The Connection between Mental Health and Opioid Use Disorder

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University of Washington

Tuesday, January 14th, 2020
12:00 PM – 1:00 PM EST
**PCSS** is a collaborative effort led by the American Academy of Addiction Psychiatry (AAAP) in partnership with:

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Webinar Housekeeping

Minimize or maximize the webinar panel by selecting the orange arrow.

To be recognized, type your question in the “Question” box and select send.
Disclosures

• I have no disclosures to report.
Educational Objectives

• At the conclusion of this activity participants should be able to:
  ▪ Summarize the prevalence of common comorbid MH disorders
  ▪ Describe the relationship between concurrent MH disorders and OUD
  ▪ Identify the impact Mental Health Disorders can have on OUD treatment
• How common is the co-occurrence of OUD and Mental Health Disorders?

A. 0-25%
B. 26-50%
C. 51-75%
D. 76-100%
MHD are VERY Common in People with OUD

2015-2017 Ages 18-64, N=1500

- Serious Mental Illness: 26.90%
- Any Mental Illness: 64.30%

Jones CM, et al, 2019
Look for Depression!

- East coast Primary Care Center, 2006-2010
  - N=237 (M=73%, White=83%)
- 45% met criteria for a lifetime mood disorder

<table>
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<tr>
<th>Mental Health Dx</th>
<th>Lifetime, %</th>
<th>Current, %</th>
<th>Past, %</th>
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<tbody>
<tr>
<td>MDD</td>
<td>43%</td>
<td>19%</td>
<td>24%</td>
</tr>
<tr>
<td>Dysthymia</td>
<td>N/A</td>
<td>5.5%</td>
<td>N/A</td>
</tr>
<tr>
<td>Mania</td>
<td>0.8%</td>
<td>0%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Hypomania</td>
<td>1.7%</td>
<td>0%</td>
<td>1.7%</td>
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Savant et al, 2013
Chronic Pain + OUD = high rates of MHD

- Treatment research center for chronic pain and OUD, 2009-2013
  - N=170
- 75% had a current Axis 1 disorder
- 52% had a personality disorder

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<th>Anxiety Disorders (48%)</th>
<th>Mood Disorder (48%)</th>
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<tbody>
<tr>
<td>PTSD 21%</td>
<td>Major Depression 40%</td>
</tr>
<tr>
<td>GAD 16%</td>
<td>Dysthymia 11%</td>
</tr>
<tr>
<td>Panic w/out agoraphobia 16%</td>
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</tbody>
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Barry DT et al, 2016
What About Suicide and OUD?

- 44,965 suicide deaths in US in 2016
  - 15% by drug overdose
  - How many were opioid overdoses?
    - 1999: 2.2% 2014: 4.3%
    - Worse in 45-64 year-old age group

- SUDs increase the risk for suicide mortality
  - With OUD, hazard ratio = 2.37 (VA population)
  - SUDs, stress, financial concerns, all increase risk

Oquendo MA et al, 2018; Bohnert KM, 2017; Braden JM et al, 2017
The Connection

• MHD and OUD frequently co-occur
• MHD and OUD place people at higher risk for suicide

The Take Away

• Screen all OUD patients for mental health disorders
• Screen for suicide whether or not a person has a mental health symptoms or a disorder
Checkpoint: Why do we see this overlap?

A. Genetic vulnerabilities
B. Common brain areas affected
C. Life stress
D. Substances clearly cause mental disorders
E. A, B, C
F. None of the above
Shared Risk Factors for MHD and OUD

- Genetics
- Epigenetics
- Environmental factors
- Brain regions
- Stress
- Trauma/ACEs

Genetics

• Heritability
  - Depressive disorders: 50%
  - SUDs: 40-60%
    - Opioids: highest heritability

• Overlap in Gene/Proteins/Systems Involved
  - Example: Major Depressive Disorder
    - Opioid Receptors (mu and kappa)
    - Dopamine Receptors
    - Serotonergic System

Main Gene Systems Associated with OUD
Dopamine Receptors
  - Novelty seeking
  - Risk taking
Mu opioid receptor
  - Euphoria
  - Social attachment
  - Anhedonia

Tsuang MT et al, 1998; Wang SC et al, 2019; Fan T et al, 2019; Serretti A, 2017
Neuroanatomy Overlap

The Brain

- Reward
- Decision Making
- Impulse Control
- Emotions

- Dopamine
- Serotonin
- Glutamate
- GABA
- Norepinephrine

Stress

- Risk factor for
  - Mental disorders and SUDs
  - Relapse of both

- Impact areas of brain involved in
  - Motivation, learning, adaptation
    - Hypothalamic Pituitary Access
  - Impulsivity
    - Prefrontal cortex

- Alter Dopamine pathways
  - May enhance reinforcing properties of drugs

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
  ▪ 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?

Epigenetics and Environmental Factors

Epigenetic Mechanisms

- Environmental pressure
  - Histone modification, hydroxymethylation, nucleotide modification
  - Gene expression change
  - Behavior change

- Can be helpful or harmful
  - depending on type of pressure and duration
- Vulnerable time?

**Stress, trauma exposure** → alter stress response
**Opioid exposure** → alter response to substance in reward system

Browne CJ et al, 2019; Pena CJ et al, 2014
Depression and OUD

- Endogenous opioid system involved in both depression and OUD

- Mood disorders increased risk of transitioning from short-term opioid treatment to long-term opioid treatment

- Increased dose and duration of opioid treatment has been associated with developing depression

- Depression is a risk factor for misusing opioids
  - Used to treat insomnia and stress

Sullivan MD, 2018; Wang SC et al, 2019
The Connection, Revisited

• Psychiatric comorbidity is common and people with OUD are at higher risk for suicide, AND

• Etiologies and risk factors for MHDs and OUDs are similar
Checkpoint: What is the impact of MHD on OUD Tx?

A. There is no impact  
B. Not able to treat OUD until MHD is treated  
C. Not clear-need to treat OUD first  
D. Will need higher doses of buprenorphine  
E. Paradoxically reduces risk of suicide  
F. Less likely to complete treatment
The Problem: the OUD and MHD Treatment Gap

• 70-75% will NOT receive both mental health and 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)

Jones CM, et al, 2019
How does MHD Impact Opioid Use and OUD Tx?

- General Opioid Use & MHDs
  - *MHD Increases* risk for opioid misuse (HR = 1.42)
  - *MHD Increases* risk for overdose (HR = 2.3)

- OUD Treatment
  - *More* dissatisfied with SUD treatment
  - *Less* likely to complete OUD treatment if *no meds* (OR 1.14)
  - *Worse* treatment outcomes
    - Return to drug use
    - More symptoms of use disorder

**But...**

*No association* between comorbidity and none-completion *if on medications* for opioid use disorder!

Krawczyk N et al, 2017; Compton WM et al, 2003; Campbell CI et al, 2018
How does OUD Impact MHD Tx?

Main Point
- It will be extremely hard to treat a mental health disorder effectively if the person’s OUD is not treated
  - Missed follow-ups
  - Poor psychiatric medication adherence
  - Therapy interfering

Takeaway
- Start treating the OUD first!
- Monitor for higher rates of suicide
- Once OUD treatment is started (post induction) → evaluate and treat MHD soon thereafter
• Psychiatric comorbidity is common and people with OUD are at higher risk for suicide

• Etiologies and risk factors for MHDs and OUDs are similar

• If either untreated, both will impact patient outcomes
26yo Male with OUD

- It is now 1 month into treatment and the patient continues to admit to using heroin 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.
What would you do next?
26yo Male with OUD

A. Screen him for a mental health disorder.
B. Allow him to time to further stabilize because you often need to wait 6 weeks.
C. Refer him to a mental health clinic.
D. Screen him for additional substance use.
E. Ask him why he is using heroin still and address it.
F. Defer to a later appointment because you are already behind in the day (don’t want to get into that) and he has been doing well with OUD treatment thus far.
Follow-up: 26yo with OUD

• Reviewed with patient
  ▪ No other substance use
  ▪ No new medical issues

• 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
  ▪ 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.

The Connection, Revisited

• Psychiatric comorbidity is common and people with OUD are at higher risk for suicide
• Etiologies and risk factors for MHDs and OUDs are similar
• If either untreated, both will impact patient outcomes
• Screen and treat for mental health disorders in all patients with OUD
PCSS Mentoring Program

- PCSS Mentor Program is designed to offer general information to clinicians about evidence-based clinical practices in prescribing medications for opioid addiction.
- PCSS Mentors are a national network of providers with expertise in addictions, pain, evidence-based treatment including medication-assisted treatment.
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- No cost.

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Ask Now

http://pcss.invisionzone.com/register
Session Evaluation and Certificate

- Instructions will be provided in an email sent to participants an hour after the live session.
- Certificates are available to those who complete an evaluation.
- Recordings of today’s webinar can be accessed at [www.pcssNOW.org](http://www.pcssNOW.org) and [education.psychiatry.org](http://education.psychiatry.org).
Upcoming PCSS Webinars

Long-acting Buprenorphine Treatment for Opioid Use Disorder

Michelle Lofwall, MD DFASAM
University of Kentucky College of Medicine
Professor, Depts of Behavioral Science & Psychiatry

Center on Drug and Alcohol Research
Bell Alcohol and Addictions Chair
Medical Director, First Bridge and Straus Clinics

Tuesday, February 11th, 2020
12:00-1:00 PM EST
Educate. Train. Mentor

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