

**WHEN ONE PLUS ONE EQUALS  
THREE: THE CHIMERISM OF CO-  
OCCURRING DISORDERS**

*Friday, June 23, 2023*

Lester E. Love, M.D.

African-American Training & Technical  
Assistance

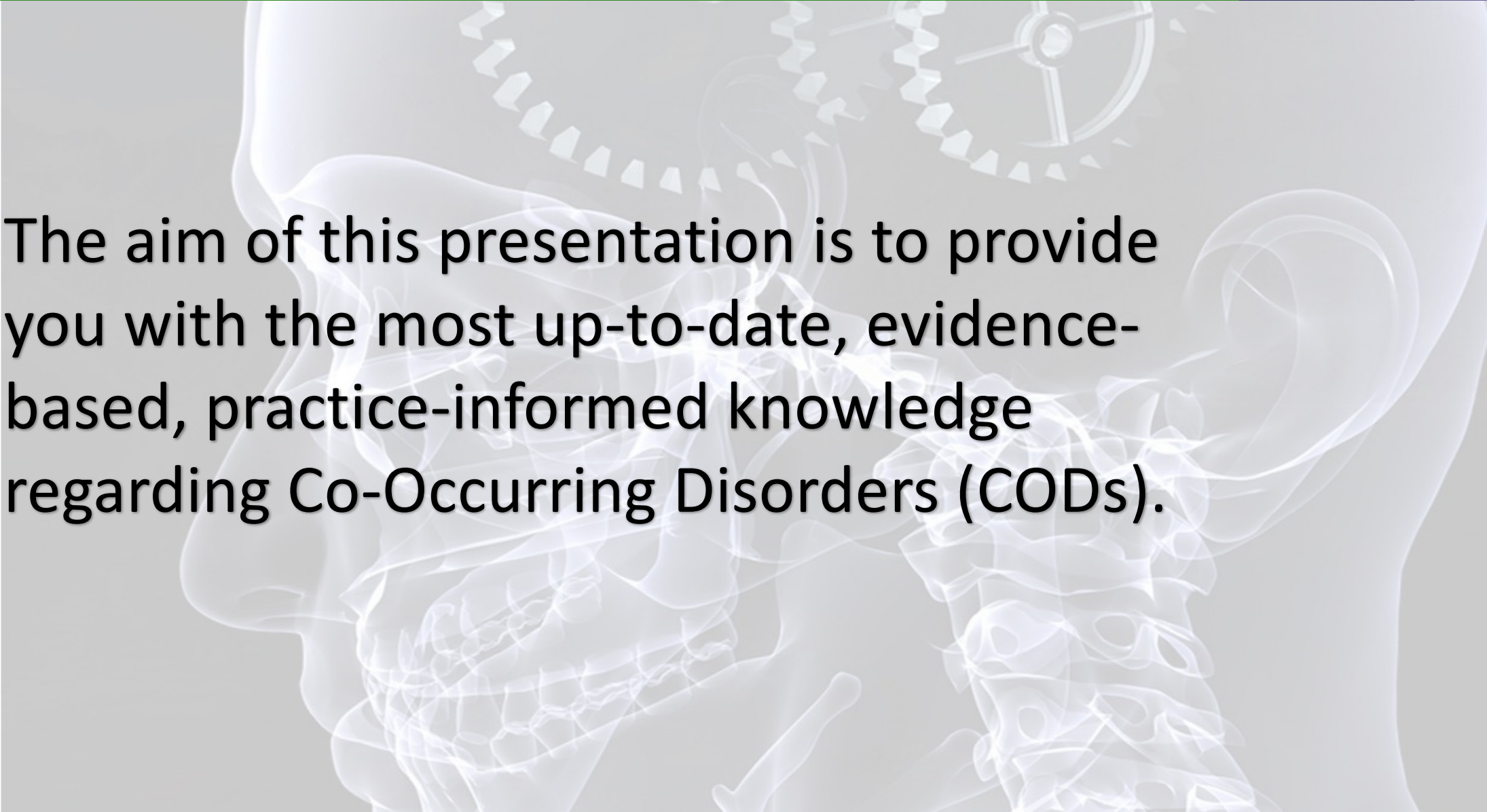


Co-Occurring Disorders

# INTRODUCTION

# Primary Goal

The aim of this presentation is to provide you with the most up-to-date, evidence-based, practice-informed knowledge regarding Co-Occurring Disorders (CODs).

The background of the slide features a stylized, semi-transparent illustration of a human head in profile, facing left. Inside the head, there are several interlocking gears of various sizes, suggesting a mechanical or cognitive process. Additionally, there are faint, glowing lines and patterns that resemble neural pathways or a complex network, overlaid on the head's structure. The overall aesthetic is clean and modern, with a focus on the intersection of biology and technology or cognitive science.

# How Will We Accomplish Our Primary Goal?

By using evidence-based knowledge to answer these and related questions:

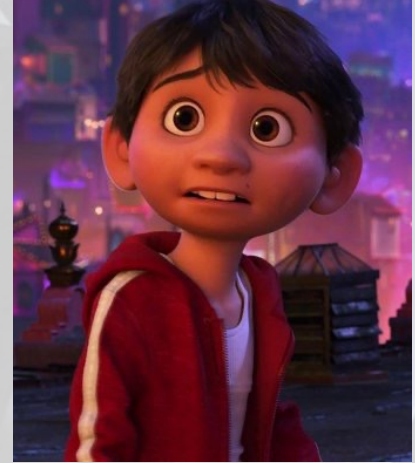
- 1) How do the World Health Organization (WHO) and the Substance Abuse and Mental Health Services Administration (SAMSHA) define COD?
- 2) Why is the identification of CODs important, and what are the associated complications?
- 3) How are CODs diagnosed, and what factors complicate the process?
- 4) How do you non-pharmacologically and pharmacologically treat CODs?
- 5) Where do race and the diagnosis and treatment of CODs intersect?

# Case Example of Co-Occurring Disorders

The Confounding Case of Mr. S. (audio to be included). . .

Important questions:

- 1) Is this a substance-induced psychotic disorder, or is it the onset of a psychotic personality disorder?
- 2) What is the course and prognosis?
- 3) Does a psychotic disorder better explain this condition due to another medical (HIV, hepatitis, others) or another DSM-5 Tr condition?



# *Co-Occurring Disorders: Big Picture 2022 (1)*

a) Quadruples

b) Triples

c) 50%

d) 50%

e) 25-33%

# Co-Occurring Disorders: Big Picture 2022 (2)



- According to the President's New Freedom Commission on Mental Health:

“State-of-the-art treatments, based on decades of research, are not being transferred from research to community settings.”

- According to the President's New Freedom Commission on Mental Health:

“If effective treatments were more efficiently delivered through our mental health services system . . . millions of Americans would be more successful in school, at work, and in their communities.”

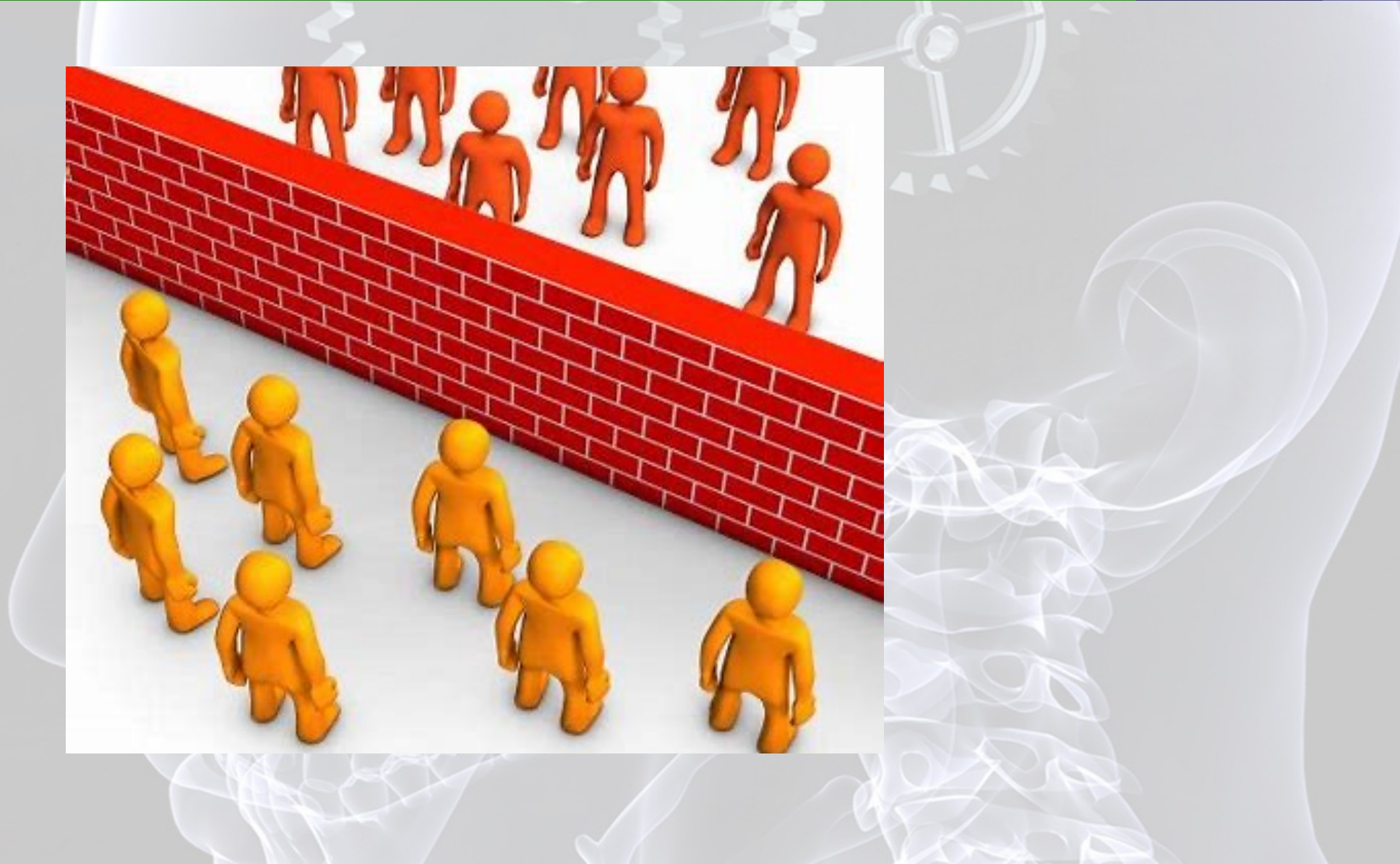


If you don't THINK about it, you won't ASK about it, and you don't ask about it, you won't DO anything about it.

Co-Occurring Disorders



# The Wall of Health Care



Co-Occurring Disorders

# QUESTIONS

# Question 1

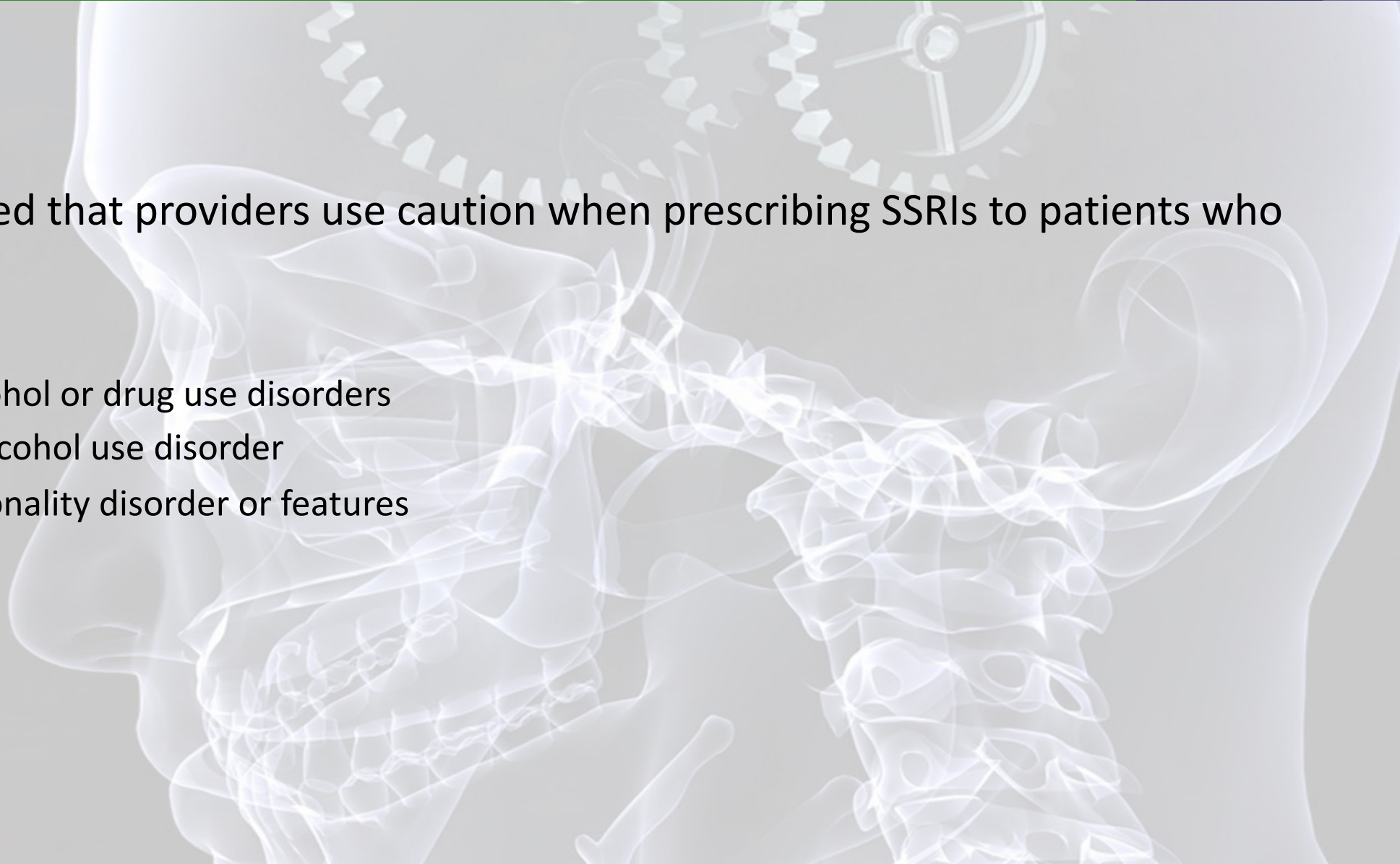
Which of the following statements is false:

- a) Cocaine decreases negative symptoms in individuals with schizophrenia.
- b) When cocaine-free, individuals with schizophrenia have more negative symptoms.
- c) Chronic cocaine use increases depression in individuals with schizophrenia
- d) Chronic cocaine decreases positive symptoms of schizophrenia.

# Question 2

It is recommended that providers use caution when prescribing SSRIs to patients who have:

- a) Early-onset alcohol or drug use disorders
- b) Co-Occurring alcohol use disorder
- c) Antisocial personality disorder or features
- d) A and C
- e) A and B



# Question 3

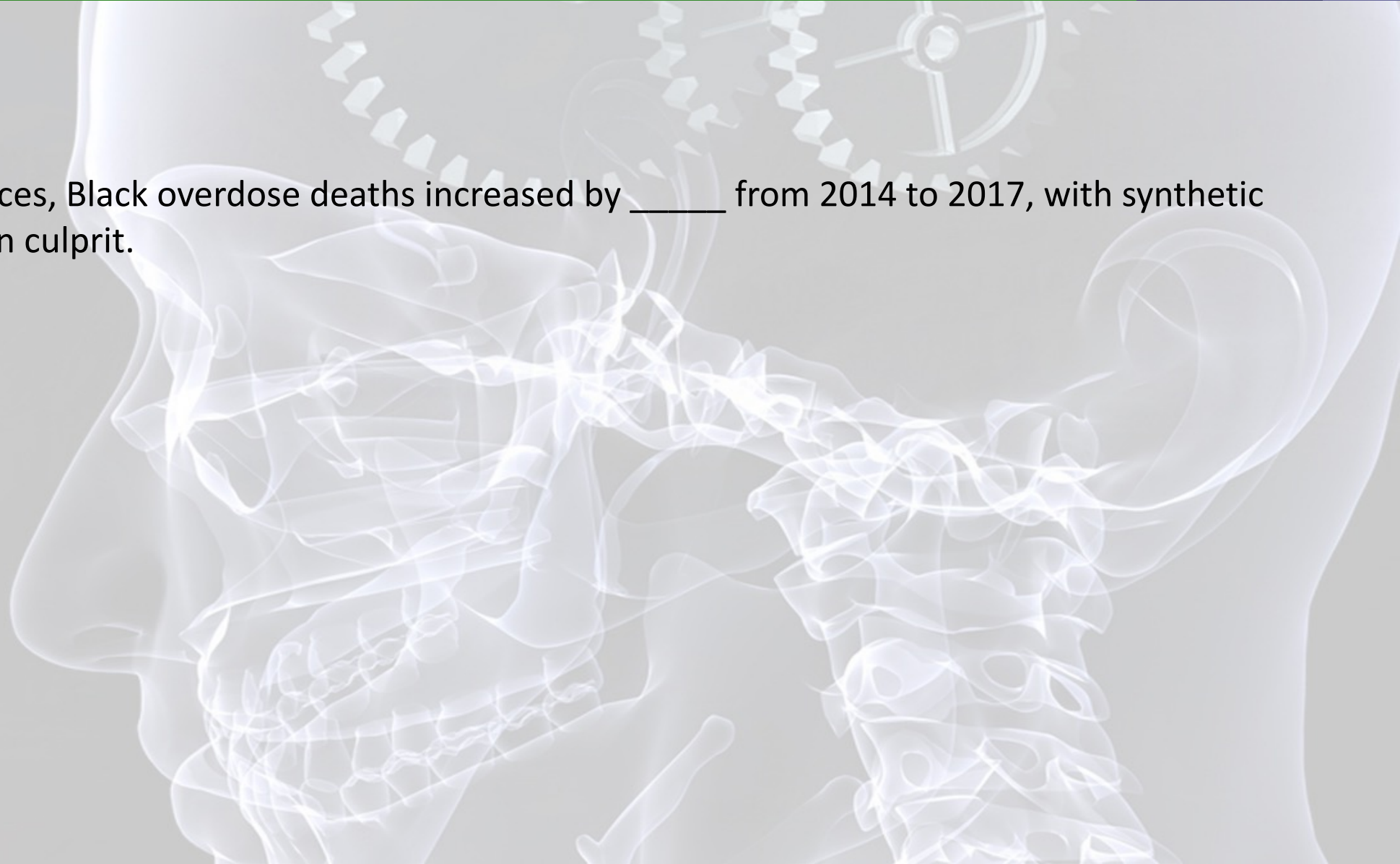
Reasons for diagnostic confusion in substance use and psychiatric disorders are:

- a) Alcohol/drug intoxication or withdrawal can cause psychiatric symptoms in anyone (acute toxicity)
- b) Prolonged alcohol/drug use can cause short- or long-term psychiatric illness.
- c) Alcohol/drug use can escalate in episodes of psychiatric illness.
- d) Substance use disorders sometimes co-occur with mental illness as an independent disorder.
- e) All the above

# Question 4

Compared to other races, Black overdose deaths increased by \_\_\_\_\_ from 2014 to 2017, with synthetic opioids being the main culprit.

- a) 10%
- b) 1500%
- c) 80%
- d) 818%
- e) 35%



# Question 5

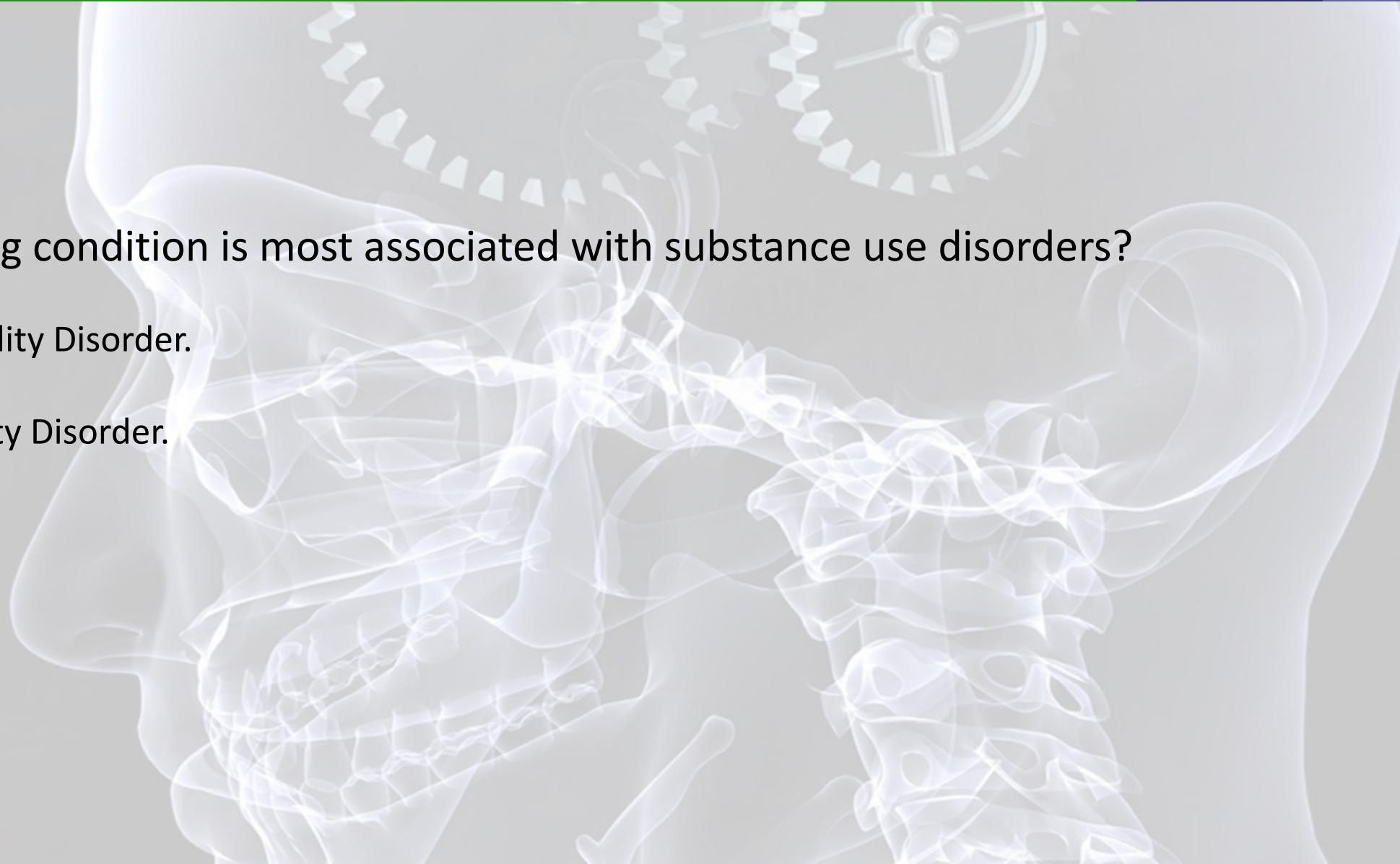
In primary alcohol use disorder, what is the most experienced anxiety symptom?

- a) Panic while drinking.
- b) Panic while not drinking.
- c) General anxiety while drinking.
- d) Shortness of breath and palpitations associated with withdrawal.
- e) Agoraphobia while intoxicated or in withdrawal.

# Question 6

Which co-occurring condition is most associated with substance use disorders?

- a) Antisocial Personality Disorder.
- b) Bipolar Disorder.
- c) Generalized Anxiety Disorder.
- d) Agoraphobia.
- e) Dementia.





# Question 7

Which of the following statements is true?

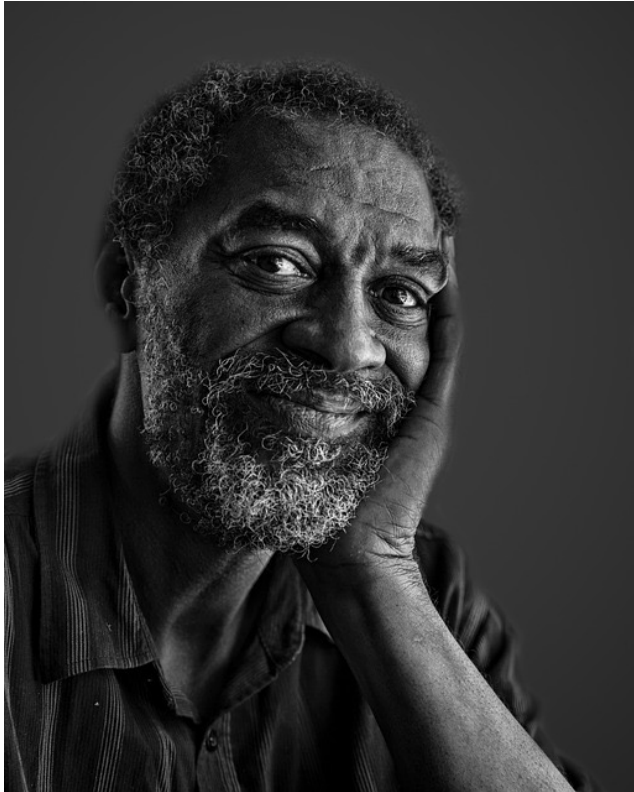
- a) An individual with a substance use disorder is at least two times more likely to have a second psychiatric disorder than an individual without a substance use disorder.
- b) Psychotherapy within therapeutic communities is effective in treating opiate use disorders.
- c) Recovery Capital refers to the safest place an individual should live when getting out of a treatment program.
- d) One can tell by how much someone drinks if they have a mild, moderate, or severe alcohol use disorder.
- e) The proportion of users who ever became dependent (from high to low) is nicotine, heroin, cocaine, alcohol, marijuana.

# Question 8

Which of the following statements is false:

- a) Psychiatric disorders can cause substance use disorders.
- b) Substance use can cause psychiatric disorders.
- c) If both a substance use disorder and a psychiatric disorder are present, treating the psychiatric disorder is usually not necessary.
- d) Treating an underlying psychiatric disorder usually does not adequately treat the substance use disorder.

# Race and Co-Occurring Disorders



Twenty-five to  
Thirty-three  
percent less likely

Mental Health  
Or  
Substance Use Disorder  
Or  
Co-Occurring Disorder  
Treatment



# Introduction: The Good News



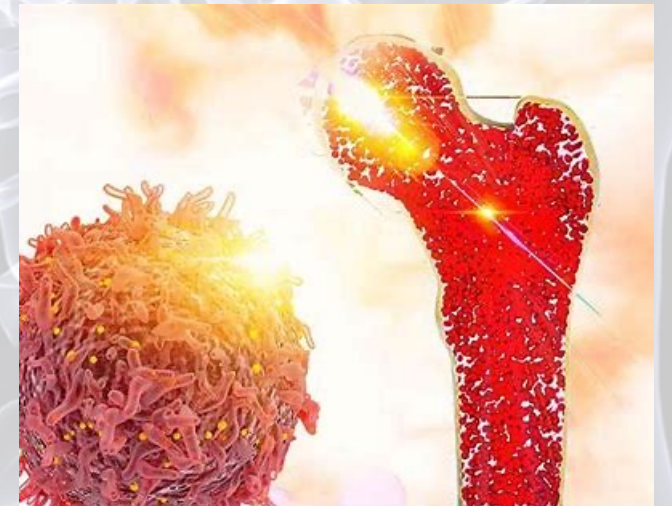
The Impact of A 4-Week Intensive Psychiatric Resident Rotation on Clinical Outcomes of a Substance Abuse Intensive Outpatient Program (SAIOP)  
Jose R. Feliberti, MD1, Juan R. Sosa, MD2, Lester E. Love, MD3 and Donald M. Hilty, MD, MBA

Co-Occurring Disorders

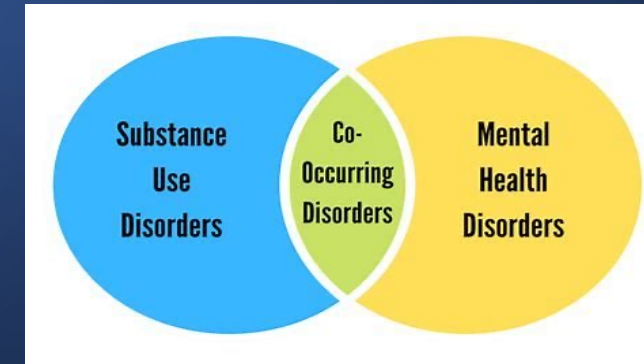
# DEFINING



# Definition of Co-Occurring Disorders – The Chimera



# Definition of Co-Occurring Disorders



SAMHSA defines people with “co-occurring disorders” as individuals who have at least one mental disorder, as well as at least one alcohol or drug use disorder.

While these disorders may interact differently in any one person at least one disorder of each type can be diagnosed independently of the other

Co-Occurring Disorders

# PROGNOSIS





# Prognosis of Co-Occurring Disorders



Experience impaired overall functioning.
Have a lower quality of life.
Have significantly higher suicide rates.
Have more acute and chronic medical conditions.
More isolation from social interactions.
Greater housing instability.

Experience impaired overall functioning.

Have a lower quality of life.

Have significantly higher suicide rates.

Have more acute and chronic medical conditions.

More isolation from social interactions.

Greater housing instability.

# Prognosis of Co-Occurring Disorders



More likely to abandon treatment early.

Have higher rates of return to use.

Have poor physical and mental health treatment outcomes.

Are more likely to be medication non-adherent.

Have more frequent cycling between affective episodes.

Have increased symptom severity.

# Prognosis of Co-Occurring Disorders



Relapses associated with severe symptoms are more likely to occur.

Problems related to finances.

Increased ER visits and hospital admissions.

Greater risk of being either a victim and/or perpetrator of violence.

Greater involvement in the criminal justice system.

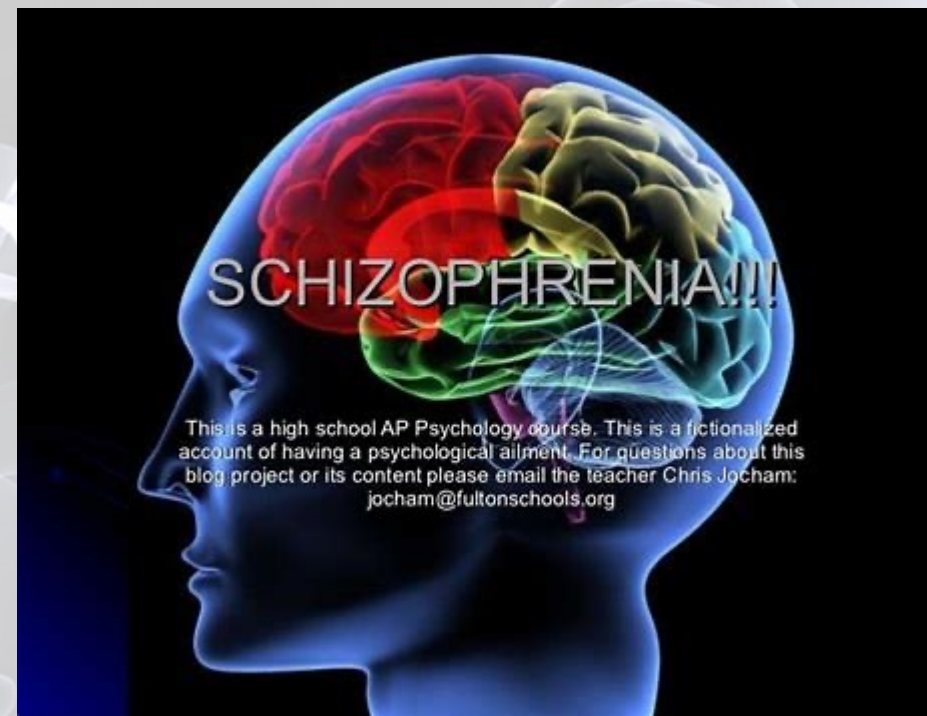
# *Co-Occurring Disorders: “Relapse”*



# Psychostimulants and Negative Symptoms of Schizophrenia



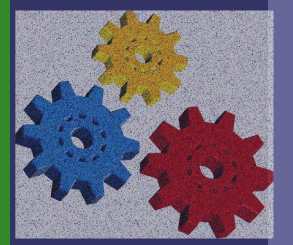
+



# Worsen Outcomes

- Co-Occurring disorder patients generally do worse (Ritsher et al 2002; Schaar and Ojehagen 2001).
  - Maybe not for severely and persistently mentally ill (Farris et al 2003; Gonzalez and Rosenheck 2002)
  - Probably not for antisocial personality disorder (Cacciola et al 1995; Kranzler et al 1996)
  - Even subclinical depression worsens alcohol use disorder outcomes (Brown et al 1998; Curran et al 2000).
  - Major Depressive Disorder in remission does not worsen outcomes (Hasin et al 2004).

# Prognosis of Co-Occurring Disorders: The Complex, Unstable, and Bidirectional Nature of Co-Occurring Disorders



- Mental Health disorder causes substance use disorder.
  - Self-medication hypothesis (Khantzian 1985, 1997)
  - Some patients use substances to enhance their psychiatric symptoms, e.g., bipolar mania, antisocial personality (Weiss et al 1986, 1988).
  - Impaired judgment or appreciation of consequences
  - Psychopathology exacerbates withdrawal (opponent process theory)
  - Sensitization of reward circuitry.
- Substance use disorder causes Mental Health disorder.
  - Psychiatric symptoms may result from chronic intoxication or withdrawal.
  - Long-term neuropsychiatric sequelae of substance use may result in psychopathology.
  - Sensitization of the hypothalamic-pituitary-adrenal axis
  - Exposure to traumatic/stressful events (Cottier et al 1992).
  - Common cause (genetic, environmental, developmental)
  - The two are unrelated.



Co-Occurring Disorders

# **EPIDEMIOLOGY**



# Big Picture 2022



Most Common and Significant



Two Out Five People



One Out of Ten People

# Big Picture 2022



+



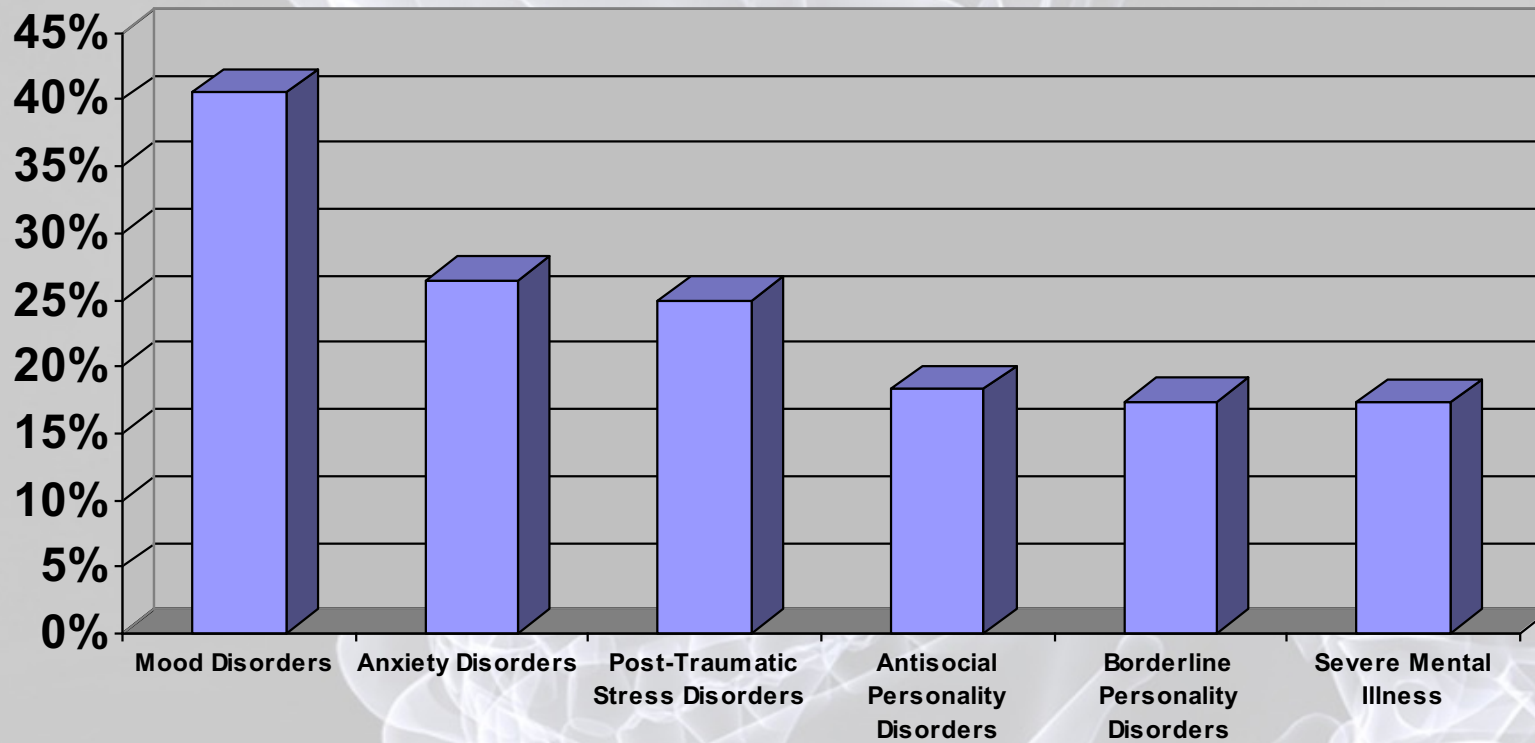
+



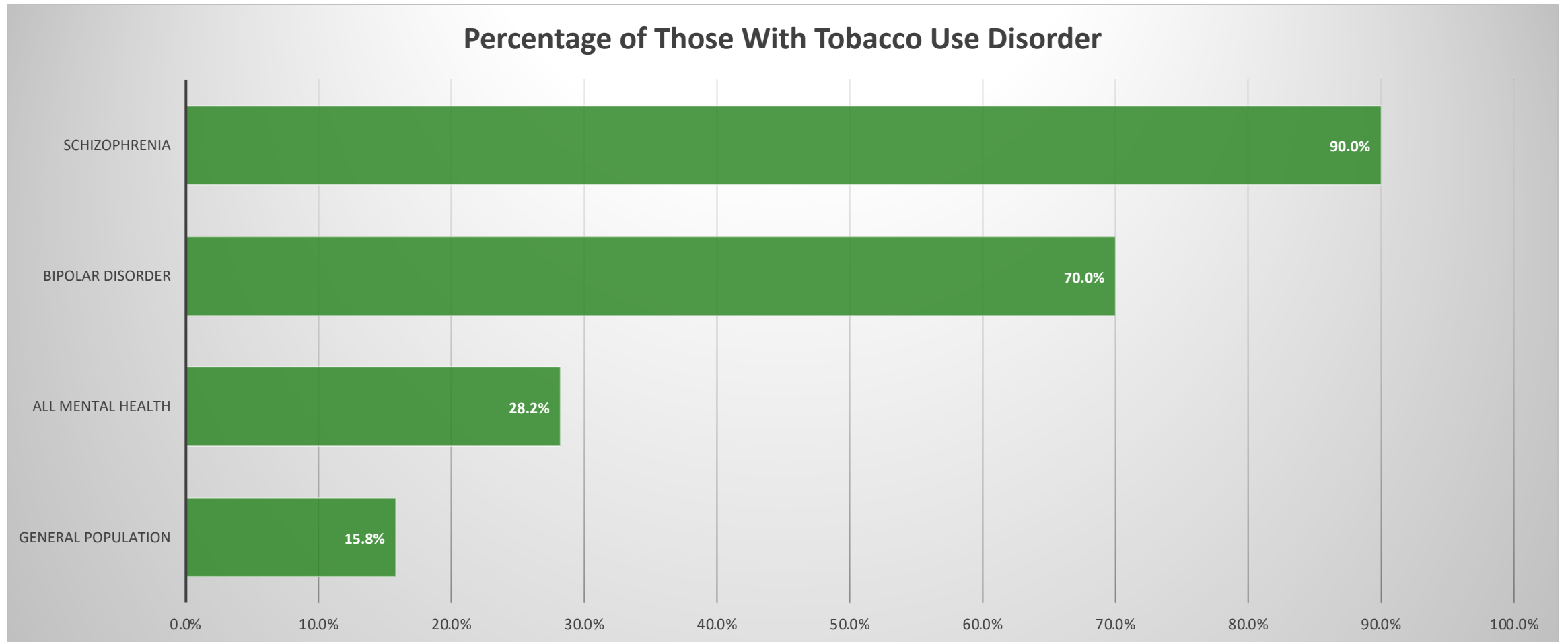
# *Co-Occurring Disorders: 2019 Population Estimates*

- Approximately 10 million people in the U.S. have co-occurring substance and serious and persistent mental health disorders (SAMHSA).
  - 10 million affected by two illnesses
  - 3 million affected by three illnesses
  - 1 million affected by four or more illnesses
- When patients with other mental disorders are considered, (anxiety disorders, personality disorders) these numbers are even higher.

# Substance Use Disorder Treatment Provider Estimates by Psychiatric Disorder



# Tobacco Use Disorder



# Gateway Drugs and Later Substance Use Disorders

- Alcohol, nicotine, marijuana.
- Use before age 15.
- Earlier use increases the risk of progression to a substance use disorder.
- Risk of substance use disorder varies by drug.

# Anxiety In One Hundred Seventy One Patients with Alcohol Use Disorder

## Symptom

- Withdrawal palpitations and/or shortness of breath 80%
- Panic while drinking 4%
- Panic while not drinking 2%
- Generalized anxiety while not drinking 4%

*Source: Brown S, Schuckit M. J Stud Alcohol. 1990;51:34-41.*

# Epidemiology of Co-Occurring Disorders

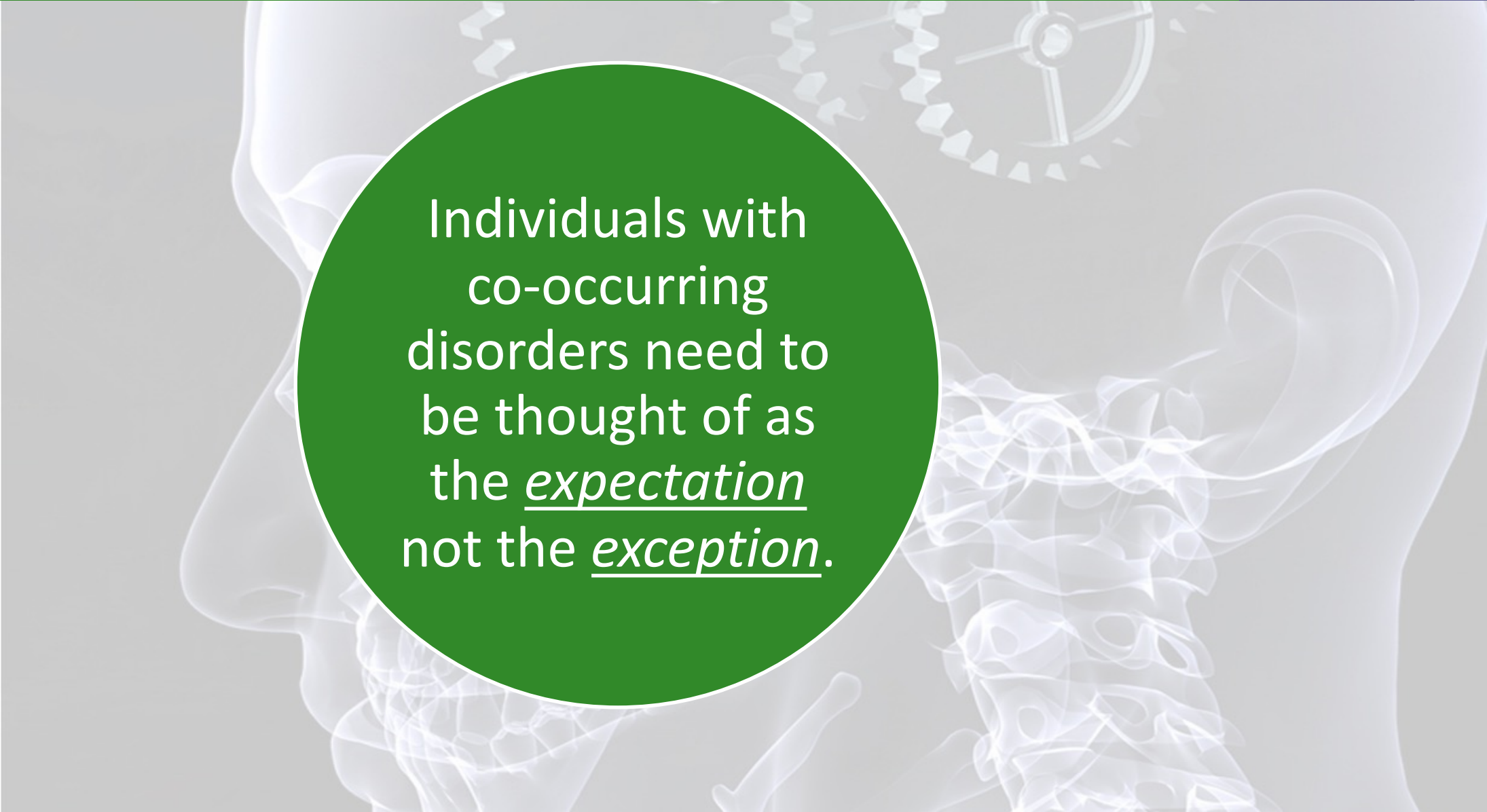


Most comorbidity (co-occurring disorders) is accounted for by Antisocial Personality Disorder and another substance use disorder ~ 85%.





# In Summary . . .



Individuals with  
co-occurring  
disorders need to  
be thought of as  
the expectation  
not the exception.

Co-Occurring Disorders

**RACE**



# Race, Racism, and COD

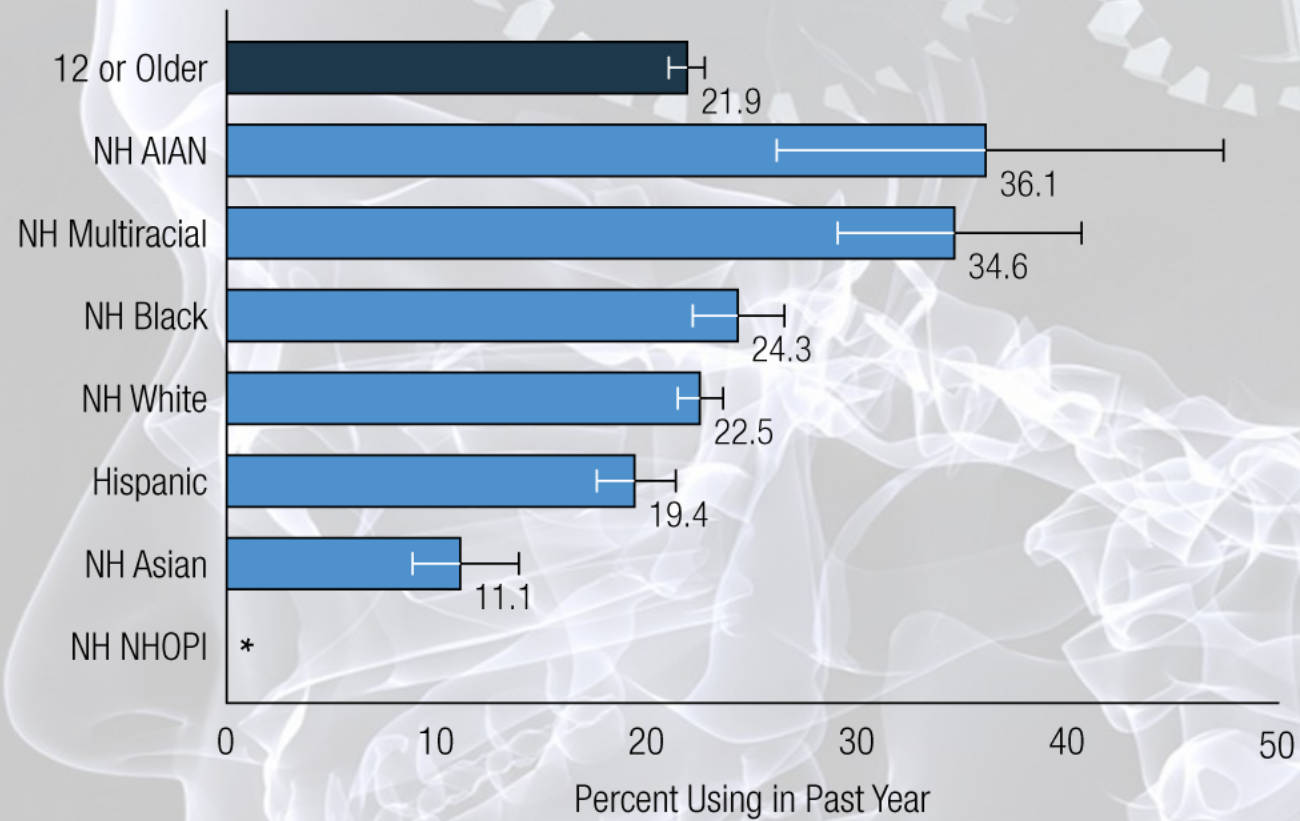
- **Racial Disparities and COD**
  - Burden of substance use disorder/COD in Black, Hispanic, and Indigenous people
  - Race and substance use disorder treatment, availability, retention, and outcomes
- **Structural factors:**
  - The war on drugs: Treatment versus punishment
  - Racism and stress
  - Bias within substance use treatment systems

# Race, Racism, and COD

- From 1999 to 2001, Black people in Metropolitan areas had higher substance related death rates compared to other racial groups. Overdose death rates from 2014 to 2017 increased in the black population, with the sharpest rise from synthetic opioids, increasing by 818% compared to other races.

- Mack KA, Jones CM, Ballesteros MF. Illicit Drug Use, Illicit Drug Use Disorders, and Drug Overdose Deaths in Metropolitan and Nonmetropolitan Areas - United States. *MMWR Surveill Summ.* 2017 Oct 20;66(19):1-12. doi: 10.15585/mmwr.ss6619a1. Erratum in: *MMWR Morb Mortal Wkly Rep.* 2017 Nov 17;66(45):1262. PMID: 29049278; PMCID: PMC5829955.
- Zemore SE, Karriker-Jaffe KJ, Mulia N, Kerr WC, Ehlers CL, Cook WK, Martinez P, Lui C, Greenfield TK. The Future of Research on Alcohol-Related Disparities Across U.S. Racial/Ethnic Groups: A Plan of Attack. *J Stud Alcohol Drugs.* 2018 Jan;79(1):7-21. doi: 10.15288/jsad.2018.79.7. PMID: 29227222; PMCID: PMC5894859.
- Scholl L, Seth P, Kariisa M, Wilson N, Baldwin G. Drug and Opioid-Involved Overdose Deaths - United States, 2013-2017. *MMWR Morb Mortal Wkly Rep.* 2018 Jan 4;67(5152):1419-1427. doi: 10.15585/mmwr.mm675152e1. PMID: 30605448; PMCID: PMC6334822.

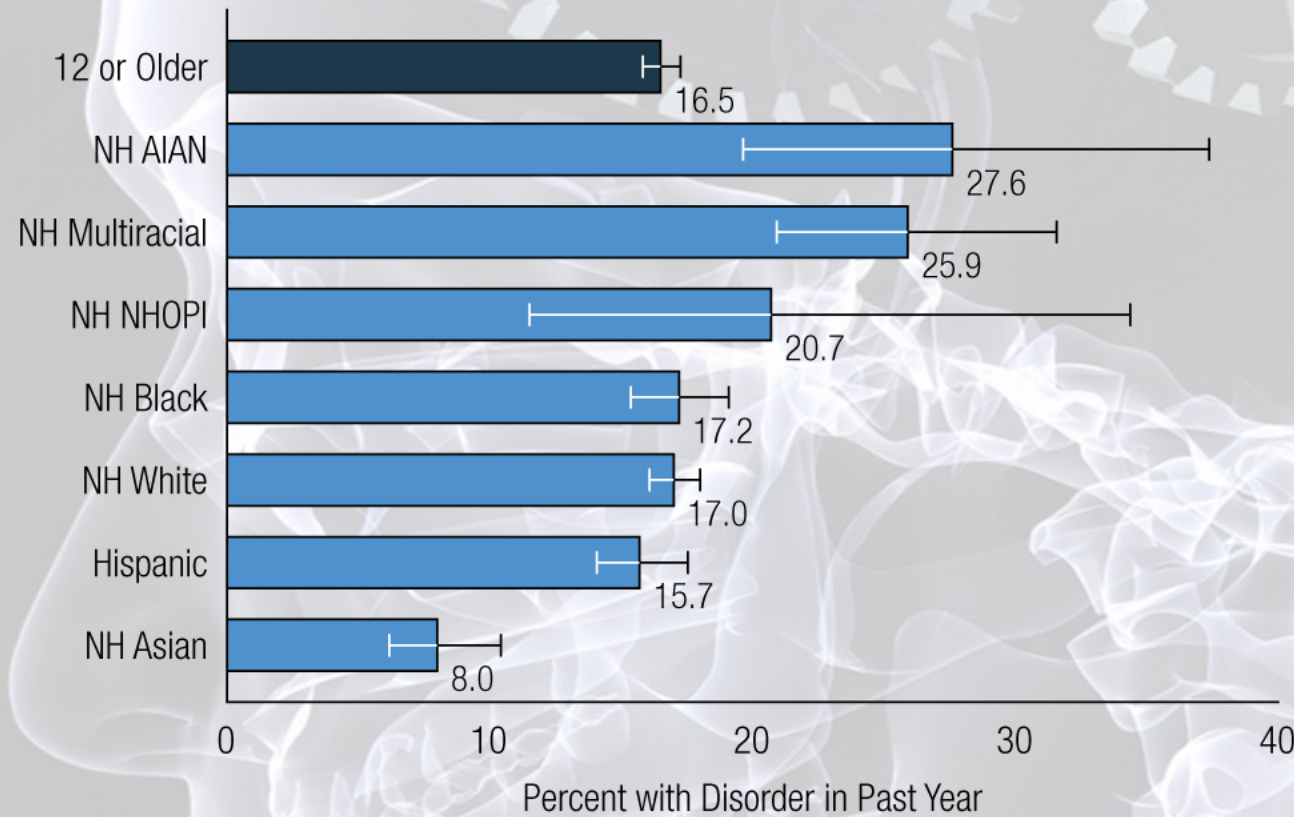
# Past Year Illicit Drug Use: Among People Aged 12 or Older; by Race/Ethnicity, 2021



\* Low precision; no estimate reported.

AIAN = American Indian or Alaska Native; Black = Black or African American; Hispanic = Hispanic or Latino; NH = Not Hispanic or Latino; NHOPI = Native Hawaiian or Other Pacific Islander.

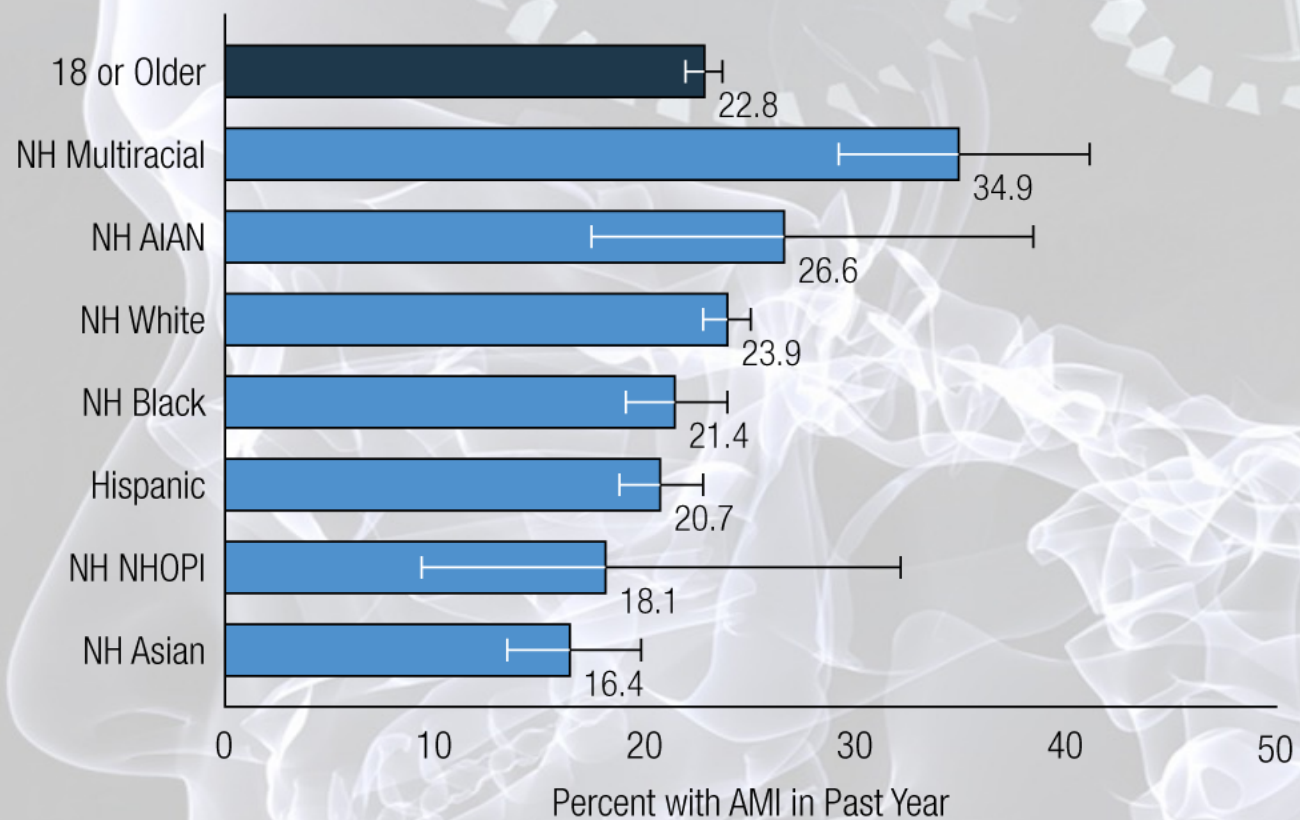
# Past Year Substance Use Disorder: Among People Aged 12 or Older; by Race/Ethnicity, 2021



• AIAN = American Indian or Alaska Native; Black = Black or African American; Hispanic = Hispanic or Latino; NH = Not Hispanic or Latino; NHOPI = Native Hawaiian or Other Pacific Islander.

• Note: Error bars were calculated as 99 percent confidence intervals. Wider error bars indicate less precise estimates. Large apparent differences between

# Any Mental Illness (AMI): Among Adults Aged 18 or Older; by Race/Ethnicity, 2021



• AIAN = American Indian or Alaska Native; Black = Black or African American; Hispanic = Hispanic or Latino; NH = Not Hispanic or Latino; NHOPI = Native Hawaiian or Other Pacific Islander.

• Note: Error bars were calculated as 99 percent confidence intervals. Wider error bars indicate less precise estimates. Large apparent differences between groups

# The Co-Occurring Numbers in 2021

**Table B.19B Substance Use Disorder (SUD) and Any Mental Illness (AMI) in the Past Year: Among Adults Aged 18 or Older; by Race/Ethnicity, 2021**

Characteristic	SUD or AMI		SUD but No AMI		AMI but No SUD		SUD and AMI	
<b>TOTAL</b>	32.5	(0.40)	9.7	(0.23)	15.1	(0.30)	7.6	(0.19)
<b>HISPANIC ORIGIN AND RACE</b>								
Not Hispanic or Latino	32.9	(0.42)	9.7	(0.25)	15.5	(0.31)	7.7	(0.22)
White	33.6	(0.51)	9.8	(0.30)	16.0	(0.38)	7.9	(0.24)
Black or African American	32.3	(1.08)	10.9	(0.64)	13.9	(0.81)	7.4	(0.58)
American Indian or Alaska Native	45.3	(4.74)	18.6	(3.05)	16.3	(3.65)	10.4	(2.17)
Native Hawaiian or Other Pacific Islander	*	(*)	9.7	(3.11)	7.9	(2.68)	10.2	(3.50)
Asian	21.4	(1.37)	5.0	(0.73)	12.9	(1.14)	3.5	(0.57)
Multiracial <sup>1</sup>	48.0	(2.47)	13.1	(1.87)	18.6	(1.68)	16.3	(2.05)
Hispanic or Latino <sup>2</sup>	30.3	(0.95)	9.6	(0.61)	13.5	(0.69)	7.2	(0.46)

\* Low precision; no estimate reported.

NOTE: Estimates shown are percentages with standard errors included in parentheses.

NOTE: Additional estimates may be found in *Results from the 2021 National Survey on Drug Use and Health: Detailed Tables* at <https://www.samhsa.gov/data/report/2021-nsduh-detailed-tables>. Measures and terms are defined in Appendix A of the 2021 Detailed Tables.

NOTE: SUD estimates are based on criteria from the *Diagnostic and Statistical Manual of Mental Disorders*, 5th edition (DSM-5). Beginning with the 2021 NSDUH, questions on prescription drug use disorder were asked of all past year users of prescription drugs, regardless of whether they misused prescription drugs. These estimates include prescription drug use data from all past year users of prescription drugs. See the *2021 National Survey on Drug Use and Health (NSDUH): Methodological Summary and Definitions* for details on these changes.

NOTE: AMI aligns with criteria from DSM-IV and is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder. These mental illness estimates are based on a predictive model and are not direct measures of diagnostic status.

<sup>1</sup> Multiracial refers to people not of Hispanic or Latino ethnicity who reported two or more races.

<sup>2</sup> People who reported Hispanic or Latino ethnicity could be of any race.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2021.



# Results from the 2019 National Survey on Drug Use and Health

- 10.4% of adults aged 18 or older had a co-occurring mental illness and substance use disorder.

## By race and ethnicity:

- White: 12.6%
- Black or African American: 17.8%
- Hispanic or Latino: 14.5%
- Asian: 7.8%
- Native American or Alaska Native: 15.5%

\* National Institute on Drug Abuse: <https://www.drugabuse.gov/>

\* National Institute of Mental Health: <https://www.nimh.nih.gov/>

\* Substance Abuse and Mental Health Services Administration: <https://www.samhsa.gov/>

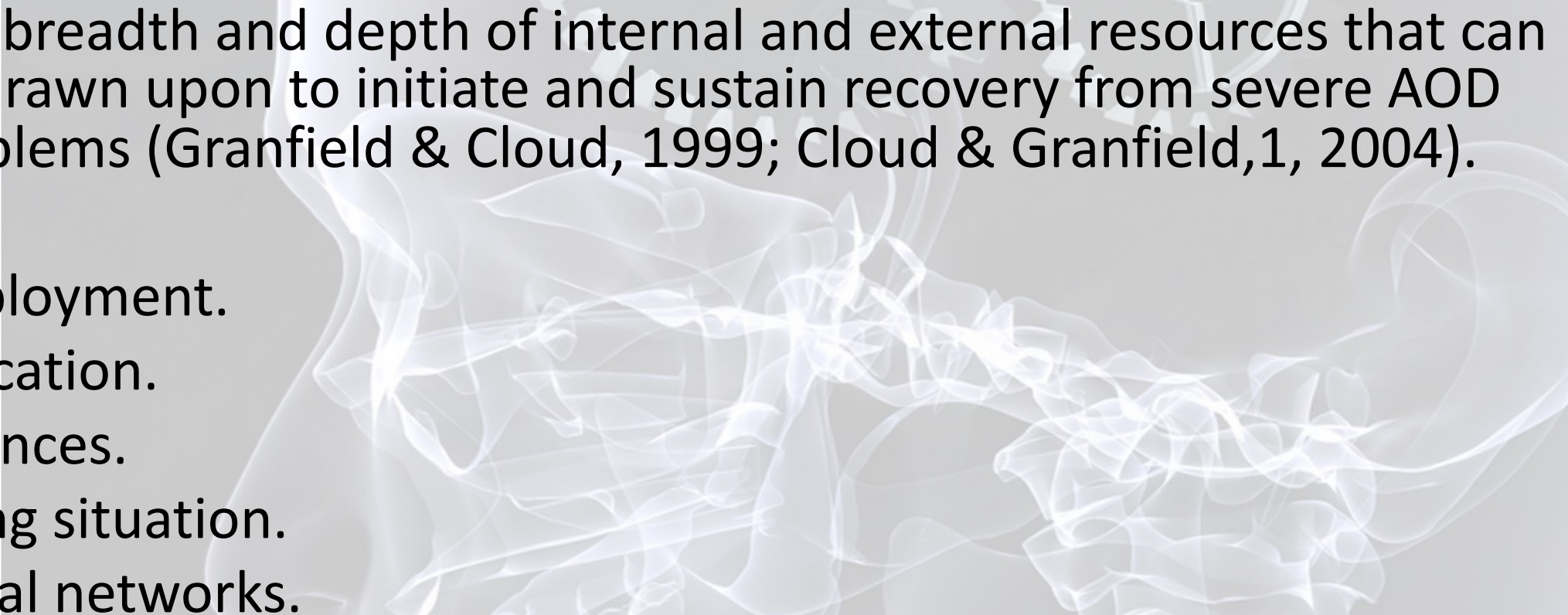
# What is Statistical Significance?

$$f(x) = a_0 + \sum_{n=1}^{\infty} \left( a_n \cos \frac{n\pi x}{L} + b_n \sin \frac{n\pi x}{L} \right)$$

$$\sin \alpha \pm \sin \beta = 2 \sin \frac{1}{2} (\alpha \pm \beta) \cos \frac{1}{2} (\alpha \mp \beta)$$

$$(1 + x)^n = 1 + \frac{nx}{1!} + \frac{n(n-1)x^2}{2!} + \dots$$

# Recovery Capital: Race and Treatment Success

- The breadth and depth of internal and external resources that can be drawn upon to initiate and sustain recovery from severe AOD problems (Granfield & Cloud, 1999; Cloud & Granfield, 1, 2004).
  - Employment.
  - Education.
  - Finances.
  - Living situation.
  - Social networks.
- 

Co-Occurring Disorders

# DIAGNOSIS



# Diagnosis of a Substance Use Disorder

## DSM-5 Criteria for Opioid Use Disorder

1	Opioids are often taken in larger amounts or over a longer period than was intended	The presence of at least 2 of these symptoms indicates an Opioid Use Disorder (OUD)
2	There is a persistent desire or unsuccessful efforts to cut down or control opioid use	
3	A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects	
4	Craving or a strong desire to use opioids	
5	Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school, or home	
6	Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids	The severity of the OUD is defined as:
7	Important social, occupational, or recreational activities are given up or reduced because of opioid use	MILD: The presence of 2 to 3 symptoms
8	Recurrent opioid use in situations in which it is physically hazardous	
9	Continued use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by opioids.	MODERATE: The presence of 4 to 5 symptoms
10	Tolerance,* as defined by either of the following: a) Need for markedly increased amounts of opioids to achieve intoxication or desired effect b) Markedly diminished effect with continued use of the same amount of opioid	
11	Withdrawal,* as manifested by either of the following: a) Characteristic opioid withdrawal syndrome b) Same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms	SEVERE: The presence of 6 or more symptoms

# Severity and Remission of Illness



### DSM 5 CRITERIA FOR SUBSTANCE USE DISORDER ....CONT.

7. Important social, occupational, or recreational activities are given up or reduced because of \_\_\_\_\_ use.

8. Mild Substance Use Disorder	2 – 3 Symptoms
9. Moderate Substance Use Disorder	4-5 Symptoms
10. Severe Substance Use Disorder	>6 Symptoms

11. \_\_\_\_\_ is taken to relieve or avoid withdrawal symptoms.

**ABSENT** **PRESENT**

# Case Example of Co-Occurring Disorders

The patient is a 45-year-old male who has regularly used cocaine for five years. He fears he is being watched at all times, and he appears to be depressed. While defending himself from an "intruder" in his truck, he stabbed himself. An officer who witnessed the stabbing brought him to the hospital. There was no evidence of an intruder

Important questions:

1. Is it possible that psychiatric symptoms preceded his ongoing cocaine use?
2. Have there been any periods of time in the last five years when he had psychiatric symptoms and had not used cocaine for at least four weeks?
3. In your opinion, what is the presumptive diagnosis?

# Possible Relation Between Substance Use Disorders and Other Psychiatric Disorders

Some psychiatric disorders causes substance use disorders.

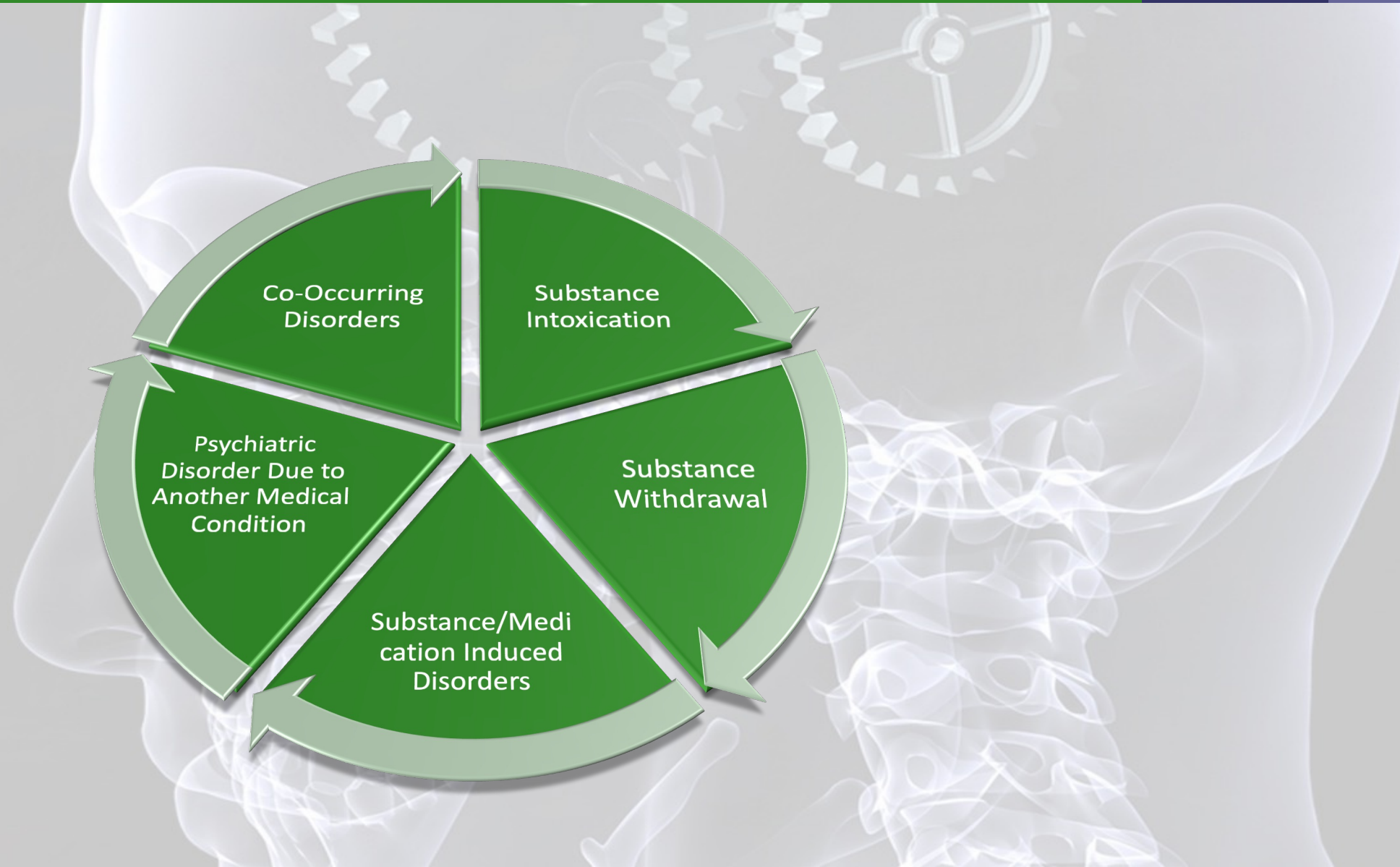
Some substance use disorders causes other psychiatric disorders.

Both caused by common underlying disorder

Both occur independent of the other



# Diagnosis/Differential Diagnosis



# Diagnosis/Differential Diagnosis: Substance-Induced Mental Disorders

1. Substance/Medication-Induced Delirium
2. Substance/Medication-Induced Major or Mild Neurocognitive Disorder
  - a. Non-amnestic-Confabulatory Type
  - b. Amnestic-Confabulatory Type
3. Substance/Medication-Induced Persisting Amnestic Disorder
4. Substance/Medication-Induced Psychotic Disorder
5. Substance/Medication-Induced Depressive Disorder
6. Substance/Medication-Induced Bipolar and Related Disorder
7. Substance/Medication-Induced Anxiety Disorder
8. Substance/Medication-Induced Obsessive–Compulsive and Related Disorder
9. Hallucinogen Persisting Perception Disorder
10. Substance/Medication-Induced Sleep Disorder
11. Substance/Medication-Induced Sexual Dysfunction

# Diagnostic Challenges

1. Ensure that you conduct a comprehensive screening.
2. Take into account the effects of intoxication and withdrawal following the consumption of a particular drug.
3. Consider metabolic disturbances, head trauma, and personality disorders as well.
4. Obtain information regarding the timeline of symptoms. In which order did it occur?
5. It is important to ask about symptoms that occur during extended periods of abstinence (at least four weeks).
6. Obtain information about the family history.
7. The symptoms of some disorders, such as PTSD or eating disorders, do not overlap with the effects of drugs, so diagnosis should not be delayed.

Co-Occurring Disorders

# TREATMENT



# Treatment

---

Models of Treatment

# Examples of Evidence-Based Practices



Integrated Treatment for Co-Occurring Disorders

Supported Employment

Assertive Community Treatment

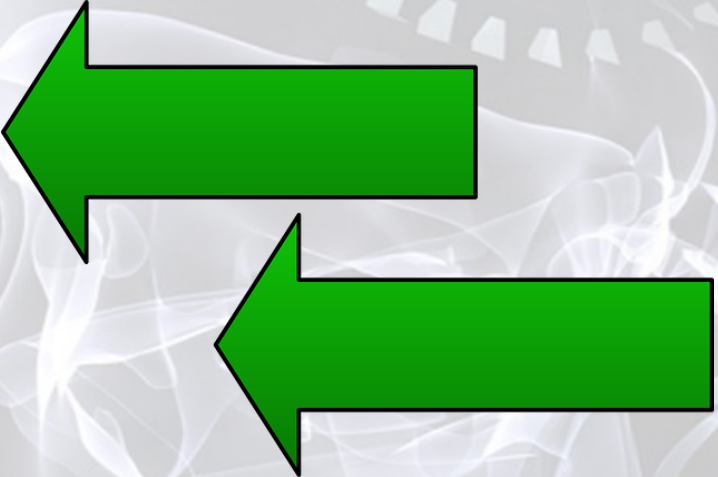
Family Psychoeducation

Illness Management and Recovery

# Co-Occurring Disorder Treatment Models



Sequential



Parallel



Integrated

# Integrated Model of Treatment

**The integrated model of treatment can best be defined by following seven components:**

- 1) Integration
- 2) Comprehensiveness
- 3) Assertiveness
- 4) Reduction of negative consequences
- 5) Long-term perspective
- 6) Motivation-based treatment
- 7) Multiple psychotherapeutic modalities



# Evidence-Based Integrated Therapy

- "Seeking safety" for PTSD (Najavits et al 1996, 1998).
- Integrated Group Therapy for bipolar disorder (Weiss et al 2000)
- Assertive Community Treatment for bipolar (Drake et al 2004)
- Motivational interviewing for dual diagnosis (Carey et al 2001; Martino et al 2002)
- Family interventions (Mueser and Fox 2002)
- Contingency management improves attendance, but effects on psychiatric outcomes have been mixed.
- Twelve-step facilitation has generally been unimpressive in this population.
- Integrated CBT for anxiety and alcohol use disorder improved outcomes for both disorders {Ciraulo et al 2013}.

# Summary

- Integrated Treatment for Co-Occurring Disorders is effective in the recovery process for patients with co-occurring disorders
- The goal of this evidence-based practice is to support patients in their recovery process
- In Integrated Treatment programs, the same practitioners, working in one setting, provide mental health and substance abuse interventions in a coordinated fashion
- Patients receive one consistent message about treatment and recovery

Treatment of Co-  
occurring Disorders

*ONE TEAM, ONE  
PLAN, FOR ONE  
PERSON*



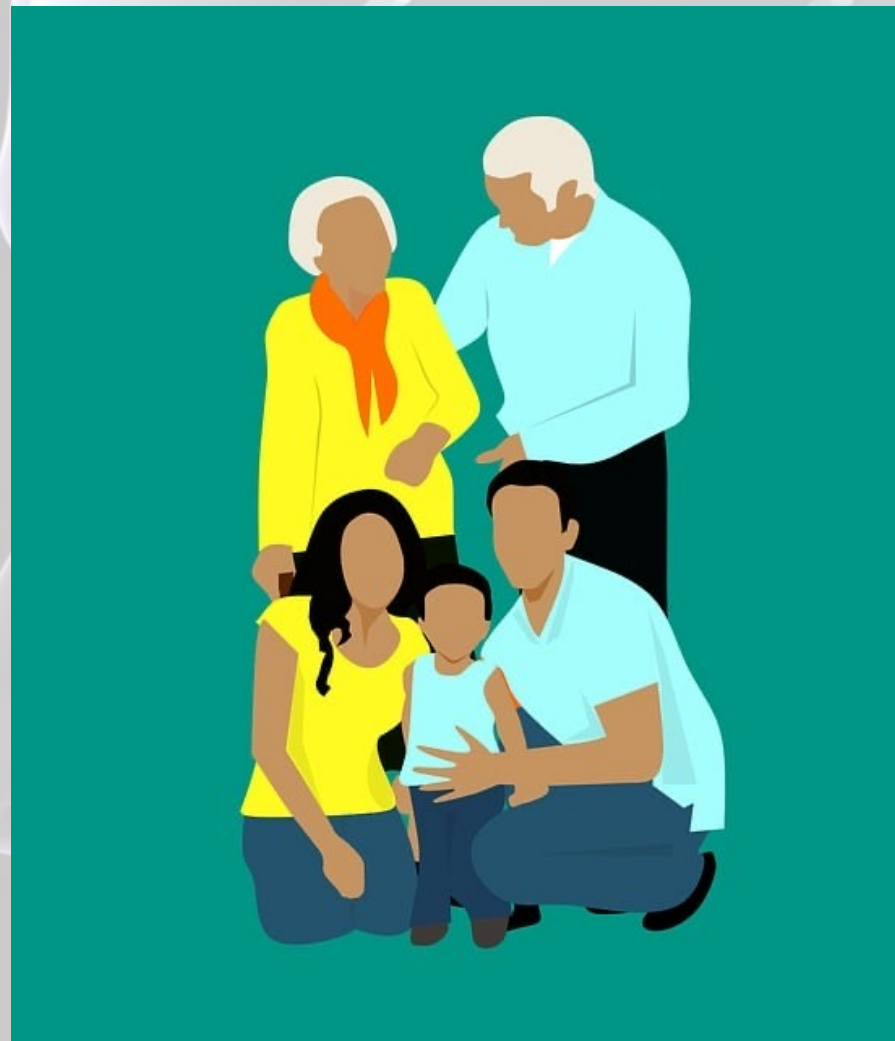


# Treatment

---

Non-Pharmacological Treatment

# Involving the Patient's Family



# Peer Support: Mutual Self-Help



# Psychotherapy



# Contingency Management for Stimulant Use Disorder







# Treatment

---

Pharmacological Treatment



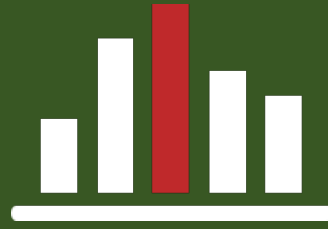
# Treatment

---

Pharmacological Treatment: Medications for Addiction Treatment



New  
Language  
for MAT



← 12  
POINTS

↑  
**32%**  
INCREASE

# Medications for Addiction Treatment

**26**  
March



**5**  
SOLUTIONS

**18**  
OPTIONS

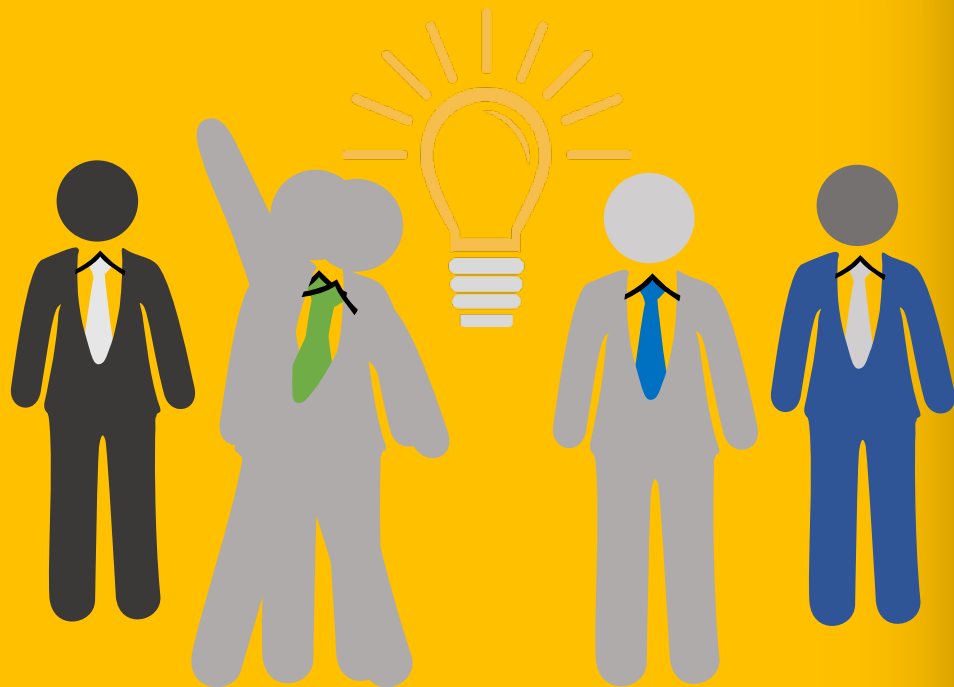




WHY  
The NAME  
CHANGE?



← 12 MONTHS



**Medication  
*Assisted*  
Treatment → →  
Medications for  
Addiction  
Treatment**





# EFFECTIVENESS FOR ADDICTION TREATMENT



← 12 POINTMENTS



↑ RETENTION IN  
TREATMENT

 02

↓ CRIMINAL SYSTEM  
CONTACT & ILLICIT  
SUBSTANCE USE

03 



IMPROVE PATIENT  
SURVIVAL

01 

↓ HIV, HEPATITIS B,  
OR C RISKS

07 

↑ GAINING &  
MAINTAINING  
EMPLOYMENT

04 



06

IMPROVED SOCIAL  
FUNCTIONING

05 ★ 

IMPROVE BIRTH  
OUTCOMES





# FDA APPROVED MEDICATIONS FOR ADDICTION TREATMENT



← 12  
POINTS



## OPIOID USE DISORDER (OUD)

- ✓ Methadone
- ✓ Buprenorphine
- ✓ Naltrexone

## ALCOHOL USE DISORDER (AUD)

- ✓ Acamprosate
- ✓ Disulfiram
- ✓ Naltrexone

## TOBACCO USE DISORDER

- ✓ Nicotine replacement therapy (NRT)
- ✓ Bupropion
- ✓ Varenicline



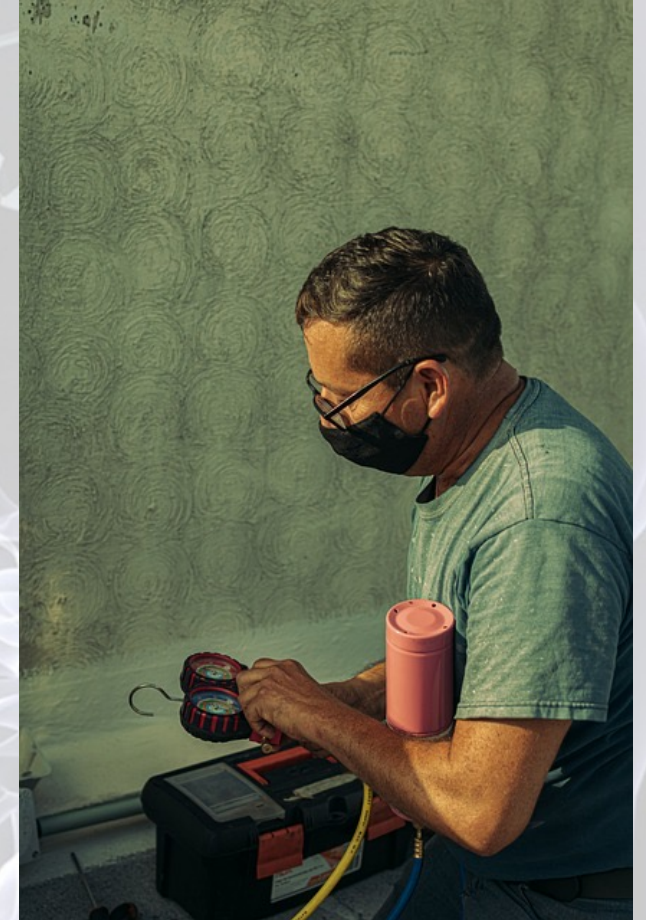


# Treatment

---

Pharmacological Treatment: Condition Specific

# C-Occurrent Major Depressive Disorder

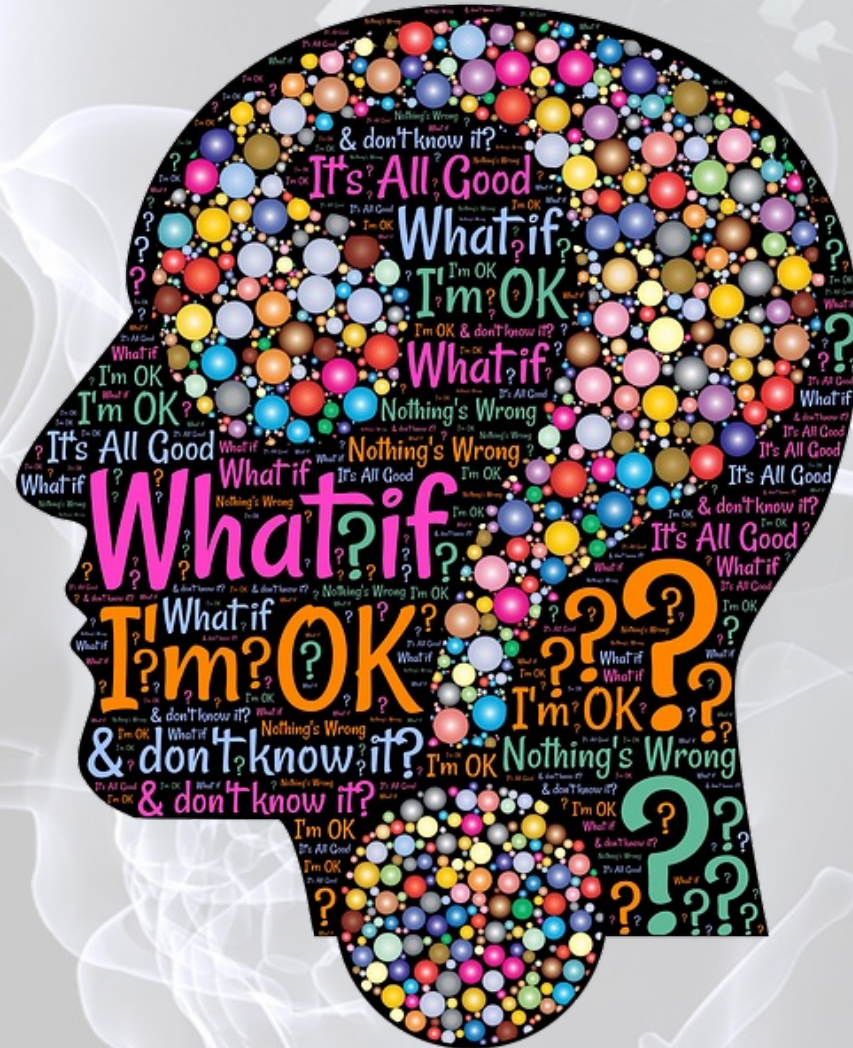




# Co-Occurrent Bipolar Disorder



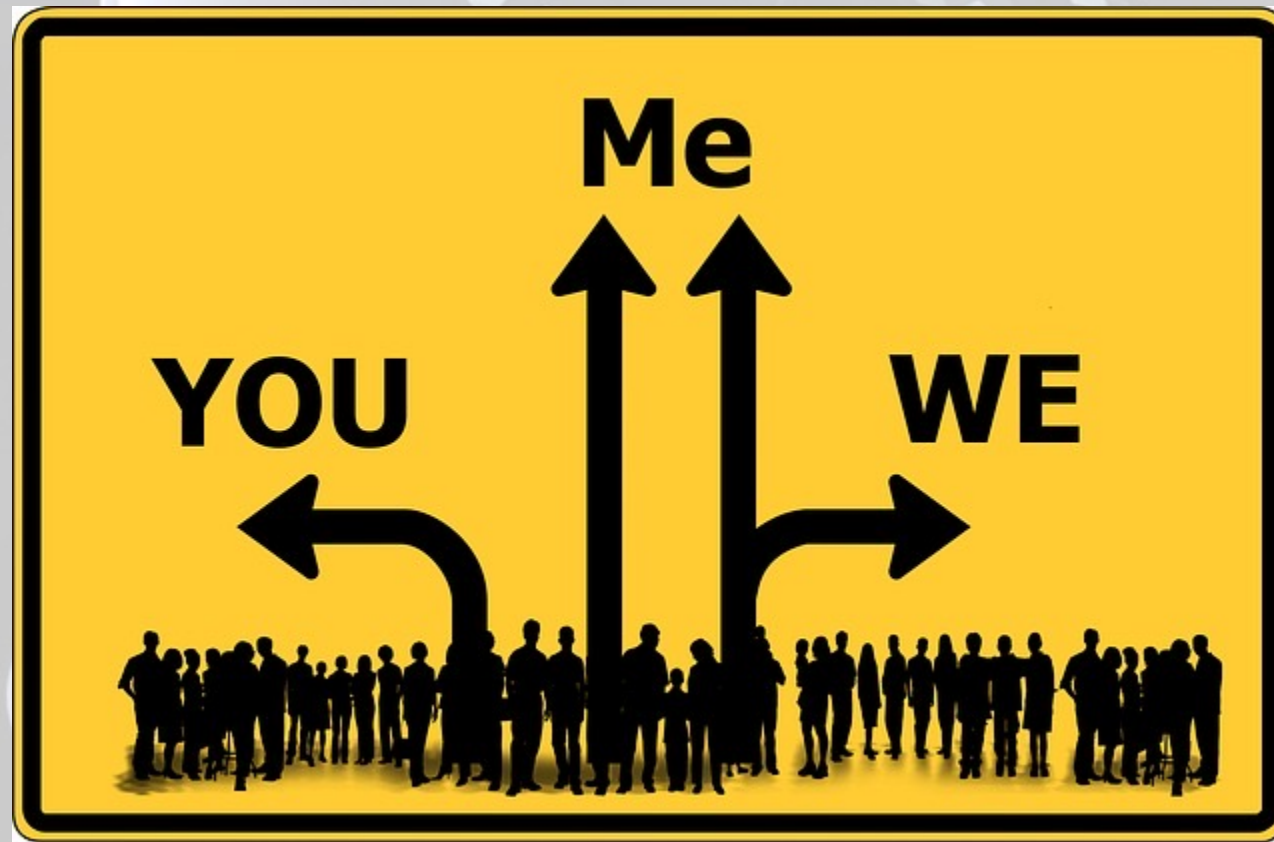
# Co-Occurrent Anxiety Disorders



# Co-Occurrent Schizophrenia Spectrum Disorders



# Co-Occurrent Borderline Personality Disorder



# Co-Occurrent Antisocial Personality Disorder



# Co-Occurrent Eating Disorders



# Co-Occurrent Behavioral Addictions





Co-Occurring Disorders

# **STIGMA AND UNCONSCIOUS BIAS**



The individual becomes “invisible” precisely because of the visibility and social meaning of the racial or mental health stigmata.

● LIVE

**Stigma** is a socially constructed and reinforced, pervasive and global, interpretive, moral, and cultural attribute that is indicative of disfavor, devaluation, and disgrace.



**BREAKING NEWS**

# Stigma and Co-Occurring Disorders

The past never dies. In fact, it's never even past.

— *“Requiem for a Nun” by William Faulkner*

Unexpressed emotions will never die. They are buried alive, and will come forth later, in uglier ways.

— *Sigmund Freud*

At completion of residency, more physicians have negative attitudes toward substance use disorder pts and are less optimistic about benefits of treatment than at the start of med school

*--Geller, et al, 1989*

*Attitudes Toward Individuals With Mental  
Illness and Substance Use Disorders Among  
Resident Physicians*

Disorders Among Resident Physicians. Avery JD, et  
al. Prim Care Companion CNS Disord. 2019.



# Stigma and Co-Occurring Disorders

- How can this be explained?
  - Substance use disorders (SUDs) were traditionally treated by paraprofessionals on an independent basis from traditional healthcare.
  - Patients with substance use disorders were also rejected by mental health services.
  - It is common for house staff to be confronted with recidivist patients who have multiple complex problems and are not adequately trained to handle them.
  - Research study exclusion criteria.
- So what do we do?
  - It is necessary to have an adequate knowledge base.
  - Training in CBT, Motivational Interviewing, Mindfulness
  - Experience with seeing success.
  - Taking responsibility for the clinical problem.

# Medical and Other Sequelae Of Co-Occurring Disorders



The background features a semi-transparent illustration of a human torso with internal organs and a complex network of white lines representing medical complications. Several gears are visible in the upper right quadrant, symbolizing interconnected systems or processes. The top of the image is divided into a green section on the left and a dark blue section on the right.

Medical Complications

**CO-OCCURRING DISORDERS REDUCE LIFE  
EXPECTANCY BY APPROXIMATELY 14 YEARS**

## Medical Co-Occurring Disorders

### Factors to Consider

- The drug
- The contaminants, dissolving agents, and paraphernalia
- The infections pathogens
- The host
- The route



# Medical Complications of Substance Use Disorders

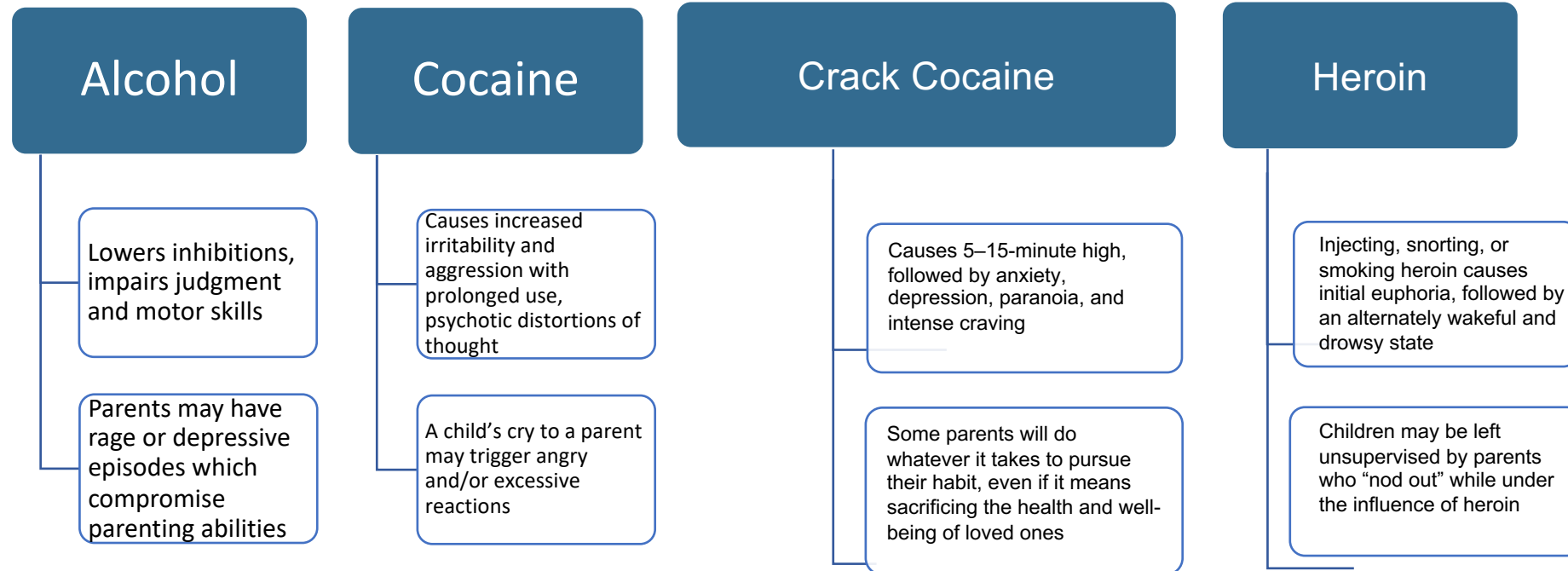
Type of Substance	Medical Complications
<b>Alcohol</b>	Liver disease (e.g., acute alcohol-related hepatitis, alcohol-related fatty liver disease, cirrhosis); cardiovascular disease (e.g., hypertension, cardiomyopathy); gastrointestinal illnesses (e.g., pancreatitis, gastritis, esophagitis); bone marrow suppression; peripheral neuropathy; chronic infectious diseases (e.g., pneumonia); several types of cancer (e.g., of the mouth, esophagus, throat, liver, and breast); associated with psychiatric and behavioral conditions (e.g., depression sleep disturbance); alcohol withdrawal
<b>Cannabis</b>	Chronic bronchitis; cannabis-related hyperemesis; possible association between heavy marijuana use and reduced cognitive function as well as onset of schizophrenia (although controversy remains)
<b>Cocaine</b>	Cardiac ischemia; cerebrovascular and renal disease; chronic rhinitis and perforation of the nasal septum associated with intranasal use; acute and chronic pulmonary complications associated with smoked use ( e.g., acute pulmonary toxicity involving diffuse alveolar damage and hemorrhagic alveolitis)
<b>Designer Drugs</b>	Synthetic cannabinoids are associated with seizures, acute renal failure, and myocardial infarction; cathinones or "bath salts" are associated with muscle spasm, bruxism, cardiac arrhythmias, myocarditis, hyponatremia, rhabdomyolysis, and psychiatric effects

Type of Substance	Medical Complications
<b>Injection Drugs</b>	Local infections (e.g., abscesses, cellulitis); blood-borne infections, including bacterial ( e.g., endocarditis, pneumonia, osteomyelitis, septic arthritis) and viral (e.g., HIV infection, hepatitis C and B)
<b>Methamphetamine</b>	Cardiotoxicity; acute behavioral effects ( e.g., irritability, anger, panic, and psychosis); neurotoxicity and cognitive decline; oral health issues (e.g., tooth decay)
<b>Opioids</b>	Injection-related risks (see above); nausea and constipation; hypothalamic-pituitary-adrenal axis suppression (e.g., amenorrhea, low bone density, loss of libido); opioid-related hyperalgesia; respiratory depression and overdose

# Medical Complications: Tobacco

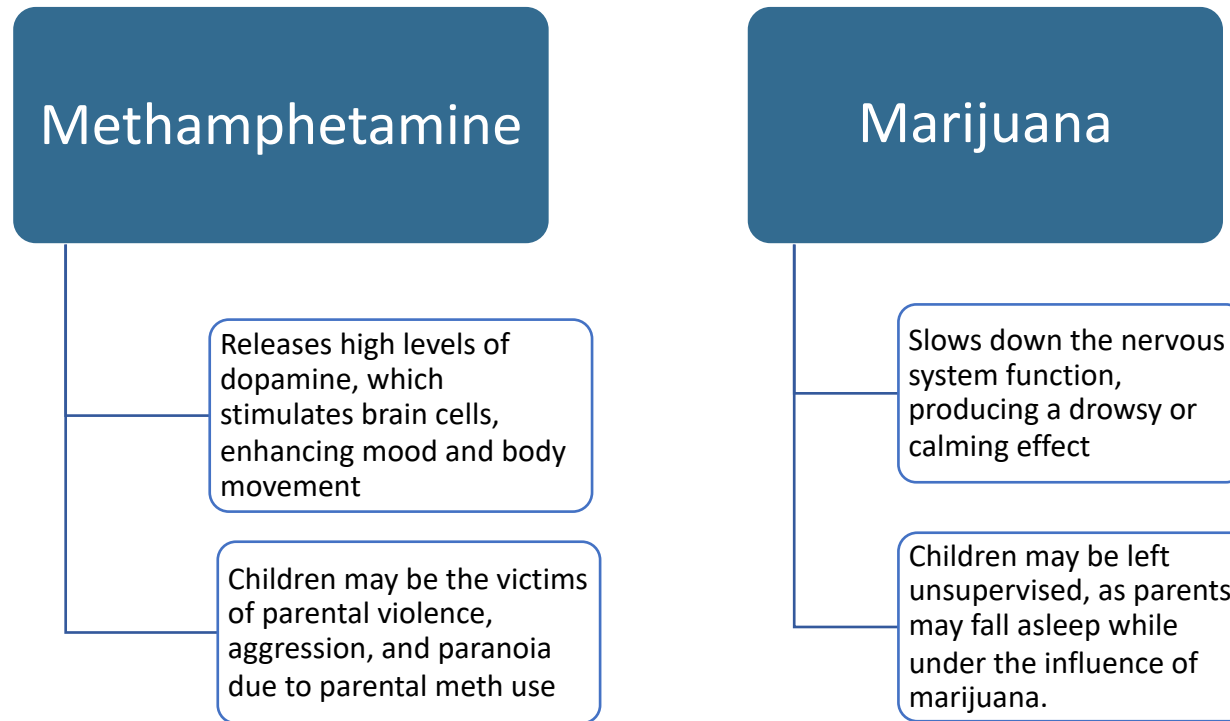
- [www.cdc.gov/tobacco/overview/Fast\\_Facts.htm](http://www.cdc.gov/tobacco/overview/Fast_Facts.htm) - 12/1/06 - "Cigarette smoking remains the leading preventable cause of death in this country and is responsible for an estimated 438,000 deaths per year, or about one of five deaths. An estimated 38,000 of these deaths are the result of secondhand smoke exposure."

# The Risks of Parental Substance Use Disorders on Children: Alcohol and Illegal Drugs



(Breshears, 2009; National Institute on Drug Abuse, 2018a)

# The Risks of Parental Substance Use Disorders on Children: Alcohol and Illegal Drugs



(Breshears, 2009; National Institute on Drug Abuse, 2018a)



Co-Occurring Disorders

# **IN SUMMARY**

# Ending: The Good News



Fellowship



FP Residents to psych/AOD



Gastroenteritis and ectopic

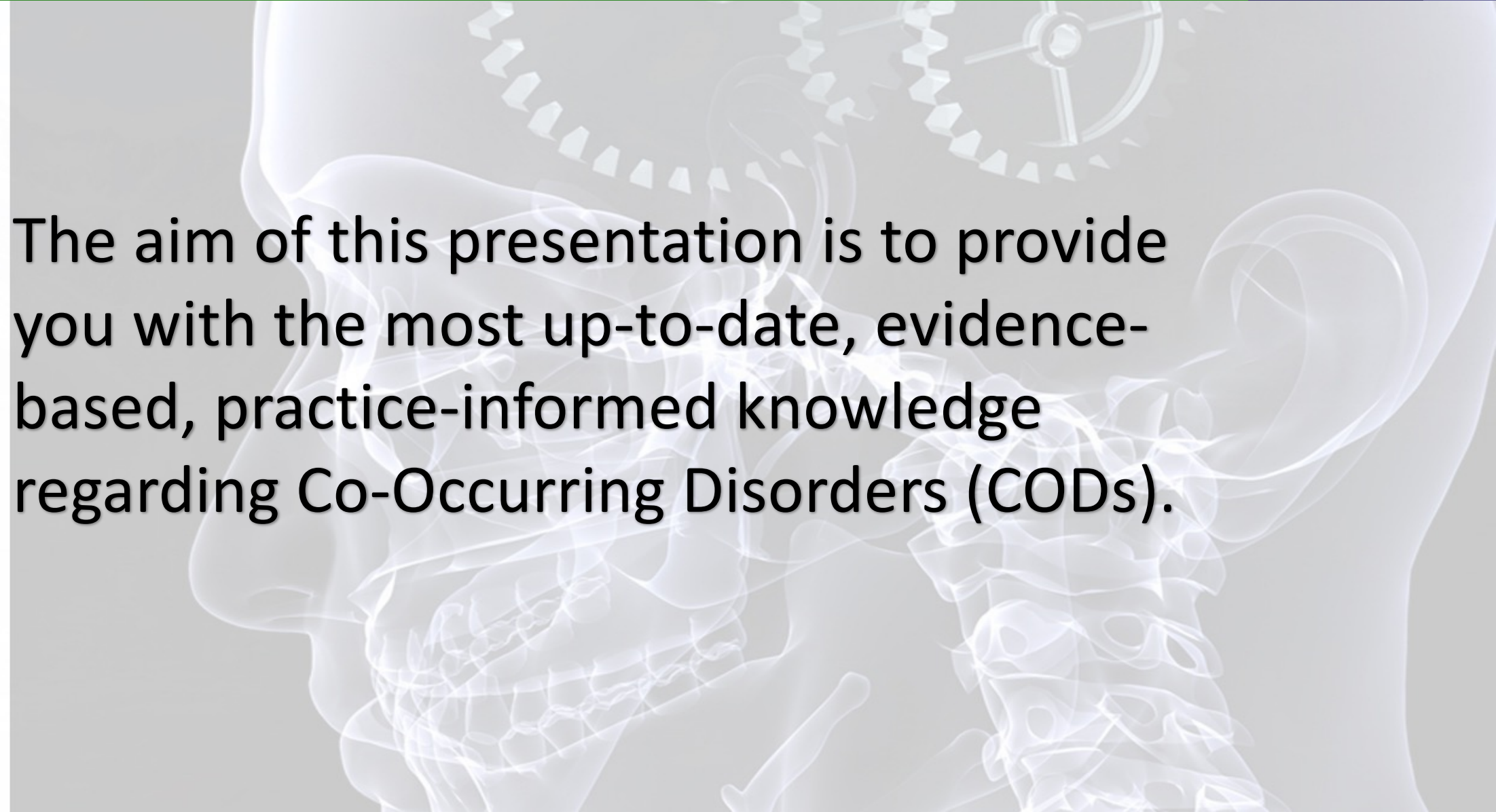


# Summary

- Screen for it! You can't treat what you have not diagnosed.
- Integrated treatment is optimal.
- Parallel treatment should involve close communication between providers.
- Do not withhold treatment for one disorder while prioritizing the other.

# Primary Goal

The aim of this presentation is to provide you with the most up-to-date, evidence-based, practice-informed knowledge regarding Co-Occurring Disorders (CODs).

The background of the slide features a stylized, semi-transparent illustration of a human head in profile, facing left. Inside the head, there are several interlocking gears of various sizes, suggesting a mechanical or cognitive process. Additionally, there are faint, glowing lines and patterns that resemble neural pathways or a complex network, overlaid on the head's structure. The overall aesthetic is clean and professional, with a focus on the theme of the brain and cognitive function.



# How Will We Accomplish Our Primary Goal?

By using evidence-based knowledge to answer these and related questions:

- 1) How do the World Health Organization (WHO) and the Substance Abuse and Mental Health Services Administration (SAMSHA) define COD?
- 2) Why is the identification of CODs important, and what are the associated complications?
- 3) How are CODs diagnosed, and what factors complicate the process?
- 4) How do you non-pharmacologically and pharmacologically treat CODs?
- 5) Where do race and the diagnosis and treatment of CODs intersect?



If you don't THINK about it, you won't ASK about it, and you don't ask about it, you won't DO anything about it.

Co-Occurring Disorders

# Reference List

- 1) American Psychiatric Association's (2022) Diagnostic and Statistical Manual of Mental Disorders (5th ed., text rev.; DSM-5-TR).
- 2) Bakken K, Landheim AS, Vaglum P. Axis I and II disorders as long-term predictors of mental distress: a six-year prospective follow-up of substance-dependent patients. *BMC Psychiatry*. 2007; 7:29.
- 3) Brown SA, Inaba RK, Gillin JC, et al. Alcoholism and affective disorder: clinical course of depressive symptoms. *Am J Psychiatry*. 1995; 152:45-52.
- 4) Brown SA, Irwin M, Schuckit MA. Changes in anxiety among abstinent male alcoholics. *J Stud Alcohol*. 1991; 52:55-61.
- 5) Brown SA, Schuckit MA. Changes in depression among abstinent alcoholics. *J Stud Alcohol*. 1988; 49:412-417.
- 6) Brunello N, et al. posttraumatic stress disorder: diagnosis and epidemiology, comorbidity and social consequences, biology and treatment. *Neuropsychobiology*. 2001;43(3):150-162.
- 7) Cerullo MA, Strakowski SM. The prevalence and significance of substance use disorders in bipolar type I and II disorder. *Subst Abuse Treat Prev Policy*. 2007; 2:29.
- 8) Donovan SJ, Nunes EV. Treatment of comorbid affective and substance use disorders. Therapeutic potential of anticonvulsants. *Am J Addict*. 1998;7(3):210-20.
- 9) Grant BF, Goldstein RB, Saha TD, et al. Epidemiology of DSM-5 alcohol use disorder: results from the National Epidemiologic Survey on Alcohol and Related Conditions III. *JAMA Psychiat*. 2015; 72:757-766.
- 10) Grant BF, Saha TD, Ruan WJ, et al. Epidemiology of DSM-5 drug use disorder: results from the National Epidemiologic Survey on Alcohol and Related Conditions-III. *JAMA Psychiat*. 2016; 73:39-47.

# Reference List

- 11) Grant BF, Stinson FS, Dawson DA, et al. Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: results from the National Epidemiological Survey on Alcohol and Related Conditions. *Arch Gen Psychiatry*. 2004; 61:807-816.
- 12) Grelotti D, Kanayama G, Pope Jr H. Remission of persistent methamphetamine-induced psychosis after electroconvulsive therapy: presentation of a case and review of the literature. *Am J Psychiatry*. 2010;167(1):17-23.
- 13) Grilo CM, Shea MT, Sanislow CA, et al. Two-year stability and change in schizotypal, borderline, avoidant, and obsessive-compulsive personality disorders. *J Consult Clin Psychol*. 2004; 72:767-775.
- 14) Gurmankin Levy A, Maselko J, Bauer M, et al. Why do people with an anxiety disorder utilize more nonmental health care than those without? *Health Psychol*. 2007; 26:545-553.
- 15) Harned MS, Najavits LM, Weiss RD. Self-harm and suicidal behavior in women with comorbid PTSD and substance dependence. *Am J Addict*. 2006;15(5):392-395.
- 16) Hasin D, Nunes E, Meydan J. Comorbidity of alcohol, drug and psychiatric disorders: epidemiology. In: Kranzler HR, Tinsley JA, eds. *Dual Diagnosis and Treatment: Substance Abuse and Comorbid Disorders*. 2nd ed. New York, NY: Marcel Dekker, 2004:1-34.
- 17) Hasin D, Samet S, Nunes EV, et al. Diagnosis of comorbid disorders in substance users: Psychiatric Research Interview for Substance and Mental Disorders (PRISM-IV). *Am J Psychiatry*. 2006; 163:689-696.
- 18) Hasin DS, Goodwin RD, Stinson FS, et al. Epidemiology of major depressive disorder: results from the National Epidemiologic Survey on Alcoholism and Related Conditions. *Arch Gen Psychiatry*. 2005;62(10):1097-1106.
- 19) Jacobsen LK, Southwick SM, Kosten TR. Substance use disorders in patients with posttraumatic stress disorder: a review of the literature. *Am J Psychiatry*. 2001;158(8):1184-1190.
- 20) Johnson JG, Cohen P, Kasen S, et al. Age-related change in personality disorder trait levels between early adolescence and adulthood: a community-based longitudinal investigation. *Acta Psychiatr Scand*. 2000; 102:265-275.

# Reference List

- 21) Kahler CW, Ramsey SE, Read JP, et al. Substance-induced and independent major depressive disorder in treatment-seeking alcoholics: associations with dysfunctional attitudes and coping. *J Stud Alcohol*. 2002; 63:363-371.
- 22) Kessler RC, Crum RM, Warner LA, et al. Lifetime co-occurrence of DSM-III-R alcohol abuse and dependence with other psychiatric disorders in the National Comorbidity Survey. *Arch Gen Psychiatry*. 1997; 54:313-321.
- 23) Kessler RC, et al. Posttraumatic stress disorder in the National Comorbidity Survey. *Arch Gen Psychiatry*. 1995;52(12):1048-1060.
- 24) Kroenke K, Spitzer RL, Williams JB, et al. Anxiety disorders in primary care: prevalence, impairment, comorbidity, and detection. *Ann Intern Med*. 2007; 146:317-325.
- 25) Langås A-M, Malt UF, Opjordsmoen S. Substance use disorders and comorbid mental disorders in first-time admitted patients from a catchment area. *Eur Addict Res*. 2012; 18:16-25.
- 26) Lenzenweger MJ. Stability and change in personality disorder features: the Longitudinal Study of Personality Disorders. *Arch Gen Psychiatry*. 1999; 56:1009-1015.
- 27) Lopez B, Turner RJ, Saavedra LM. Anxiety and risk for substance dependence among late adolescents/young adults. *J Anxiety Disord*. 2005; 19:275-294.
- 28) Mancebo MC, Grant JE, Pinto A, et al. Substance use disorders in an obsessive compulsive disorder clinical sample. *J Anxiety Disord*. 2009; 23:429-435.
- 29) Martins SS, Gorelick DA. Conditional substance abuse and dependence by diagnosis of mood or anxiety disorder or schizophrenia in the U.S. population. *Drug Alcohol Depend*. 2011;119(1-2):28-36.
- 30) Mathias S, Lubman DI, Hides L. Substance-induced psychosis: a diagnostic conundrum. *J Clin Psychiatry*. 2008;69(3):358-367.

# Reference List

- 31) Merikangas KR, Akiskal HS, Angst J, et al. Lifetime and 12-month prevalence of bipolar spectrum disorder in the National Comorbidity Survey replication. *Arch Gen Psychiatry*. 2007;64(5):543-552.
- 32) Nunes EV, Liu X, Samet S, et al. Independent versus substance-induced major depressive disorder in substance-dependent patients: observational study of course during follow-up. *J Clin Psychiatry*. 2006;67(10):1561-1567.
- 33) Ouimette P, Goodwin E, Brown PJ. Health and well being of substance use disorder patients with and without posttraumatic stress disorder. *Addict Behav*. 2006;31(8):1415-1423.
- 34) Regier DA, Farmer ME, Rae DS, et al. Comorbidity of mental disorders with alcohol and other drug abuse. Results from the Epidemiologic Catchment Area (ECA) Study. *JAMA*. 1990; 264:2511-2518.
- 35) Sadock B, Sadock VA. Kaplan & Sadock's Synopsis of Psychiatry, Behavioral Sciences/Clinical Psychiatry. Philadelphia: Lippincott, Williams & Wilkins, 2003.
- 36) Sato M. A lasting vulnerability to psychosis in patients with previous methamphetamine psychosis. *Ann N Y Acad Sci*. 1992;654(1):160-170.
- 37) Schuckit MA, Hesselbrock V. Alcohol dependence and anxiety disorders: what is the relationship? *Am J Psychiatry*. 1994; 151:1723-1734.
- 38) Schuckit MA, Tipp JE, Bergman M, et al. Comparison of induced and independent major depressive disorders in 2,945 alcoholics. *Am J Psychiatry*. 1997; 154:948-957.
- 39) Schuckit MA. Comorbidity between substance use disorders and psychiatric conditions. *Addiction*. 2006;101(1):76-88.
- 40) Seivewright H, Tyrer P, Johnson T. Change in personality status in neurotic disorders. *Lancet*. 2002; 359:2253-2254.

# Reference List

- 41) Selzer J, Lieberman J. Schizophrenia and substance abuse. *Psychiatr Clin North Am.* 1993;16(2):401-412.
- 42) Shea MT, Stout RL, Gunderson J, et al. Short-term diagnostic stability of schizotypal, borderline, avoidant, and obsessive-compulsive personality disorders. *Am J Psychiatry.* 2001; 159:2036-2041.
- 43) Shollar E. The long-term treatment of the dually diagnosed. In: Solomon J, Zimberg S, Shollar E, eds. *Dual Diagnosis: Evaluation, Treatment, Training, and Program Development.* New York: Springer, 1993:77-104.
- 44) Siever LJ, Davis K. A psychobiological perspective on the personality disorders. *Am J Psychiatry.* 1991; 148:1647-1658.
- 45) Swofford CD, Scheller-Gilkey G, Miller AH, Woolwine B, Mance R. Double jeopardy: schizophrenia and substance use. *Am J Drug Alcohol Abuse.* 2000;26(3):343-353.
- 46) Tourian L, LeBoeuf A, Breton JJ, et al. Treatment options for the cardinal symptoms of disruptive mood dysregulation disorder. *J Can Acad Child Adolesc Psychiatry.* 2015;24(1):41-54
- 47) Trull TJ, Jahng S, Tomko RL, et al. Revised NESARC personality disorder diagnoses: gender, prevalence, and comorbidity with substance dependence disorders. *J Pers Disord.* 2010;24(4):412-426.
- 48) Tsuang J, Fong TW. Treatment of patients with schizophrenia and substance abuse disorders. *Curr Pharm Des.* 2004; 10:2249-2261.
- 49) Verheul R, Andrea H, Berghout CC, et al. Severity indices of personality problems (SIPP-118) development, factor structure, reliability, and validity. *Psychol Assess.* 2008;20(1):23-34.
- 50) Verheul R. Co-morbidity of personality disorders in individuals with substance use disorders. *Eur Psychiatry.* 2001; 16:274-282.
- 51) Weathers FW, et al. Posttraumatic stress disorder in DSM-5: new criteria, new measures, and implications for assessment. *Psychol Inj Law.* 2014;7(2):93-107.
- 52) Young HE, Rosen CS, Finney JW. A survey of PTSD screening and referral practices in VA addiction treatment programs. *J Subst Abuse Treat.* 2005;28(4):313-319.

**QUESTIONS?**

