Co-Occurrence Of Substance Use Disorders With Mood Disorders & Psychosis

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Speaker Profiles

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Robert Nelson, MD

**Position:** Dr. Nelson is a psychiatrist at DGR Comprehensive Behavioral Health, LLC in Wyomissing, PA and is also an attending psychiatrist at the Caron Foundation Treatment Center in Wernersville, PA.

**Education:** Dr. Nelson completed his medical studies at Duke University’s School of Medicine in Durham, NC, and he also completed his residency in Duke University’s Psychiatric Residency Education Program in Durham, NC. He is board certified by the American Board of Psychiatry and Neurology.
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Objectives

• Discuss the prevalence, complexity, and clinical impact of co-occurring mental illness and substance use disorders

• Address the specific challenges and treatment considerations in co-occurring substance use disorders and psychosis

• Address the specific challenges and treatment considerations in co-occurring substance use and mood disorders
Polling Question

In your clinical opinion, which of the following drugs of abuse have most widely impacted your community and practice?

A. Heroin
B. Cocaine or “crack”
C. Alcohol
D. Prescription opioids
E. Methamphetamine
SUBSTANCE ABUSE AND MENTAL HEALTH
Substance Use Disorder (SUD) and Mental Illness

- Co-occurring psychiatric and SUDs are highly comorbid in patients receiving treatment for mental illness:
  - In the United States (US), patients with SUDs are up to 4.5 times more likely to be diagnosed with comorbid psychiatric disorders versus those without SUDs.
- Compared with single-diagnosis conditions, co-occurring psychiatric disorders and SUDs (CODs) are associated with increases in:
  - Compulsive substance abuse behavior
  - Disease severity
  - Treatment resistance

### 2014 National Survey on Drug Use and Health Data (US)

<table>
<thead>
<tr>
<th>Disorder ( Millions)</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mental health (aged ≥ 18 years)</strong></td>
<td></td>
</tr>
<tr>
<td>Any mental illness</td>
<td>43.6</td>
</tr>
<tr>
<td>Serious mental illness</td>
<td>9.8</td>
</tr>
<tr>
<td><strong>Substance use (aged ≥ 12 years)</strong></td>
<td></td>
</tr>
<tr>
<td>Substance use disorder</td>
<td>21.5</td>
</tr>
<tr>
<td>Alcohol use disorder</td>
<td>17</td>
</tr>
<tr>
<td>Illicit drug use disorder</td>
<td>7.1</td>
</tr>
<tr>
<td>Both alcohol and illicit drug use disorder</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>Co-occurring mental illness and substance use (aged ≥ 18 years)</strong></td>
<td></td>
</tr>
<tr>
<td>Any mental illness and substance use disorder</td>
<td>7.9 (18.2% of any mental illness population)</td>
</tr>
<tr>
<td>Serious mental illness and substance use disorder</td>
<td>2.3 (23.3% of serious mental illness population)</td>
</tr>
</tbody>
</table>

Prevalence of Specific SUDs Differs Among Psychiatric Disorders

- The pattern of findings in the National Epidemiological Survey on Alcohol and Related Conditions (NESARC) study indicated that:
  - Mood and anxiety disorders may influence the transition from substance use to abuse/dependence
  - Schizophrenia may influence transition from abstinence to use (especially for marijuana)

NESARC Survey (2001–2002) — Lifetime Substance Use by Psychiatric Disorder

<table>
<thead>
<tr>
<th>Psychiatric Disorder, Respondents, %</th>
<th>Alcohol</th>
<th>Cocaine</th>
<th>Heroin</th>
<th>Opioids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood disorders</td>
<td>89.3 (n = 7727)</td>
<td>11.9 (n = 1103)</td>
<td>0.8 (n = 73)</td>
<td>10.6 (n = 851)</td>
</tr>
<tr>
<td>Anxiety disorders</td>
<td>88.6 (n = 6518)</td>
<td>10.4 (n = 743)</td>
<td>0.7 (n = 54)</td>
<td>8.9 (n = 605)</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>89.3 (n = 330)</td>
<td>20.3 (n = 76)</td>
<td>2.6 (n = 11)</td>
<td>17.6 (n = 62)</td>
</tr>
<tr>
<td>No disorder</td>
<td>80.3 (n = 23,897)</td>
<td>4.4 (n = 1258)</td>
<td>0.2 (n = 60)</td>
<td>3.0 (n = 786)</td>
</tr>
</tbody>
</table>
## Behavioral Therapies for Patients With SUD

### Integrated Dual Diagnosis Treatment (IDDT)
- Evidence-based model that addresses substance use and mental illness concurrently\(^1\)
- Combination of clinical and rehabilitative interventions implemented via collaborative treatment planning with a multidisciplinary team\(^1\)

### Family Behavior Therapy (FBT)
- FBT combines behavioral contracting, contingency management, and family collaboration in treatment planning to address CODs and other addiction-related problems\(^2\)

### Motivational Interviewing
- Motivational interviewing is utilized to help consumers resolve their ambivalence about treatment and identify unique goals and strategies for daily living\(^2\)

### Cognitive Behavioral Therapy (CBT)
- CBT focuses on training consumers to identify, anticipate and correct substance use behaviors via coping strategies that enhance self-control\(^2\)

### Contingency Management/Motivational Incentives
- Contingency management principles involve giving consumers tangible rewards, such as prize vouchers or monetary prizes, to reinforce positive abstinence behaviors\(^2\)

### Self-Help and Support Groups (eg, 12-Step Program)
- Group meetings that allow patients to share frustrations, successes, and information about community resources, specialists, and tips for recovery with each other\(^3\)

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Comprehensive Treatment for SUD Is Multifaceted

- Drug addiction treatment can include behavioral therapy, pharmacotherapy, or their combination\(^1\)
- Combinations of different evidence-based practices can increase therapeutic effect by exerting a synergistic impact on symptoms\(^1,2\)
- Psychoactive medications such as anti-anxiety agents, mood stabilizers, and antipsychotic medications are frequently utilized in treating patients with CODs\(^1\)

Co-occurring SUDs and Psychiatric Disorders: Association With Poor Outcomes

• Substance abuse in patients with severe psychiatric disorders (eg, schizophrenia, bipolar disorder) contributes to\(^1\):
  – A worse course of illness
  – Increased numbers of relapses and rehospitalizations
  – Impaired social functioning
  – Housing instability and homelessness
  – Medical and legal problems

• Poor outcomes in patients with comorbid psychiatric and SUDs are also characterized by\(^2\):
  – High rates of inpatient and outpatient treatment dropout
  – Increased suicidality

• The cost of care is significantly higher than the cost for individuals solely diagnosed with SUDs\(^2\)

Co-occurring SUDs and Psychiatric Disorders: Burden of Dual Diagnosis

Comparison of Service Expenditures (1992) Among Medicaid Beneficiaries*

<table>
<thead>
<tr>
<th>Patient type</th>
<th>Mean cost per person for total health-service expenditures</th>
<th>Age- and sex-adjusted mean annual psychiatric-treatment expenditure (patients with schizophrenia)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients with mental illness treated for substance abuse</td>
<td>$22,917</td>
<td>$23,169</td>
</tr>
<tr>
<td>Patients with mental illness not treated for substance abuse</td>
<td>$20,049</td>
<td>$19,568</td>
</tr>
<tr>
<td>Patients with mental illness with no known substance abuse</td>
<td>$13,930</td>
<td>$12,350</td>
</tr>
</tbody>
</table>

*Study based on 1992 data; N = 16,395.

Comorbid Mental Illness and SUDs: the Unmet Need

• The severity and prognosis of the primary mental illness is often worsened in the context of substance dependence\(^1\)

**Despite this:**

• According to the Substance Abuse and Mental Health Services Administration, only 42% of substance use treatment facilities employed mental health screenings (2009)\(^2\)

• Additionally, ~50% of patients with comorbid disorders in substance use treatment reported never having received any mental health treatment\(^2\)

SUDs AND PSYCHOTIC DISORDERS
Polling Question

In your clinical experience, what percentage of your patients with psychotic disorders have a co-occurring SUD?

A. < 10%
B. 11% to 25%
C. 26% to 50%
D. 51% to 75%
E. > 75%
Prevalence and Risk Factors of Co-occurring SUDs and Schizophrenia

- The lifetime prevalence of substance use for individuals with schizophrenia has been estimated to be ~50%\textsuperscript{1,2}
- Schizophrenia patients report consistently higher rates of substance abuse than the general population, especially\textsuperscript{2}:
  - Cannabis
  - Alcohol
  - Cocaine
- Comorbidity of substance use and schizophrenia has been associated with\textsuperscript{1,3}:
  - Younger age (with the exception of alcohol users)
  - Male sex
  - Antisocial personality disorder
  - Low education attainment
  - Previous violent offences
  - Family history of substance use problems

# Treatment Challenges of Co-occurring SUDs and Psychoses

## Treatment Options
- Combined interventions needed for treatment: medications treat psychosis symptoms, but behavioral approaches needed to aid in recovery¹
- Psychosocial treatments may include²:
  - Assertive community treatment (ACT) teams
  - Integrated stage-based motivational models
- Same first-line pharmacotherapy agents recommended in the American Psychiatric Association (APA) Practice Guidelines for the Treatment of Patients With Schizophrenia

## Diagnostic Challenges
- Negative functional and symptomatic effects may occur at relatively low levels of intake due to existing deficits and vulnerabilities of people with psychosis³
- Psychosis can be induced by various substances and observed with chronic use as well as during specific substance-induced states, including intoxication and withdrawal²
- Determining retrospective timelines showing both mental illness and substance use symptoms longitudinally to establish temporal sequence⁴

## Treatment Challenges
- Patients are particularly vulnerable to self-neglect and morbidity associated with substance use, which can result in worsening psychosis²
- Pharmacotherapy choice should be based on vulnerabilities regarding side effects, interactions with abused substances, and other safety considerations²
- Alcohol/cocaine abuse may lead to liver toxicity/cardiac damage; tobacco smoking lowers levels of some antipsychotics; increased somnolence/orthostatic hypotension may occur with sedating drugs when taken with antipsychotics²

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Polling Question

In your clinical experience, what percentage of your patients with mood disorders have a co-morbid SUD?

A. < 10%
B. 11% to 25%
C. 26% to 50%
D. 51% to 75%
E. > 75%
Prevalence and Risk Factors of Co-occurring SUDs and Mood Disorders

- The lifetime prevalence rate for a co-occurring SUD among individuals with a mood disorder has been estimated at 32% (particularly common among those with bipolar disorder [56%])¹

- The following have been suggested to be potential predictors of co-occurring mood disorders and SUDs¹-⁴:
  - Younger age
  - Male sex
  - History of anxiety disorders, in particular, general anxiety disorder
  - Physical abuse
  - Psychosis
  - Early onset of mania (in patients with rapid cycling bipolar disorder)
  - Genetic factors — family history with mood disorders and/or substance abuse
  - Specific diagnosis on COD (e.g., bipolar disorder, depression, and disorders that render individuals vulnerable to “kindling” or neuronal sensitization)

- Poor outcomes in comorbid mood disorder and patients with SUD have been suggested to be related to²,⁵,⁶:
  - Sex: more common in males
  - Substance relapse
  - Reduced adherence to therapy
  - Poorer response to antidepressant therapy
  - Recovery from substance abuse problems

# Treatment and Challenges in Co-occurring Mood Disorders and SUDs

## Treatment Options
- Psychotherapy options may include:
  - Group or individual psychosocial counseling
  - Integrated group therapy
  - Contingency management
- Antidepressants have been the predominant research focus in treating co-occurring SUD and MDD

## Diagnostic Challenges
- No clinically validated biomarkers for either MDD or bipolar diagnosis
- Diagnosis of MDD and bipolar disorder is complicated in patients actively using substances during assessments is complicated
- Distinguishing independent mood disorders from substance-induced mood disorders can be difficult

## Treatment Challenges
- High heterogeneity of treatment effects across few randomized, prospective clinical studies
- Adoption of medication-assisted treatment of co-occurring mood and substance use disorders is low in the United States
- Delaying antidepressant treatment to identify substance-induced symptoms may be challenging

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MDD, major depressive disorder; SSRI, selective serotonin reuptake inhibitor.
DISCUSSION