Co-Occurring Disorders
Psychiatry and Substance Use
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Chief Medical Officer

Dr. Abid Nazeer is board certified in Psychiatry and Addiction Medicine, as well as certified in BRIDGE medical device procedures for opiate withdrawal. He has expertise in pharmacogenetic testing and its clinical application, plus is a member of the American Society of Addiction Medicine (ASAM).

Dr. Nazeer oversees psychiatric and addiction medicine care at Symetria Recovery®, responsible for guiding The Symetria Method® protocol at the company’s network of treatment centers. He oversees medication management for patients with a co-existing psychiatric illness or those who are on medications for psychiatric diagnosis; educates staff and patients on the potential impact of unresolved psychiatric symptoms (such as anxiety or depression) can have on the recovery process; and oversees the development of treatment plans for patients with dual diagnosis.

Dr. Nazeer also runs Advanced Psychiatric Solutions, a private practice in Oak Brook, IL, that specializes in interventional psychiatry, treatment resistant depression, and post-traumatic stress disorder (PTSD). He was the first psychiatrist in Illinois to offer IV ketamine infusion therapy in an outpatient clinic setting for the treatment of psychiatric conditions.
What is Co-Morbidity

“When two disorders or illnesses occur in the same person, simultaneously or sequentially, they are described as co-morbid. Comorbidity also implies interactions between the illnesses that affect the course and prognosis of both”

MENTAL DISORDER
A diagnosable mental, behavioral, or emotional disorder (other than substance abuse) that interferes with major life activities

SUBSTANCE USE DISORDER
The DSM-IV defines as either substance abuse or dependence, while the DSM-V uses the term Substance Use Disorder

CO-MORBIDITY
Commonality
How Common is Comorbidity between Mental Illness and SUD’s

The high prevalence rate of this comorbidity has been widely documented in numerous population studies over the past 30+ years.
Commonality
How Common is Comorbidity between Mental Illness and SUD’s

• Data shows that persons diagnosed with a mood or anxiety disorder are about twice as likely to suffer from a SUD compared to the general population.
• The opposite is true as well; persons diagnosed with a SUD are twice as likely to suffer from a mood or anxiety disorder.

HIGHER PREVALENCE OF MENTAL DISORDERS AMONG PATIENTS WITH DRUG USE DISORDERS
## Commonality

How Common is Comorbidity between Mental Illness and SUD’s

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>53.5%</td>
<td>of people with a psychiatric disorder in their lifetime have had a SUD</td>
</tr>
<tr>
<td>51%</td>
<td>of people with a SUD in their lifetime have also had a psychiatric disorder in their lifetime</td>
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<tr>
<td>89%</td>
<td>of people develop a mental illness earlier than a substance use d/o</td>
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Commonality

How Common is Comorbidity between Mental Illness and SUD’s

• The highest rates of co-occurring disorders are with bipolar mania (6.8x risk) and anti-social personality/conduct disorders (13.9x risk)

• Anxiety disorders have a higher change of developing before a substance use disorder than mood disorders do

• The two most prevalent co-occurring anxiety disorders are Generalized Anxiety Disorder followed by Post Traumatic Stress Disorder (PTSD)

• 1 in 5 veterans returning from Afghanistan have reported symptoms of PTSD or Major Depressive Disorder (MDD), and half of all veterans with PTSD have a co-occurring SUD
Is Addiction a Psychiatric Condition?
(Mental Illness)

- They both play on the same field and affect the same neurotransmitters (Serotonin, Norepinephrine, Dopamine, Glutamate, Gaba)
- They both affect and change the brain neurotransmitter functioning
- They both disturb the normal hierarchy of needs and desires
- They both can result in compulsive behaviors that override the ability to control impulses
- They both are caused by overlapping factors such as underlying brain deficits, genetic vulnerability, and/or early exposure to stress/trauma
- The Diagnostic and Statistical Manual of Mental Disorders (DSM) included substance use disorders
- The treatment for both is similar (medications, psychotherapy, and psychosocial approaches overlap)
Co-Morbidity of substance use and other psychiatric disorders is both

- Dopamine is a neurotransmitter (a chemical that carries a message from one neuron to another) that is affected by addictive substances but changes to dopamine regulation when involved in development of depression, psychosis, and other psychiatric conditions.
- Some antidepressants, most Attention Deficit Hyperactivity Disorder (ADHD) medications, and all anti-psychotics target dopamine regulation.
- Dopamine pathways are involved in the body’s stress response.
- Stress is a known risk factor for a range of mental disorders and also increases vulnerability to developing a substance use disorder.
High prevalence of comorbidity does not always mean that one caused the other, but that is true some of the time.

- Cocaine use can produce symptoms of psychosis, mania, and anxiety
- Cocaine withdrawal can produce depression symptoms
- Opiate use can produce symptoms of ADHD and depression
- Opiate withdrawal can produce symptoms of anxiety, insomnia, ADHD, and dysphoria
- Cannabis use can cause depression, panic disorder, psychosis
- Sedative and alcohol use can produce dementia symptoms and mood

The above are examples of “substance induced disorders”
But Sometimes it is Just Hard to Tell

- Subclinical symptoms of a psychiatric illness can prompt substance use as a way of “self-medicating”
- Imperfect recollection of when the drug use started or when the psychiatric symptoms started
- If substance use comes before symptoms of a psychiatric condition, the changes to brain structure and function can spark the underlying propensity to develop that psychiatric condition
- If the psychiatric condition develops first, the associated changes in brain activity may increase vulnerability to abuse a specific substance
Why Does One Self-Medicate?

And With What “Drug of Choice”?

Underlying psychiatric disorder will cause changes to the neurotransmitter profile and circuitry – which will then fit well with specific drugs of abuse.

- Increased awareness of the positive effects of the drug
- Decreased awareness of the negative effects of the drug
- Alleviates the unpleasant symptoms of that psychiatric condition
- Alleviates the unpleasant side effects of the medication used to treat that psychiatric condition
Why Does One Self-Medicate?

Examples of Self-medication

• Someone with panic disorder abuses benzodiazepines like Xanax
• Someone with Social Anxiety Disorder abuses alcohol
• Someone with ADHD abuses cocaine
• Someone with MDD abuses opiates
• Someone with insomnia abuses cannabis
Looking Under the Hood
Let’s See the Engine – Neurotransmitters
Looking Under the Hood
Symptoms and Illness Regulated by DOPAMINE

• It is an excitatory neurotransmitter, regulating pleasure, reward, gratification, motivation, attention, concentration, focus
• Low dopamine transmission seen in MDD and ADHD
• High dopamine transmission seen in psychosis (D2 receptors) or manic/agitated states
• Inappropriately high dopamine transmission in the pleasure/reward pathway of the brain is seen in addiction
• As you increase dopamine in other pathways of the brain you progress from being happy/energetic/focused → anxious/paranoid/obsessed → manic/psychotic/agitated
Looking Under the Hood
Substances and Medications that Impact DOPAMINE

• Antidepressants (Wellbutrin)
• Stimulants (amphetamines and methylphenidate)
• Methamphetamine
• Cocaine
• Antipsychotics (Abilify, Haldol, etc)
Looking Under the Hood

Symptoms and Illness Regulated by SEROTONIN

- Regulates mood, anxiety, fears, relaxation, learning, clarity of thought, obsessions, compulsions, sleep cycle, digestion, satiety
- Low serotonin seen in MDD, Obsessive Compulsive Disorder (OCD), PTSD, panic disorder
- Too much serotonin causes anxiety, and too little causes anxiety
Looking Under the Hood
Substances and Medications that Impact SEROTONIN

SUBSTANCES
• MDMA (Ecstasy), Tramadol (mild opiate as well, for pain)

MEDICATIONS
• Selective serotonin reuptake inhibitors (SSRI’s) (Sertraline, escitalopram, etc.)
• Serotonin and norepinephrine reuptake inhibitors (SNRI’s) (Venlafaxine, Duloxetine)
• Atypical serotonin regulators (Mirtazapine, buspirone, etc.)
• These medications can cause relative serotonin overload initially which results in anxiety, jitters, bruxism, diarrhea, flushing, sweating, tachycardia
Looking Under the Hood

Symptoms and Illness Regulated by NOREPINEPHRINE (noradrenaline)

- Regulates mood, pain, stress response, energy, concentration/attention, blood pressure, heart rate, inflammation
- SNRI’s like Duloxetine can treat both depression/anxiety as well as pain conditions (fibromyalgia, neuropathy)
- Pain worsens depression and depression worsens pain…norepinephrine is the biochemical overlap for them
Looking Under the Hood
Let’s See the Engine – Neurotransmitters

Serotonin, dopamine, and norepinephrine all have important functions on their own, but ultimately they work to serve the BIG TWO… **GABA and Glutamate**

- **GABA** – The main inhibitory neurotransmitter of the brain (brakes)
- **Glutamate** – The main excitatory neurotransmitter of the brain (gas pedal)
- **Glutamate and GABA** oppose each other but work in tandem to maintain balance (Homeostasis)
Looking Under the Hood
Let’s See the Engine – Neurotransmitters

GAMMA-AMINOBUTYRIC ACID (GABA) INHIBITION / GLUTAMATE EXCITATION

DEATH
COMA
SLEEP
AROUSAL
EPILEPSY
DEATH

MORE INHIBITION
GOOD BALANCE
LESS INHIBITION
Cocaine Use Disorder

TREATMENT

- No FDA approved medications as of yet for cocaine dependence
- Propranolol for cocaine intoxication/withdrawal – to reduced hypertension, tachycardia, and anxiety
- Topiramate – to reduce impulsive impulsivity/urges
- Disulfiram (Antabuse) for maintenance of sobriety
- Novel approaches (Ketamine, N-Acetylcysteine)
- Psychotherapy approaches

- Agonist medication approach: Use of drugs that share similar pharmacodynamics (effects on the body) but distinct pharmacokinetic characteristics (bioavailability, onset of action, duration of action). Requires high level of monitoring due to abuse potential, but can be successful in co-occurring untreated ADHD
  - Stimulants (Vyvanse, Amphetamine/dextroamphetamine, methylphenidate)
  - Modafinil
  - Bupropion
Benzodiazepines

• Commonly prescribed medication class for anxiety, insomnia, alcohol withdrawal, seizure control, muscle relaxation, inducing amnesia for uncomfortable procedures

• Strong GABA activators/agonists – quick onset of action, the desired therapeutic effect of anxiety relief occurs per dose, compared to very slow onset of action for corrective anti-anxiety medications (e.g. SSRI’s)

• Short acting (Alprazolam, Midazolam, Triazolam) – long acting (Chlordiazepoxide, Clonazepam, Diazepam)

• Long term use causes tolerance, rebound anxiety from disruption of glutamate/GABA homeostasis, aggression/hostility, muscle tension

• Withdrawal syndrome can be fatal and include dysphoria, diarrhea, heightened sensory perception, muscle cramps, vomiting, sweating, formication, pins-needles sensation, tremors, clouded consciousness, and seizures

• Intoxication can be deadly (from Central Nervous System (CNS) and Respiratory Depression), especially when taken with other drugs with CNS/Respiratory Depression (e.g. Opiates and Alcohol)
Benzodiazepines

TREATMENT

• Outpatient detox should be reserved for cases where total benzodiazepine intake is in therapeutic range or close to it.

• First switch to a long acting benzodiazepine at an equivalent dose, with control of acute withdrawal symptoms.

• Tapering slowly has higher success rates, 10%-25% dose reduction q 2-4 weeks.

• Augmentation with anti-epileptics (Gabapentin, Depakote)

• Alternative approach used in some inpatient settings involves barbiturate use (Phenobarbital)

• Constant monitoring of Urine Drug Screen (with GCMS metabolite breakdown), therapeutic contract, regular checks of state Prescription Monitoring Program, psychotherapy/education, and efforts at correcting underlying comorbid psychiatric disorder.

ALWAYS REFOCUS ON THE END GOAL OF REACHING HOMEOSTASIS AND THE FACT THAT ANXIETY WILL BE REDUCED ONCE THAT HAPPENS, BUT YOU NEED TO BE FREE OF DAILY/CHRONIC BENZODIAZEPINE USE FOR THAT TO OCCUR.
Treating Substance Use Disorders

What’s the Ideal Approach for Treatment?

- One treatment destination with comprehensive care, multiple levels of care (ASAM criteria should be used), individualized approach, pharmacy/dispensing on site, transparency in real time between all disciplines of the treatment team.

- Comprehensive treatment with early screening and intervention for psychiatric comorbidities. Delay or omission of psychiatric care will worsen outcomes for the SUD.

- Full spectrum of clinical services and therapy.

- Full spectrum of Medication Assisted Treatment options.
Treating Substance Use Disorders

What’s the Ideal Approach for Treatment?

Mental illness and substance use disorders are intertwined. Their neurobiology is overlapping.

They predispose each other, precipitate each other, and perpetuate each other.

It only makes sense to treat them together.
Symetria Recovery®'s unique approach to opioid addiction treatment – The Symetria Method® – combines behavioral counseling and Medication Assisted Treatment (MAT) delivered in an outpatient setting. Unlike traditional recovery centers and rehab programs, we focus on treating the whole person using the latest techniques and therapies proven to provide the best opportunity for achieving sobriety and maintaining a lifestyle of recovery.

Symetria Recovery is fully accredited by the Commission on Accreditation of Rehabilitation Facilities (CARF), licensed by the Division of Alcohol and Substance Abuse, and licensed by the Drug Enforcement Administration (DEA).
References


THANK YOU FOR ATTENDING

Help is here 24/7. Please contact us at 866-644-7579 or www.symetriarecovery.com

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