatment” (Andraka-Christou, 2020, p. 52)

Delivered in liquid or pill form in Opioid Treatment Programs (OTPs)

Long-term effects: 24 – 36 hours

- This allows the client to work, attend school, parent, and engage in pro-social activities as opposed to purchasing, using and recovering from illicit opioid use
- Responsible for some opioid overdose deaths, since Methadone accumulates in tissues before binding to plasma proteins
- Withdrawal develops slowly and is prolonged compared to heroin

Buprenorphine

An **opioid agonist** in low doses and an **antagonist** in high doses, often combined with Naloxone: Suboxone[®]

- In this formulation, should the patient try to inject or insufflate the drug (instead of taking it orally), they will go into withdrawal symptoms (but people have found ways around this) (Kavanaugh & McLean, 2020)
- Suboxone is delivered in a buccal film or pill
- Less respiratory depression than Methadone

Has a “ceiling effect” (at 32 mg) which makes overdose less likely—except when mixed with alcohol

In 2017, the Food and Drug Administration approved Sublocade[®], an injectable form of buprenorphine

Buprenorphine Treatment

“Buprenorphine has fewer clinically relevant drug interactions than methadone in general” (SAMHSA, 2021, p. 3-54)

Treatment should last for as long as patients benefit from treatment

Longer treatment length is associated with positive treatment outcomes

Typical maintenance doses range from 4 mg/1 mg to 24 mg/6 mg per day. An effective dose is the lowest dose that can:

- Eliminate withdrawal
- Reduce or eliminate opioid cravings
- Reduce or stop illicit opioid use’s desirable effects
- Be well tolerated

(SAMHSA, 2021, p.3-68)

Naltrexone

“Oral naltrexone is not widely used to treat opioid use disorder (OUD) because of low rates of patient acceptance, difficulty in achieving abstinence for the necessary time before initiation of treatment, and high rates of medication nonadherence” (SAMHSA, 2021, p. 3-37)

Depot injections of extended-release naltrexone are more effective than oral naltrexone

While naltrexone works to block opioid receptors, clients may consume large amounts of opioids to try and override naltrexone’s ability to block the receptor

Last Word on MOUD

“It would be inappropriate for a medical team to refuse radiation for cancer patients because the team believes chemotherapy is always needed, or to refuse chemotherapy because they believe that radiation is always needed, regardless of each patient’s diagnosis and condition. It would be just as inappropriate to refuse evidence-based treatment with medication for a patient with OUD, when that may be the most clinically appropriate course of treatment.”

(SAMHSA, 2021, p. 4-25)

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