Providers Clinical Support System

The Connection Between Mental Health and Opioid Use Disorder

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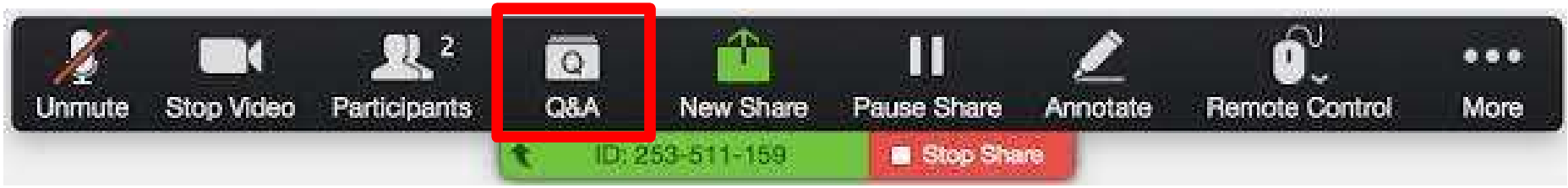
Tuesday, January 24, 2023
1:00 PM – 2:00 PM EST

How to Participate in Q&A

Use the “Q&A” area of the attendee control panel



We will reserve 20 – 30 minutes for Q&A after the presentation

Webinar Faculty

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Disclosures

Mark Duncan, MD faculty for this educational activity, has no relevant financial relationship(s) with ineligible companies.

Educational Objectives

- **Gap:** Practitioners may not understand the close relationship between Mental Health Disorders and Opioid Use Disorders and the importance of addressing both.

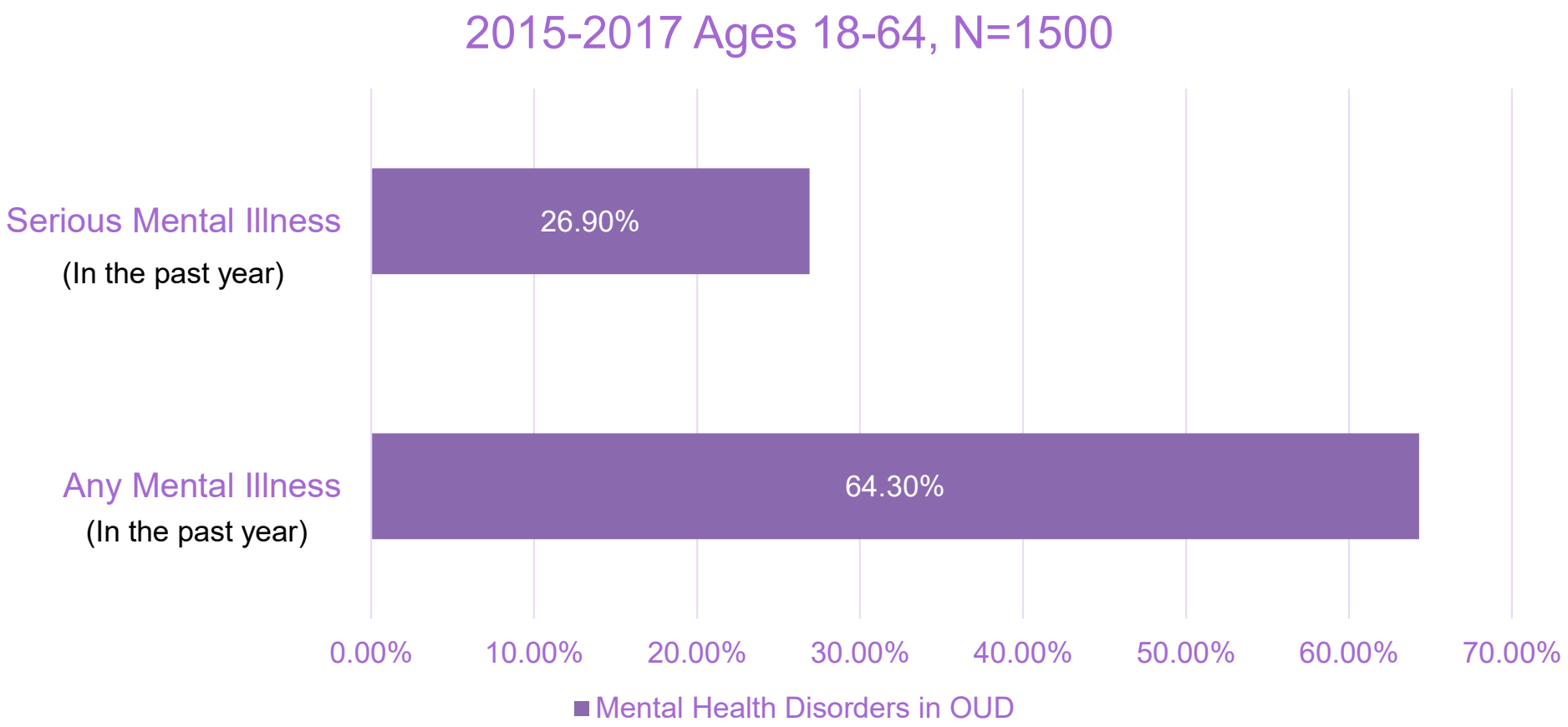
- At the conclusion of this activity participants should be able to:
  - Summarize the prevalence of common comorbid Mental Health Disorders
  - Describe the relationship between concurrent Mental Health Disorders and Opioid Use Disorder.
  - Identify the impact Mental Health Disorders can have on Opioid Use Disorder treatment

Checkpoint

How common is the co-occurrence of Opioid Use Disorders (OUD) and Mental Health (MHD) Disorders?

1. 0-25%
2. 26-50%
3. 51-75%
4. 76-100%

MHD are VERY Common in People with OUD



Jones CM, et al, 2019

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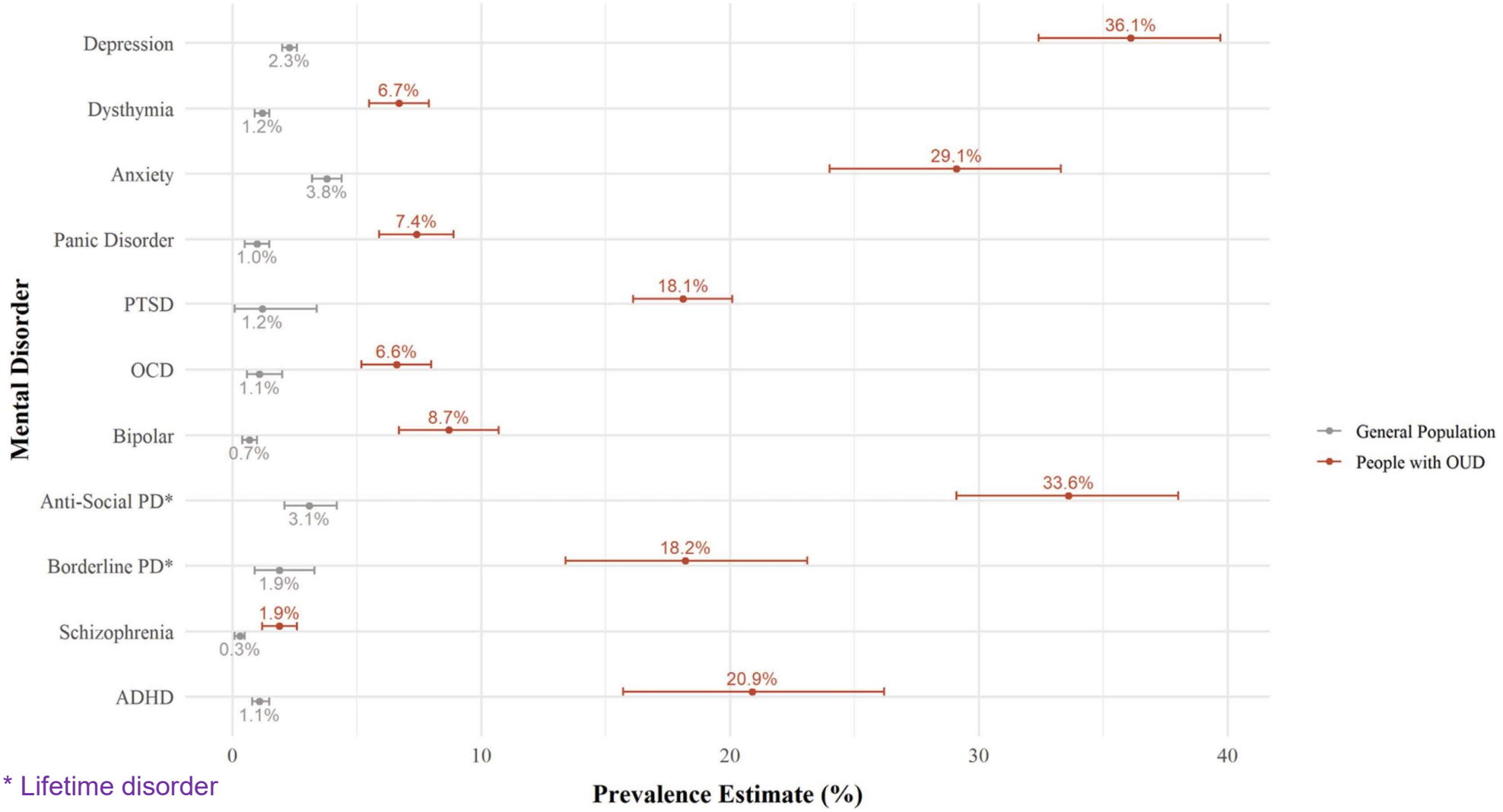
Mental Health Disorders in OUD



* Lifetime disorder

Santo, T et al, 2022
Simon, V et al, 2009

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What About Suicide and OUD?

Opioid Related Overdose Deaths

	2000	2017
Unintentional Deaths	6190 (73.8%)	43,036 (90.6%)
Suicides	757 (9.0%)	1884 (4.0%)
Suicide per 100,000	0.27	0.58

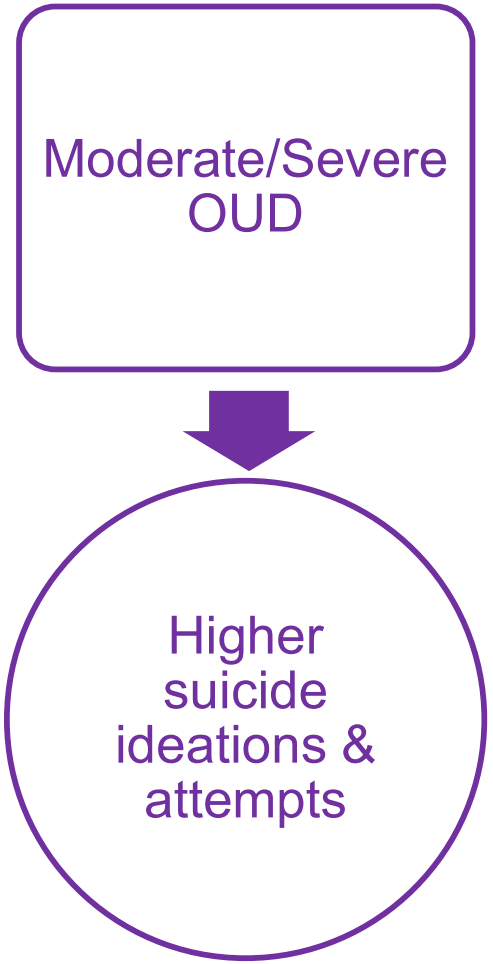
- Limitations:
  - We know more about drug related deaths in 2017 vs 2000.
  - Death certificates – high potential for misclassification
    - Intentional vs. unintentional

Olfson M, et al 2019

What About Suicide and OUD?

Suicide Thoughts/Behaviors

	OUD (n=2,371) Wgt % (SE)	**No OUD** (n=239,304) Wgt % (SE)	**P-value**
Ideation	26 (1.6)	4 (0.1)	<.0001
Plan	10 (0.9)	1 (0.03)	<.0001
Attempt	6 (0.7)	1 (0.02)	<.0001



Streck, JM et al, 2022

Checkpoint:
What is the impact of MHD on OUD Tx?

1. Limited. Untreated OUD is main problem.
2. Significant. Treat MHD first.
3. Will need higher doses of buprenorphine.
4. Needs integrated care approach.

Impact of MHD on OUD

- Secondary analysis of Bup and Methadone trial Methadone clinics.
  - 5-year observation period
  - 4 Groups
    - No Mental Disorder: 336
    - Anxiety Disorders (includes PTSD): 121
    - Major Depressive Disorder: 85
    - Bipolar Disorder: 51

- SUD Outcomes (Mental Health vs No Mental Health)

More Months in Treatment
- Only significant for MDD

More opioid use
- Only significant for Bipolar

Greater symptoms
- Addiction
- Physical and psychiatric health
- Poorer quality of life

Inconsistent Finding

Zhu Y et al, 2021

Impact of ADHD on OUD Treatment

- ADHD: impact on SUDs
  - earlier-onset substance use
  - longer duration of active SUD
  - more frequent and heavier use patterns
  - more difficulty achieving remission
  - lower retention when compared to those with SUD but without ADHD.

- Treatment of ADHD in OUD Treatment
  - ADHD treatment (including stimulants)→greater long-term retention
    - HR 0.59
    - ADHD meds were better predictor for retention vs Buprenorphine

  - Individuals receiving no ADHD medications→4.9 fold increase in attrition at 90 days

Willens TE et al, 1998; Levin FR et al, 2004; Carroll KM et al, 1993; Kast K et al 2021

How does OUD Impact MHD Tx?

- Hard to treat MHD if OUD not treated
  - Missed follow-ups
  - Poor psychiatric medication adherence
  - Therapy interfering
  - Effects of substances on psychiatric symptoms

Takeaway

- Start treating the OUD first with medications!
- Monitor for higher rates of suicide
- Once OUD treatment is started (post induction)→evaluate and treat MHD ***soon*** thereafter

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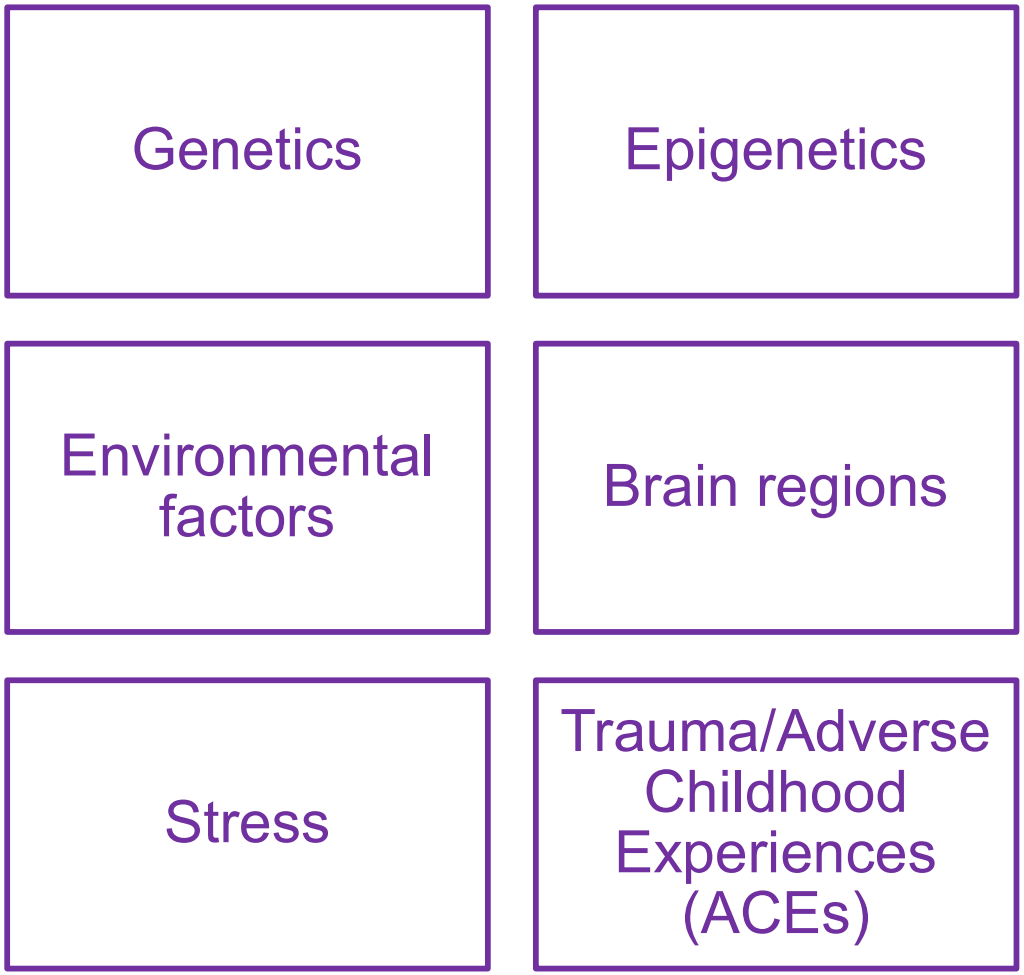
The Connection Recap

- MHD and OUD frequently co-occur
- MHD and OUD place people at higher risk for suicide
- MHD can/does complicate OUD treatment course
- MHD can lead to more patient distress, worse addiction symptoms, and worsen quality of life

Checkpoint: Why do we see this overlap?

1. Genetic vulnerabilities
2. Common brain areas affected
3. Life stress
4. Substances clearly cause mental disorders
5. A, B, C
6. None of the above

Shared Risk Factors for MHD and OUD



NIDA. (2018, February 27). Common Comorbidities with Substance Use Disorders. Retrieved from https://www.drugabuse.gov/publications/research-reports/common-comorbidities-substance-use-disorders on 2019, May 24

Genetics

- **Heritability**
  - Depressive disorders: 37-50%
  - SUDs: 40-60%
    - Opioids: about 50%
  - ADHD: 77-88%

- Direct action→building proteins
- Indirect action→response to stress

Overlap in Gene Involved

Gene Systems Associated with MDD

- Opioid Receptors (mu and kappa)
- Dopamine Receptors
- Neurotrophic Factors
- Serotonergic System
- And More!

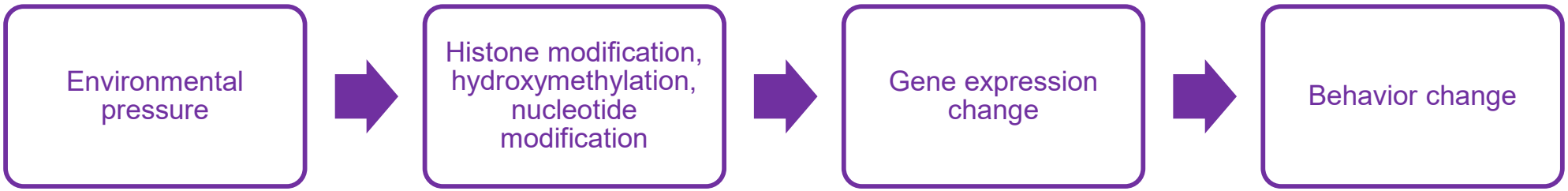
Gene Systems Associated with OUD

- Opioid Receptors
- Dopamine Receptors
- Neurotrophic Factors

Tsuang MT et al, 1998; Wang SC et al, 2019; Fan T et al, 2019; Serretti A, 2017; Berrettini W et al 2017; Mistry C et al 2014; Shadrina et al, 2018; Grimm O et al, 2020

Epigenetics Factors

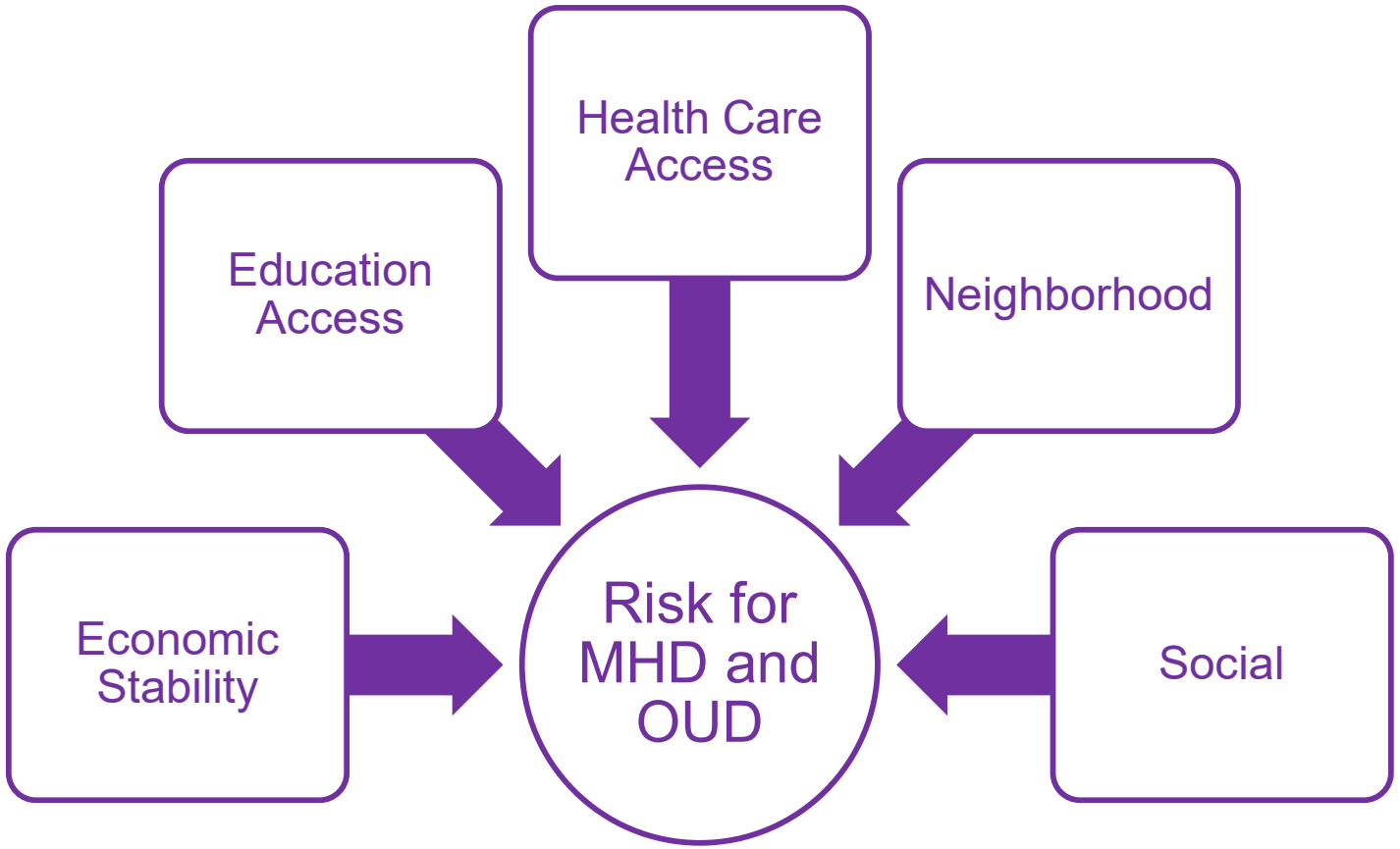
Epigenetic Mechanisms→manipulating brain plasticity



- MDD and OUD
  - Similar regions of the brain affected
    - Frontal Cortex
    - Nucleus Accumbens
    - Hippocampus
    - Reward system
  - Affecting similar regions on histones

Browne CJ et al, 2019; Pena CJ et al, 2014

Environmental Factors



https://health.gov/healthypeople/priority-areas/social-determinants-health/literature-summaries

Neurobiology Overlap

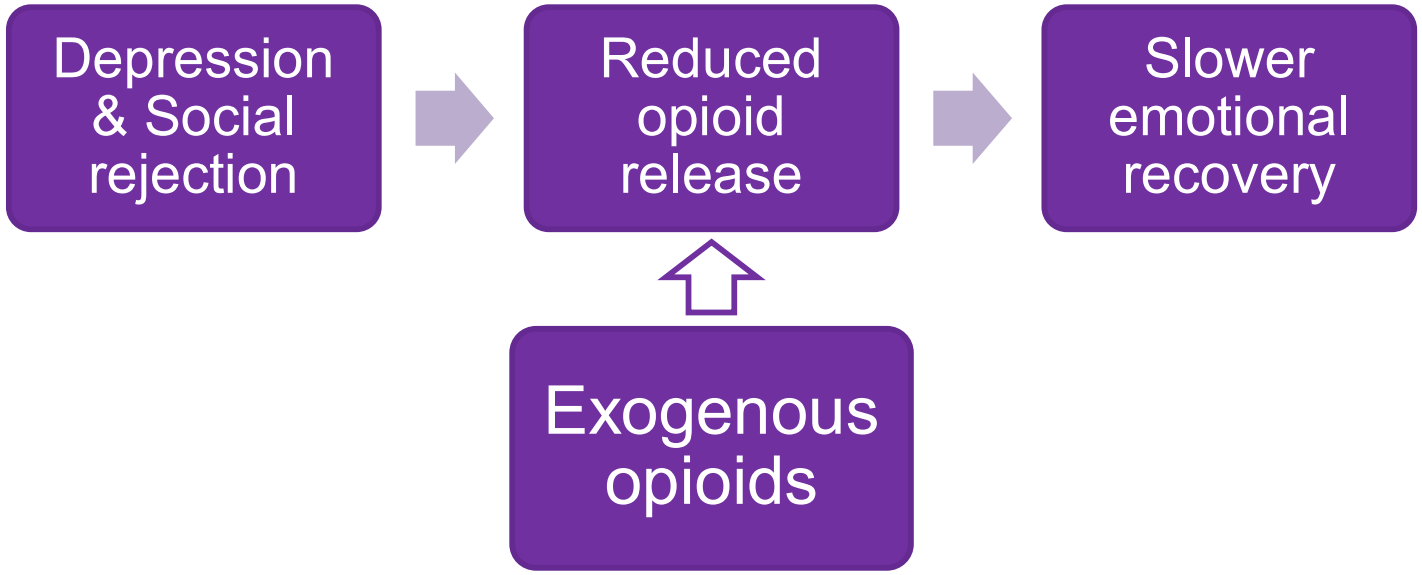
- Depression Neurobiology

Regions	Circuits	Neurotransmitters
• Frontal Lobe • Thalamus • Striatum • Parietal lobe • Hippocampus	• Prefrontal-subcortical circuit • Prefrontal-hippocampal circuit • Frontothalamic circuit	• Dopamine • Serotonin • Glutamate • GABA • Norepinephrine • Endogenous opioids

NIDA. (2018, February 27). Common Comorbidities with Substance Use Disorders. Retrieved from https://www.drugabuse.gov/publications/research-reports/common-comorbidities-substance-use-disorders on 2019, May 24; Zhang F et al, 2018; Moningka, H et al, 2019

Depression, Opioids and Shared Neurobiology

- Endogenous opioids modulate physical pain and pain of social rejection



- Mood disorders increased risk of transitioning from short-term opioid treatment to long-term opioid treatment (2x's)
- Current mood disorders initiate opioids slightly more commonly (2%)

- Increased dose and duration of opioid treatment has been associated with developing depression
  - 90+ days, HR 1.25; 180+ days, HR 1.51
  - >50 morphine equivalent dose (OR 2.65)

Sullivan MD, 2018

Stress

- Stress Definition
  - processes involving perception, appraisal, and response to harmful, threatening, or challenging events or stimuli.
  - Stress experiences can be emotionally or physiologically challenging and activate stress responses and adaptive processes to regain homeostasis.

- Impact areas of brain involved in
  - Motivation, learning, adaptation
    - Hypothalamic Pituitary Access
  - Impulsivity
    - Prefrontal cortex
- Alter Dopamine pathways
  - May enhance reinforcing properties of drugs

- Risk factor for developing mental disorders and SUDs
  - Relapse risk for both

Sinha R, 2008

Trauma and Adverse Childhood Experiences

- Increase risk for both SUDs and Mental Health Disorders
  - Veteran Connection
    - 1 in 5 Veterans with PTSD also has a co-occurring SUD
  - Adverse Childhood Experiences (ACE's)
    - Increase risk for development of SUDs
    - Increase risk for depression & anxiety
    - Up to 80% of OUD patients have ACE's
    - 46% of OUD patients have 3+ ACE's
    - 5+ ACE's→7-10x increase in risk for SUDs
    - A chance at prevention?

VA Health Care, National Center for PTSD. *Understanding PTSD and Substance Abuse*. 2011. Dube SR et al, 2003; Douglas KR et al, 2010

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The Connection, Revisited

- *MHD and OUD frequently co-occur*
- *MHD and OUD place people at higher risk for suicide*
- *MHD can/does complicate OUD treatment course*
- *MHD can lead to more patient distress, worse addiction symptoms, and worsen quality of life*

- MHD and OUD have significant overlap in developmental causes and risk factors

The Problem: the OUD and MHD Treatment Gap

- 70-75% will ***NOT*** receive ***BOTH*** mental health & SUD treatment
  - Lower odds of receiving treatment
    - Male sex (aOR 0.48)
    - 18-25yo (aOR 0.58)
    - Non-Hispanic black (aOR 0.31) or Non-Hispanic other (aOR 0.36)
- Why?
  - Human resources, infrastructure (team), clinician participation, knowledge base, stigma, access to specialty services, accessibility, care coordination, structural racism in treatment system

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Jones CM, et al, 2019; Shidhaye R, et al, 2015

The Connection, Next Steps

26yo Male with OUD

- It is now 2 weeks into treatment and the patient continues to admit to using fentanyl one day a week, despite reportedly taking 24mg-6mg of Buprenorphine-Naloxone.
- He has been showing up to appointments on time.
- Mood is poor and he looks tired and mildly disheveled. He feels like he is barely making it in life.

Checkpoint:
What would you do next?

26yo Male with OUD

1. Screen him for a mental health disorder.
2. Allow him to time to further stabilize because you often need to wait 6 weeks.
3. Refer him to a mental health clinic.
4. Screen him for additional substance use.
5. Ask him why he is using fentanyl still and address it.
6. Refer to mental health.

Follow-up: 26yo with OUD

- Further history
  - No other substance use
  - No new medical issues
  - Housing stable
  - Good social support
- Screened for depression with the PHQ9
  - Score: 19/27, #9 (suicide question-2/3)
- Treatment plan
  - Meds and therapy
  - Suicide safety plan

Practical Tips for Using Screeners

- Depression: PHQ9
  - Good to assess SI at intake (but not enough)
  - Repeat around 2 weeks to screen for depression
- Anxiety: GAD7
  - Initial one at 2 weeks
- Bipolar: CIDI-3 (provider administered)
- PTSD: PC-PTSD-5
  - Can use earlier due to unique features of diagnosis
- ADHD: ASRS
  - Can use earlier as symptoms have been found to be consistent across time periods.

Strain EC et al, 1991; van de Glind G et al, 2013

Practical Tips for Using Screeners

- The Columbia-Suicide Severity Rating Scale (C-SSRS)
  - Recommended tool to assess suicide risk.
  - This 6-question tool has been widely studied and validated in multiple countries and languages.
  - It is available in over 140 country-specific languages.
  - It is the only tool that assesses for intensity, frequency, and changes of suicidal ideation over time.

- What about #9 on the PHQ9?
  - Can result in too many false positives
  - Does not assess current suicidal plans or intent.
  - If the PHQ-9 is to be relied on for preliminary assessment of suicide risk, a follow-up questionnaire, like the C-SSRS, should be used for a more complete assessment.

Project TCL; Na P, et al, 2018

988 Suicide & Crisis Lifeline

- "988" is the three-digit, nationwide phone number to connect directly to the 988 Suicide and Crisis Lifeline.
  - New Nationwide Number – direct connection to compassionate, accessible care.
  - Provides support – you can also dial 988 if you are worried about a loved one who may need crisis support
  - Over 200 crisis centers – the network has been active since 2005. Counselors answer contacts from the lifeline every day.
  - Evidence-based – studies show callers feel less suicidal, less depressed, and less overwhelmed after speaking with a lifeline counselor

Co-occurring Treatment Models

Avoid→ **Sequential**

- Receives one treatment and then the other

Parallel

- Participates in two systems simultaneously

Goal→ **Integrated**

- Single, unified and comprehensive treatment program for both disorders

The Connection, Summary

- MHD and OUD frequently co-occur
- MHD and OUD place people at higher risk for suicide
- MHD can/does complicate OUD treatment course
- MHD can lead to more patient distress, worse addiction symptoms, and worsen quality of life
- MHD and OUD have significant overlap in developmental causes and risk factors

- **Screen and treat for mental health disorders in all patients with OUD**

The Connection

- Psychiatric comorbidity is common and people with OUD are at higher risk for suicide

- If either untreated, both will impact patient outcomes
- Etiologies and risk factors for MHDs and OUDs are similar

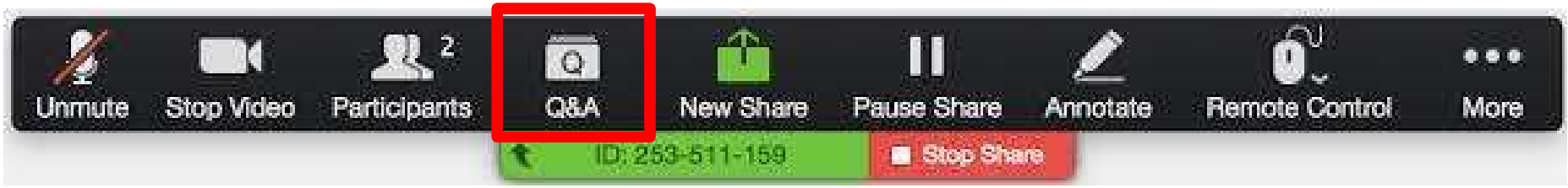
- Screen and treat for mental health disorders in all patients with OUD

Thank you!

- Questions?

Q&A

Use the “Q&A” area of the attendee control panel



Q&A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PCSS Mentoring Program

- PCSS Mentor Program is designed to offer general information to clinicians about evidence-based clinical practices in prescribing medications for opioid use disorder.
- PCSS Mentors are a national network of providers with expertise in **addictions, pain, evidence-based treatment including medications for opioid use disorder (MOUD)**.
- 3-tiered approach allows every mentor/mentee relationship to be unique and catered to the specific needs of the mentee.
- No cost.

For more information visit:

https://pcssNOW.org/mentoring/

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PCSS Discussion Forum

Have a clinical question?

Ask a Colleague

A simple and direct way to receive an answer related to medications for opioid use disorder. Designed to provide a prompt response to simple practice-related questions.

http://pcss.invisionzone.com/register

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American Academy of Family Physicians	American Society for Pain Management Nursing
American Academy of Pain Medicine	Association for Multidisciplinary Education and Research in Substance use and Addiction
American Academy of Pediatrics	Council on Social Work Education
American Pharmacists Association	International Nurses Society on Addictions
American College of Emergency Physicians	National Association for Community Health Centers
American Dental Association	National Association of Social Workers
American Medical Association	National Council for Mental Wellbeing
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