Co-occurring Opioid and Stimulant Use Disorders: Treatment and Management Approaches

Dr. J. Craig Allen, Medical Director, Rushford Center  
Dr. Marc Fishman, Medical Director, Maryland Treatment Centers  

March 21, 2023 from 2-3pm ET
Housekeeping

• You will be muted automatically upon entry. Please keep your phone line muted for the duration of the webinar.
• Webinar is being recorded and will be archived for future viewing at www.pcssNOW.org within 2 weeks.
• Submit questions in the Q&A box at the bottom of your screen.
Speakers

Craig Allen, MD  
Medical Director of Rushford Center and Vice President of Addiction Services at Hartford HealthCare Behavioral Health Network

Marc Fishman, MD  
Medical Director of Maryland Treatment Centers
Disclosures
Craig Allen, MD

Craig Allen, MD, faculty for this educational activity, has no relevant financial relationship(s) with ineligible companies to disclose.

The content of this activity may include discussion of off label or investigative drug uses. The faculty is aware that is their responsibility to disclose this information.
Disclosures
Marc Fishman, MD

Marc Fishman, MD, faculty for this educational activity, has received a consulting fee from Alkermes, Indivior and Drug Delivery LLC. These relevant financial relationships have been mitigated.

_The content of this activity may include discussion of off label or investigative drug uses. The faculty is aware that is their responsibility to disclose this information._
The overarching goal of PCSS is to train healthcare professionals in evidence-based practices for the prevention and treatment of opioid use disorders, particularly in prescribing medications, as well for the prevention and treatment of substance use disorders.
Educational Objectives

At the conclusion of this activity participants should be able to:

- Describe the broad context of co-occurring opioid and stimulant use and related overdose risk in the U.S.

- Review evidence-based strategies for treating opioid use disorders and promising practices for treating stimulant use disorders

- Identify evidence-based and promising strategies for treating co-occurring opioid and stimulant use disorders

- Review psychiatric co-morbidities associated with opioid and stimulant use disorders
Outline

• Background – scope of the problem
• Medication treatments
• Psychiatric comorbidity
• Patient interview
• Summary recommendations
• Q&A
Scope of the problem

Fentanyl Fuels Surge in U.S. Drug Overdose Deaths

Number of drug overdose deaths in the U.S., by drug class

- Synthetic opioids*
- All other drugs

* mostly fentanyl, excl. methadone
** estimates for 2021 are based on provisional data.
Source: Centers for Disease Control and Prevention

Statista
In 2022, DEA double fentanyl-laced, fake prescription pills seized in 2021. Also 131,000 pounds of methamphetamine, 4,300 pounds of heroin, and over 444,000 pounds of cocaine.
Scope of the problem

Cocaine –10-15% cocaine/crack supply contaminated with IMP
Figure 46. People Aged 12 or Older with a Past Year Substance Use Disorder (SUD): 2019

- Alcohol Use Disorder: 14.5M
- Illicit Drug Use Disorder: 8.3M
- Marijuana Use Disorder: 4.8M
- Pain Reliever Use Disorder: 1.4M
- Methamphetamine Use Disorder: 1.0M
- Cocaine Use Disorder: 1.0M
- Stimulant Use Disorder: 558,000
- Heroin Use Disorder: 438,000

Note: The estimated numbers of people with substance use disorders are not mutually exclusive because people could have use disorders for more than one substance.
Past Year Methamphetamine and Cocaine Use

Source: NHSDUH

Figure 13. Past Year Cocaine Use among People Aged 12 or Older: 2002-2019
Overdose deaths
Methamphetamine, Cocaine alone and combined with Opioids
Concurrent opioids + stimulants

• Very common
  ▪ Past month use of methamphetamine doubled among treatment-seeking opioid users from 2011-2017 18.8 % to 34.2%

• Patient reported rationales --
  ▪ Opioids take the edge off the stimulants, help come down
  ▪ Stimulants improve functionality, energy, or wakefulness when using opioids.
  ▪ Stimulants can be protective against opioid overdose *Dangerous misperception*

• Unintentional fentanyl exposure also increasing with lacing of the street supply and fake prescription pills

Sources:
-Harrison, P et al., 2020, Drug Alcohol Rev. 39(7):914-23
Biological hypothesis
We go together like…

• Chronic opioid exposure causes D2 hyperactivity and development of receptor super-sensitivity

• Opioid withdrawal as a state of exaggerated dopamine deficit

• Increased vulnerability to reinforcement by stimulants

• Reciprocally, stimulants may worsen opioid withdrawal, increasing opioid reinforcement

Medications for stimulant use disorder

- Enormous need
- Many attempts to find efficacy
- No home runs, nothing FDA-approved
- But some promising, and well worth trying
MOUD in Stimulant Use Disorder
Buprenorphine and XR-NTX Safe but Underutilized

Large (N=179K) multistate claims dataset over course of 1 yr

Findings:

▪ MOUD broadly safe and effective with other co-occurring SUDs including stimulants
▪ No difference in occurrence of OD or poisonings
  – Unfortunately,
    – other co-occurring SUDs reduce likelihood of MOUD compared to OUD alone (47% vs 30%; RR 0.66 for stimulants)
    – Lower adherence to treatment protocols by patients
    – Low tolerance of programs for with active co occurring stimulant use disorder

Stimulants
Methamphetamine vs Cocaine

- Both very high potency stimulants
- Overlapping clinical profiles and biology
- Regional and cultural differences in use patterns
- More similar than not
- More studies targeting cocaine than methamphetamine, expectation of dual coverage for medication treatments
Medications for stimulant use disorder
Agents that show promise

- Agonists
  - Mixed amphetamine salts (MAS), dextroamphetamine, methylphenidate, modafinil
- Topiramate
- Naltrexone
- Bupropion
- Topiramate + prescription stimulants
- Bupropion + Naltrexone
- Disulfiram
- Mirtazapine
- Buprenorphine (+ Naltrexone)
Prescription stimulants for stimulant use disorder
Possible implementation issues

- Attitudes
- Diversion and misuse
- Side effect profile and monitoring (mood, insomnia, BP)
- Duration of supply
- Medical staffing
- Direct administration (OTP-style?)
XR-Naltrexone for stimulant use disorder: Possible implementation issues

• Insurance coverage
• Q3 wk dosing
• Concern about co-use of opioids
• Medical staffing
• Patient acceptability
• What about adding bupropion?
• What about adding buprenorphine?
Therapy for Stimulant Use Disorder

- Cognitive-behavioral and contingency management interventions.
  - Ex. the Matrix Model—a 16-week treatment approach that combines behavioral therapy, family education, individual counseling, 12-step support, drug testing, and encouragement for non-drug-related activities.

- Contingency management interventions, tangible incentives in exchange for engaging in treatment and maintaining abstinence.
Psychiatric co-morbidity
Depression in OUD

Depression improves with MOUD in most, but not all OUD patients

Psychiatric co-morbidity
Stimulants

• Depression, ADHD, Psychosis, Anxiety, insomnia, bipolar disorder

• Presents questions for treatment
  ▪ Acute presentation
  ▪ Longer term

• Management of acute intoxication/withdrawal
  – benzodiazepines, beta-blockers, antiarrhythmic agents, and antihypertensive medications
  ▪ Agitation
  ▪ Psychosis
  ▪ Sleep disturbance
Co-occurring disorders diagnostic approaches: Sensitivity vs specificity

Take a stance

• Wait for the possibility of spontaneous resolution
  ▪ Better diagnostic precision
  ▪ Less possibility of unnecessary treatment
  ▪ Less opportunity for early and effective treatment

• Move ahead with a presumptive diagnosis
  ▪ Less diagnostic precision
  ▪ Possibility of over-aggressive treatment
  ▪ Better opportunity for earlier and more effective treatment
Approaches to treatment

Co-occurring psychiatric disorders

ADHD

- History of rapid spontaneous sx resolution probably predictive
- Pre-existing versus precipitated attentional issues
- Psychiatric Rx can be an engagement tool

Psychosis, depression, insomnia, bipolar (mania, depression, irritability, lability)

- History of rapid spontaneous sx resolution probably predictive
- But lingering sxs productive target for treatment

Insomnia

- low hanging fruit for relief

Depression

- Are mirtazapine or bupropion preferred anti-depresants?

Persistent psychosis and depression poor prognosis, but treat aggressively
Psychosis and Stimulants

• Common presentation in acute intoxication
• >50% develop psychotic sxs

• 80% resolution with 30d abstinence, but 10-15% persistence

• Common vulnerability: schizophrenia incidence 5x greater in relatives of those with meth-induced psychosis
Approaches to treatment for all Substance Use Disorders

ENGAGEMENT is KEY

- + PEERS/Recovery Support Specialists

- Harm reduction strategies. Eg. nPEP or PrEP, screen for infections, education on “overamping”, plan for treatment while lowering the barriers to access when someone is ready

- Naloxone for everyone
  - Naloxone saturation in a community saves lives
Patient interview recording
Stimulant use disorder medications: Summary conclusions

• Maybe not home runs, but very solid doubles, esp in the absence of anything better

• Are these ready for prime time? YES

• Does effect for one stimulant generalize to the other? Probable overlap

• What about real world conditions
  ▪ Patients, logistics, attrition, adherence, monitoring and support, insurance coverage
Case

• 48 M longstanding smoked cocaine, injection heroin, multiple treatment dropouts
• Stabilized on buprenorphine with opioid abstinence, but continues cocaine
• Topiramate titration to 300 mg/d, subjective reduction in craving, use reduced but persistent
• Side effects leading to topiramate dose reduction
• Addition of Mixed Amphetamine Salts - extended release (MAS-ER), titration to 50 mg/d, gradual improvement, best retention to date, intermittent HTN
Case

- 36 M chronic methamphetamine, hospitalized following suicidal depression with paranoid delusions, treated with SSRI and aripiprazole
- Intermittent relapse to MA but retained in OP treatment
- Switch SSRI to bupropion, switch to more sedating antipsychotic and titrate with waxing/waning psychosis and insomnia
- Add naltrexone, add topiramate
Overall

Conclusions, questions and next steps

• Very exciting to see our tool chest expanding! (although we can anticipate adoption will lag)
• MOUD-forward approaches, no reason to shy away because of concurrent stimulants
• Shouldn’t we aspire to a standard in which every patient offered full menu of options including these? What will it take?
• What about possible augmentation effects of more intensive counseling? CM?
• What about patient selection and treatment matching strategies? Sequencing?
• More shall be revealed – stay tuned for further research and real world experience
Never give up

• Therapeutic optimism is itself a very powerful intervention

• Persistent engagement despite struggles
  ▪ Treatment should not require already being cured
  ▪ Treatment should be offered for co occurring medical, psychiatric and SUDs
  ▪ Harm reduction strategies should be employed

• Re-engagement after drop-out and relapse
  ▪ Discussion and plan can help facilitate return

• Higher levels of care as available
Take home messages

• Try any and all of these
• Increasing treatment effectiveness even a little would be worthwhile. Any engagement in treatment for longer retention would be worthwhile.
• Prescription stimulants maybe most promising (but potential adoption barriers)
• Naltrexone (+/- bupropion), topiramate, disulfiram
• If able to retain, consider combos and serial trials
• Therapeutic optimism remains our best tool!
There will not be a quiz!  
(...but maybe Q&A)
References


• Brandt et al. Pharmacotherapeutic strategies for treating cocaine use disorder—what do we have to offer? Addiction. 2020.


• Siefried et al. Pharmacological Treatment of Methamphetamine/Amphetamine Dependence: A Systematic Review. CNS Drugs (2020) 34:337–365


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/
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
PCSS is a collaborative effort led by the American Academy of Addiction Psychiatry (AAAP) in partnership with:

<table>
<thead>
<tr>
<th>Addiction Technology Transfer Center</th>
<th>American Society of Addiction Medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Academy of Family Physicians</td>
<td>American Society for Pain Management Nursing</td>
</tr>
<tr>
<td>American Academy of Pain Medicine</td>
<td>Association for Multidisciplinary Education and Research in Substance use and Addiction</td>
</tr>
<tr>
<td>American Academy of Pediatrics</td>
<td>Council on Social Work Education</td>
</tr>
<tr>
<td>American Pharmacists Association</td>
<td>International Nurses Society on Addictions</td>
</tr>
<tr>
<td>American College of Emergency Physicians</td>
<td>National Association for Community Health Centers</td>
</tr>
<tr>
<td>American Dental Association</td>
<td>National Association of Social Workers</td>
</tr>
<tr>
<td>American Medical Association</td>
<td>National Council for Mental Wellbeing</td>
</tr>
<tr>
<td>American Osteopathic Academy of Addiction Medicine</td>
<td>The National Judicial College</td>
</tr>
<tr>
<td>American Psychiatric Association</td>
<td>Physician Assistant Education Association</td>
</tr>
<tr>
<td>American Psychiatric Nurses Association</td>
<td>Society for Academic Emergency Medicine</td>
</tr>
</tbody>
</table>
Educate. Train. Mentor

Funding for this initiative was made possible (in part) by grant no. 6H79TI081968 from SAMHSA. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.