Co-occurring Psychiatric and Substance Use Disorders in Youth

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Marc Fishman, MD, is an addiction psychiatrist, Medical Director of Maryland Treatment Centers, and a member of the Psychiatry faculty of the Johns Hopkins University School of Medicine. Dr Fishman leads Maryland Treatment Centers, a regional behavioral health care provider, which includes Mountain Manor Treatment Centers in Baltimore and Emmitsburg as well as several other inpatient and outpatient programs. In that role he has been involved in development and implementation of innovative programming in addiction and co-occurring disorder treatment. His clinical specialties include treatment of drug-involved and dual-diagnosis youth, opioid addiction in adolescents and adults, and addiction with co-occurring psychiatric disorders. His research work has focused on medication treatment for SUDs as well as, models of care and treatment outcomes in youth, in particular opioid addiction. He has been a president of the MD Society of Addiction Medicine and is currently a member of its Board.
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- Resource & referral support
- Training & education
- Regionally specific social work co-location (Salisbury University and Morgan State University)
- Project ECHO®

Coming soon!

- Direct Telespsychiatry & Telecounseling Services
- Care coordination
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BHIPP is open.

The BHIPP phone line remains open during this challenging time to support primary care clinicians in assessing and managing the mental health needs of their patients.

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• Phone consultation for clinical questions
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• Technical assistance to practices implementing or expanding office-based addiction treatment services
• MACS TeleECHO™ Clinics: collaborative medical education through didactic presentations and case-based learning

1-855-337-MACS (6227) • www.marylandMACS.org
Consultant for Alkermes, US World Meds, Drug Delivery LLC, Verily Life Sciences, Danya, ASAM, National Association of Drug Court Professionals

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Outline (Whirlwind overview)

• Scope of the problem: vulnerability and risk
• Assessment, formulation and diagnosis
• Treatment
  – General approaches
  – Particular substances - cannabis
  – Particular symptoms and disorders
• Cases
Summary

- Co-occurring psychiatric symptoms and disorders common in SUD, reciprocally exacerbating
- Differentiation of sxs vs disorders inexact, explicit tradeoff in sensitivity vs specificity
- Aggressive Rx largely safe and effective
- Special circumstances pertain to specific substances, conditions and treatments
Scope of the problem: vulnerability and risk
Addiction and Mental Illness are Developmental Disorders

½ psychiatric disorders onset before age 15
¾ psychiatric disorders onset before age 24
Past Year Major Depression Associated with Initiation of Substances (Age 12-17)

Depressive symptoms correlate with substance use outcomes
Adolescents following residential treatment

Subramaniam et al. JAACAP. 2007.
Assessment, diagnosis, and formulation
Psychiatric symptoms in our patients?

Can we do better?
“Dual Diagnosis”
Cast the net wide

• High prevalence of co-morbidity
• Pre-morbid, drug-induced, and drug exacerbated conditions

• When was the last time you saw a troubled patient with only 2 diagnoses?
Co-occurring Disorders
Which Comes First?
• Over time, dependence resets balance of reward

• Use becomes pursuit of relief, capacity for reward decreased, negative state the new “normal”
Salient Features of Psychiatric History

- Family history of psychiatric problems
- Symptoms prior to substance use
- Symptoms during episodes of abstinence or reduced substance use
- Previous evaluations
- Previous treatments
- Previous response to medications
- Severity and persistence of psychiatric symptoms
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
MACS

Treatment

[Image of cartoon with Lassie exclaiming, "Lassie! Get help!!"]
Co-occurring treatment

• Concurrent treatment of substance use and psychiatric disorders
• Use of standard psychiatric medications
• Adoption of a longitudinal view, with a view to engagement over the long term
• Emphasis on active, even assertive, engagement of the patient and family
• Expectation of incremental progress, with remitting relapsing course
• Insight may not come first
Treatment approaches

• Which is better: Medications or counseling/psychotherapy?

• Yes.
Fluoxetine + CBT in Adolescents with Depression + SUD

Riggs et al 2007

Depression Remission
Fluoxetine v Placebo

Higher than expected depression remission in both groups suggests CBT may have contributed to depression treatment response similar to that reported in adult studies (Nunes and Levin Treatment of depression in patients with alcohol and drug dependence: a meta-analysis JAMA 2004)
RCT Fluoxetine + CBT in Adolescents with Depression + SUD

Change in Depression Severity (CDRS-R score)
Fluoxetine v Placebo

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Week 5</th>
<th>Week 9</th>
<th>Week 13</th>
<th>Week 16</th>
<th>Week 17</th>
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<tbody>
<tr>
<td>Fluoxetine + CBT (n=63)</td>
<td></td>
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<tr>
<td>Placebo + CBT (n=63)</td>
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</tr>
</tbody>
</table>

P<.01
P<.05

Riggs et al. Archives of Pediatric and Adolescent Medicine 2007
Reductions in substance use associated with reductions in depression

Both Placebo (p<.0001) and Fluoxetine (p<.0003) Responders have significant pre-post reduction whereas Non-Responders in each group do not. Responders differ significantly from Non-Responders (p < .02)

Riggs et al.
Specific Topics

Particular substances - cannabis
Particular symptoms and disorders
Cannabis and co-occurring disorders

Mood & Anxiety Disorders Among Respondents with Marijuana Dependence (NESARC)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Marijuana Dependence</th>
<th>General Population</th>
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<tbody>
<tr>
<td>Any Mood Disorder</td>
<td>61</td>
<td>20</td>
</tr>
<tr>
<td>Any Anxiety Disorder</td>
<td>49</td>
<td>16</td>
</tr>
<tr>
<td>Depression</td>
<td>47</td>
<td>17</td>
</tr>
<tr>
<td>Dysthymia</td>
<td>47</td>
<td>17</td>
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<tr>
<td>Mania</td>
<td>24</td>
<td>20</td>
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<tr>
<td>Hypomania</td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>Panic w/ Agoraphobia</td>
<td>20</td>
<td>17</td>
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<tr>
<td>Panic w/o Agoraphobia</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Social Phobia</td>
<td>9</td>
<td>4</td>
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<tr>
<td>Specific Phobia</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>Generalized Anxiety</td>
<td>21</td>
<td>4</td>
</tr>
</tbody>
</table>

NIDA, 2011
Major Depression

• “I’m not depressed” (meaning sad) – Easy to confuse depression “little d” and “big D”
• Affective instability very prominent
  – Irritability/anger, lability (“mood swings”), over-reactivity
  – Depression most common cause (not bipolar)
• Antidepressants + CBT very effective
• Treatment improves outcomes
Cannabis associated with depressive symptoms

Pooled data, 4 longitudinal studies, n=6900
CUD dangers in mood disorders

- Youth ages 10-24 with mood disorders, n=200K, Ohio Medicaid claims
- CUD in 10%
- CUD associated with
  - All cause mortality (AHR 1.6)
  - Death by OD (AHR 2.4)
  - Death by homicide (AHR 3.2)
  - Non-fatal self harm (AHR 3.3)

Fontanella. *JAMA Peds*. 2021
Anxiety

- A symptom not a disease
- “I’ve tried everything and nothing works except xanax”
  - Characteristic side effect profile of benzos including worsening anxiety, cognitive impairment, subtle intoxiciation
  - Immediate relief vs lasting relief
  - Benzodiazepines rarely a successful strategy
- SSRI + CBT usually most effective, but takes time (“I don’t have depression”)
- Desensitization, self-soothing, tools for stress relief
ADHD?

- ADHD common but differential of inattention broad
  - Depression and anxiety
  - Substance use (eg MJ)
  - Demoralization and stress

- Stimulants improve attention but often problematic
  - Exacerbation of prominent affective instability
  - Very reinforcing

- Treat ADHD, continue stimulants if doing well, but consider other non-stimulant Rx that also treats mood disorder
  - I know you can’t “feel it,” that’s perfect

- If stimulants, use long acting preparations, watch for dose escalation, short supplies, consider abstinence contingency
Stimulant side effects

- Worsening of affective disorders and mood instability
- Anxiety, irritability, depression
- Less frequently psychosis
- Misuse and diversion
Side effects
Smart drugs?  
Characteristics of college students who misuse Rx stimulants

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Odds ratio</th>
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</thead>
<tbody>
<tr>
<td>Substance Use, past 30d</td>
<td></td>
</tr>
<tr>
<td>Marijuana</td>
<td>11</td>
</tr>
<tr>
<td>Ecstasy</td>
<td>16</td>
</tr>
<tr>
<td>Cocaine</td>
<td>20</td>
</tr>
<tr>
<td>Opiates</td>
<td>11</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>6</td>
</tr>
<tr>
<td>Frequent binge drinking</td>
<td>7</td>
</tr>
<tr>
<td>Passenger with a drunk driver</td>
<td>7</td>
</tr>
<tr>
<td>Drove after drinking</td>
<td>4</td>
</tr>
<tr>
<td>Drove after binge drinking</td>
<td>5</td>
</tr>
</tbody>
</table>

Higher rates of:  
Skipping classes  
Time “going out”  
Lower rates of:  
Time studying

N= 1,253.

N= 10,904
Don’t forget psychosocial treatments

- Organizational skills
- Time management skills, scheduling
- Cognitive redundancy
- Distraction reduction, avoid multi-tasking
- Orthoses – notes, calendars, electronic reminders, help from others
- Rehearsal of skills, not insight
Psychosis

- Relief of psychosis is oddly not as reinforcing as you would think
- Poor self-recognition of impairment is the rule
- Poor adherence is common
- Our medicines are good but not good enough
- Rehabilitative and habilitative strategies are key
- Low emotional expression (EE) approaches
- Residual symptoms are common
- Aggressive treatment critical
- Use long acting injectable antipsychotics early if possible
Cannabis and psychosis
Prospective exposure cohort study

- 10 yr prospective cohort of 1923 German youth (14-24 at baseline)
- Examination of change over 3 time points

Kuepper et al British Med J. 2011

OR = 1.9
OR = 2.2
Insomnia

- Very common symptom, related to affective disorder, behavioral sleep cycle disruption, withdrawal
- Immediate relief – good engagement tool
- Additional benefit in treatment of affective disorder
Conclusions

• Psychiatric co-morbidity in youth SUDs is common, increases severity of impairment and worsens outcome

• Treatment services scarce, unmet need enormous

• Presentation can be confusing and diagnosis difficult

• Treatment is complex, requires thoughtfulness, careful monitoring, systematic testing of hypotheses

• Treatment is effective as part of integrated approach

• Active and informed role of non-psychiatrist clinicians and program support team is essential

• You are the main ingredient
Treatment works! Recovery happens!

Bobo remained free the rest of his life, although he did find it necessary to seek counseling.
Case

- 15 YO girl, parents describe social withdrawal, irritability, change in peer group, and academic decline; no knowledge of SU
- She acknowledges not feeling herself. Preoccupying worries, “cranky”, concentration decline, sleep disturbance
- Volunteers she has experimented with marijuana and beer; denies recent use
- Further exploration reveals ongoing weekend marijuana use; she acknowledges depression but believes the substances are “no big deal.”
Case

- 20M OUD abstinent from opioids (but not cannabis) with MOUD
- Hx of mood instability, episodes of low mood and suspiciousness (possibly correlated with increased periods of cannabis use)
- Variably receptive to Rx though helpful when he took it, repeatedly asks for stimulants for “ADHD”
Therapeutic optimism remains one of our best tools!