

OPIOIDS, ADDICTION, AND THE BRAIN

Presenters:

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Opioids, Addiction, and the Brain

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Language is important

NO!

- **Substance Abuse**
- Clean vs. Dirty
- Passed vs. Failed
- Drug of “Choice”
- Addict, Junkie, Drunk

YES!

- **Substance Use Disorder**
Substance misuse
- Positive vs. Negative
- Drug of addiction
- A person...
 - with a substance use disorder
 - who uses
 - - who is addicted



What is ADDICTION (i.e. Severe Substance Use Disorder)?

- ✓ **Intense cravings and compulsive use that continues *despite negative consequences*.**
- ✓ **Physical and mental tolerance that drive the person to use the drug of addiction as if life depends upon it.**



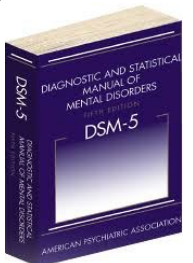
**Moore v. Texas,
137 S. Ct. 1039, 1048 (2017)**

Finding an 8th Amendment violation where the state disregarded “current medical diagnostic standards” regarding intellectual impairment set out in DSM-5, “clinging” instead to old legal construct that was “wholly nonclinical.”

Diagnostic and Statistical Manual of Mental Disorders, 5th Ed. (DSM 5)

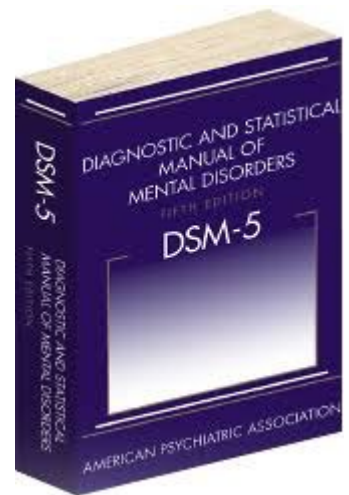
Substance Use Disorder (SUD) is... (p. 483):

- a “cluster of cognitive, behavioral, and physiological symptoms indicating that the individual **continues using the substance despite significant substance-related problems.**”
- “An important characteristic of substance use disorders is an underlying **change in brain circuits** that may persist beyond detoxification, particularly in individuals with severe disorders.”
- “The behavioral effects of these brain changes may be exhibited in the **repeated relapses** and intense drug cravings when the individuals are exposed to drug-related stimuli...”



SUDs are separated by classes of drugs in the DSM 5

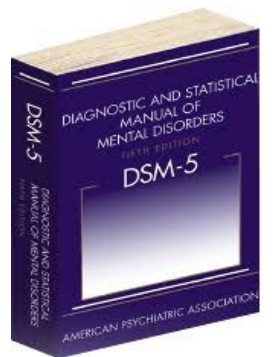
- Opioid Use Disorder
- Alcohol Use Disorder
- Cannabis Use Disorder
- Hallucinogen-Related Disorders (e.g. *mescaline, MDMA*)
- Inhalants Use Disorders
- Sedative-, Hypnotic-, or Anxiolytic-Related Disorders (e.g. *benzodiazepines*)
- Stimulant Use Disorders (e.g. *cocaine, amphetamines, methamphetamine*)
- Tobacco Use Disorder
- Caffeine Use Disorder



**A problematic pattern of use = significant impairment or distress
At least two of the following, occurring within a 12-month period**

1. Substance taken in larger amounts or over a longer period than was intended.
2. Persistent desire or unsuccessful efforts to cut down or control use.
3. A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects.
4. Craving, or a strong desire or urge to use.
5. Recurrent use resulting in failure to fulfill major role obligations at work, school, or home.
6. Continued use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.
7. Important social, occupational, or recreational activities are given up reduced because of use.
8. Recurrent use in situations in which it is physically hazardous.
9. Continued use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
10. Tolerance
11. Withdrawal

Mild (2-3 symptoms) → Moderate (4-5 symptoms) → Severe (6 or more)



www.addiction.surgeongeneral.gov



“Scientific breakthroughs have revolutionized the understanding of substance use disorders. For example, severe substance use disorders, commonly called *addictions*, were once viewed largely as a moral failing or character flaw, but are now understood to be chronic illnesses characterized by clinically significant impairments in health, social function, and voluntary control over substance use.” P. 2-1.

A person struggling with drug addiction typically **ingests multiple times daily** in a desperate effort to feel normal and stave off withdrawal.

Using an opioid when addicted is **required to feel stable and normal.**



If the defendant suffers from addiction and provides drugs to a fellow user...

The defendant's purchase of opioids for a fellow addicted person is not reckless in view of the science of addiction.



- i. **Severe substance use disorder** is a chronic illness in which changes in brain circuitry and physical tolerance to the drug, drive a person to **daily, compulsive use as if life depends upon it.**

- ii. The defendant and decedent both suffered from opioid addiction, and thus the defendant's **purchase of opioids** from his known supplier for the decedent was not "wanton or reckless," but rather **an act to manage the illness.**

PUBLIC HEALTH

These prosecutions...

1. Increase the risk of future fatalities.
2. Ensnare the lowest hanging fruit (addicted friends and family, *not* those who are selling).
3. Do not deter drug sales or drug use.

Drug-induced homicide charges interfere with Public Health Initiatives

1. Timely **administration of naloxone** to reverse overdoses.
2. Public education and harm reduction efforts to **reduce isolation** among those who use opioids.
3. The **911 Good Samaritan law** designed to incentivize help-seeking behavior among overdose witnesses.

MEDICAL CONSENSUS

Surgeon General: "[a]ddiction...[is] a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences."

American Medical Association: "addiction is a chronic disease and must be treated as such."

American Society of Addiction Medicine: "chronic disease of brain reward, motivation, memory and related circuitry....Like other chronic diseases, addiction often involves cycles of relapse and remission."

American Psychiatric Association: "Addiction is a complex condition, a brain disease that is manifested by compulsive substance use despite harmful consequences. . . . Changes in the brain's wiring are what cause people to have intense cravings for the drug and make it hard to stop using."

World Health Organization: "substance dependence is as much a disorder of the brain as any other neurological or psychiatric illness. . . . [T]he motivation to use psychoactive substances can be strongly activated by stimuli (environments, people, objects) associated with substance use, causing the desire or craving that can overwhelm people and cause relapse to substance use, even after long periods of abstinence."



Other Mental Disorders

Early Use



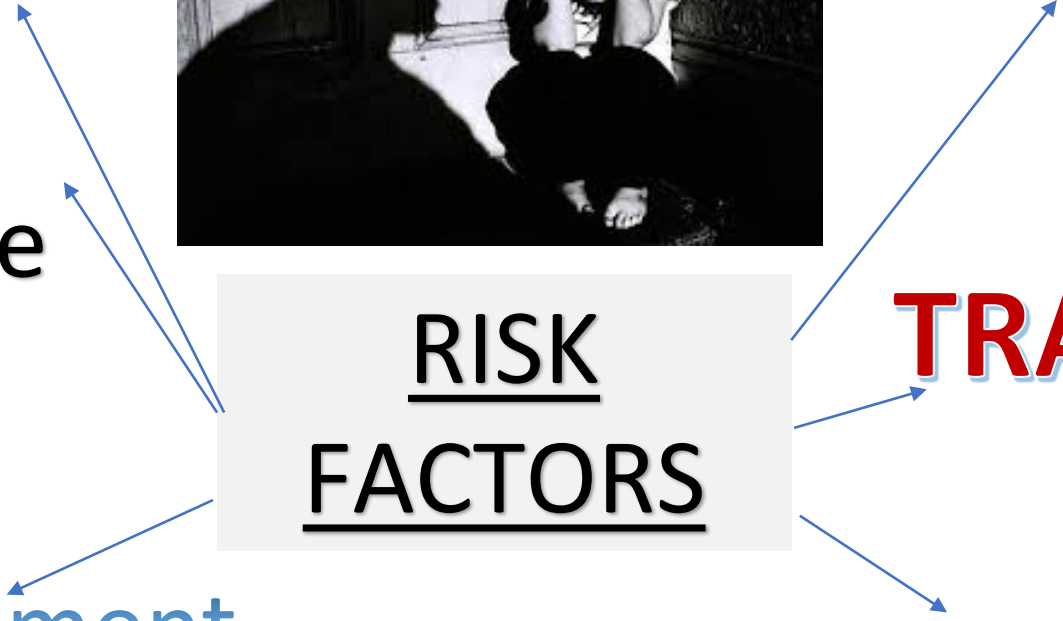
Genetics

RISK
FACTORS

TRAUMA

Environment

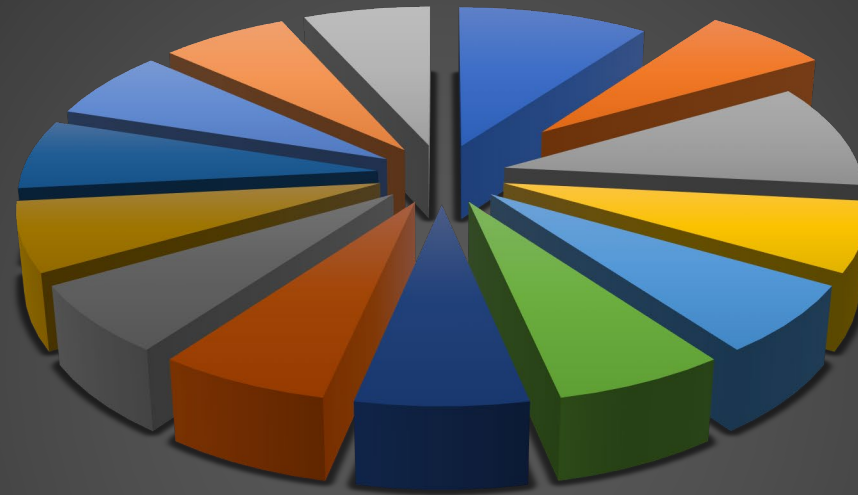
Social risk factors





Recovery is not one size fits all.

What It Takes To Get Better



- Stable & Sober Housing
- Having a Sense of Purpose
- Medicine
- Mental Health Treatment
- Positive Relationships
- Physical Movement
- Working
- Parenting
- Going to 12 Step Recovery
- Growing into an Adult Brain
- Getting Treatment for Trauma
- Hope
- Self Love
- Feeling Accountable

Graph by Ruth Potee, MD



Rebuild the Brain's Broken Dopamine System

- Positive relationships (e.g., restoring relationships, falling in love, or having a pet)
- Exercise or physical movement
- Mental health treatment
- Medications
- Constructive activities (e.g. working or going to school)
- Sense of purpose and investment in a community
- Accountability and Respect for one's self; and
- Growing into an adult brain.



Components of Comprehensive Addiction Treatment

- ***Individual counseling*** with a licensed clinician trained in addiction
- ***Evidence based-therapies:*** CBT, MET, DBT, EMDR, ACT
- ***Medications for Addiction Treatment*** (MAT)
- ***Case Management*** (homelessness, unemployment, co-occurring disorders)
- ***Mutual peer support*** (12-step, recovery coaches, SMART Recovery)
- ***Family therapy*** (CRAFT, Learn2Cope, Al-Anon)









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Commonwealth v. Eldred (2018)

Massachusetts Supreme Judicial Court

We argued...

It is unconstitutional to order a defendant who suffers from substance use disorder to be “drug free” while on probation and to impose criminal sanctions for drug use when continued use of a substance despite negative consequences is a symptom of the disorder.



“She Went to Jail for a Drug Relapse. Tough Love or Too Harsh?”

The New York Times, June 4, 2018

We need to rethink punishment for drug use/relapse.

- Relapse is a symptom.
- A court-order or requirement by social service agency to be “drug free” is effectively a court-order to be in remission or cured of one’s addiction.
- Because of what we now know about this extremely complex disorder, it is both legally correct and good policy to order treatment and monitor behavior (law-breaking, harm to children).
- While a court may legally mandate that a probationer or parent adhere to treatment, it cannot order a medical outcome.
- Our policies should foster and facilitate AUTHENTIC and HONEST treatment with providers.