Overview of Substance Use Disorder and Treatment with Medication Assisted Treatment (MAT)

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OBJECTIVES

- The numbers
- Review criteria for opioid use disorder
- The Disease Model
- What makes opioid use disorder different
- How do we approach treatment
- Overdose

EPIDEMIOLOGY

- 10% life time prevalence of a use disorder
- 1.5 to 2 million individuals with opioid use disorder
- The numbers do not seem to be decreasing

History of opioid use disorder in this country is very long
- post civil war and morphine
- morphinism 1870-1900s
- heroin use in the 60-70s
- prescription pain pills in the 80-90s
- expansion of heroin
- introduction of fentanyl

- IS ADDICTION A CHOICE (behavior) OR A DISEASE

According to the American Society of Addiction Medicine's definition:

*Addiction is a **primary, chronic and relapsing*** brain disease *characterized by an individual pathologically pursuing reward and/or relief by substance use and other **behaviors***

DISEASE MODEL OF ADDICTION

- It has a genetic component
  - rat models
  - adoption studies
- Neurochemical changes in those who use for prolonged periods of time (brain functioning scans)
- Many people who experiment with drugs do not find them reinforcing vs those who go on to develop an addiction

- MAKING THE DIAGNOSIS

How do You Diagnose Opioid Use Disorder (OUD)?

2 or more criteria = OUD:

- Using larger amounts/longer than intended
- Much time spent using
- Activities given up in order to use
- Physical/psychological problems associated with use
- Social/interpersonal problems related to use
- Neglected major role in order to use
- Hazardous use
- Repeated attempts to quit/control use
- Withdrawal *
- Tolerance *
- Craving

*Does not count if taken only as prescribed and constitutes the sole criteria

DSM 5, American Psychiatric Association

SIMPLIFED CRITERIA

- C- loss of control over use
- C- negative consequence to the use
- C- cravings or compulsion to use

Physical dependence
on opioids

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Opioid use disorder
(opioid addiction)

The Spectrum of Opioid Use Disorder

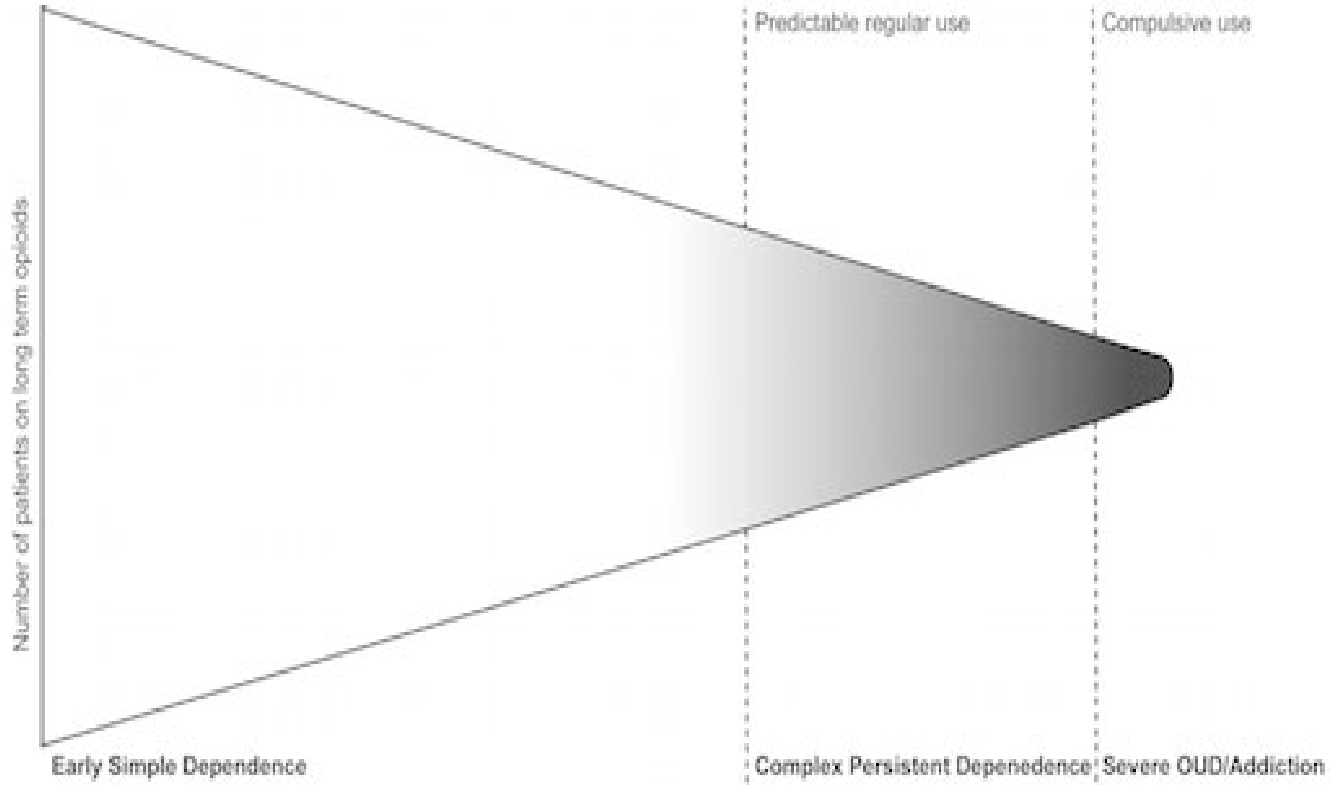

Fig. 2. A pictorial representation of the continuum of opioid dependence among LTOT patients.

Pain and Addiction, An Integrative Therapeutic Approach; Ajay Manhapra, William Becker, Med Clin N Am 102 (2018) 745-763

WHAT MAKES OPIOID USE DISORDER DIFFERENT FROM OTHER ADDICTIONS

There is a specific receptor (mu receptor) for opioids unlike most other drugs. They also act on the neurotransmitter dopamine

Within the human body there are natural opioids (endorphins) which are activated in pain, stress, illness

These receptors change when continuously exposed to exogenous opioids

WHAT MAKES OPIOID USE DISORDER DIFFERENT FROM OTHER ADDICTIONS

- The risk of addiction following exposure is higher (20%)
- Overtime the individual goes from using to experience the euphoria to using just to feel “normal” or avoid the withdrawal
- Initially there is some ability to “function” if the individual is not in withdrawal
- The withdrawal is such a severe process it is impossible for many patients to overcome when they know how to stop it

WHAT MAKES OPIOID USE DISORDER DIFFERENT FROM OTHER ADDICTIONS

- Even if able to get thru the withdrawal there is a persistent period of cravings triggered by stress, anger, cues
- Its expensive as it is unrelenting
- With the introduction of fentanyl opioid use disorder has become
  a fatal disease requiring emergent actions
- The highest risk of overdose is after a recovery

Opioid use disorder usually is not in isolation

- Significant percentage of patients suffering from opioid use disorder will have a co-occurring mental health condition

- Depression/anxiety
  - Bipolar
  - PTSD/trauma history
  - ADHD

Treatment

- Behavioral approaches
- Medications

BEHAVIORAL TREATMENT

- Address underlying thought processes that can trigger the use
  - 12 step models
  - Smart recovery/Rational recovery
  - Group therapies
  - Individual therapy
  - Contingency Management
  - Cognitive Behavioral therapies
- Peer support

THERAPY

Minimal

- prescription use
- stable in most domains
- high level of motivation
- Good recovery support system

Intense

- multi drug
- unstable
- Concurrent mental health issues
- Poor social support

Principles

- Don’t judge, treat the patients with respect
- Meet the person where they are at
- Internally motivate the person, let them do the talking
- Engagement is better than no engagement
- One of your strongest tools may be your therapeutic relationship
- Everyone on the team has a role
- Never give up

- TREATMENT OF OPIOID USE DISORDER SHOULD ALWAYS INCLUDE A DISCUSSION OF MEDICATIONS

MEDICATIONS USED IN MAT

- ALCOHOL USE DISORDER
  - Antabuse
  - Naltrexone

- OPIOID USE DISORDER (MOUD-medications for opioid use disorder)
  - Methadone
  - Buprenorphine
  - Naltrexone
- OVERDOSE TREATMENT
  - Naloxone

- TOBACCO USE DISORDER
- -Nicotine replacement
  -Wellbutrin
  -Varenicline

WHY IS MAT SO CRUCIAL IN THE TREATMENT OF OPOID USE DISORDER

- BECAUSE ABSTINENCE BASED TREATMENT IS MUCH LESS EFFECTIVE THEN MAT

Bentzley 2015 (Review on BUP Discontinuation)

Study (N)	Heroin	Duration (taper)	Avg Dose	Treatment Abstinent	F/u	Post taper Abstinence
Sigmon 2013 (70)	50%	2 wks (1 v. 2)	11.5mg	82%	9 wks	17% (21%)
Weiss 2011 (323)	26%	12 wks (4)	20.8g	54%	8 wks	10%
Ling 2009 (516)	83%	4 wks (1 v. 4)	20.3mg	37%	4 wks	18% (18%)
Woody 2008 (55)	76%	8 wks (4)	15.1mg	54%	24 wks	34%

So what is the success rate of MAT

- Between 50-60% 12 month abstinence with the use of MAT (medications assisted treatment)
- Between 10-15% with abstinence based treatment
- Major issue is retention, not failure of the medication

HOW LONG?

- The end goal is not getting off the MAT
- You can remain on it as long as you feel it is working and you need it (years to decades)
- Would not try to use it as a short term “detox agent”

OVERDOSE

- Approximately 100,000 people died from a drug overdose 2021
- Over 1 million have died from overdose since 1999
- Leading cause of death in those under 50
- Most current overdoses involve fentanyl
- Fentanyl being marketed as “pills” that look like oxycodone pills
- No significant decline since the “opioid epidemic” started
- Seeing fentanyl being added to methamphetamines and other drugs

OVERDOSE

- UNTREATED OPIOID USE DISORDER IS A FATAL DISEASE

EDUCATE CLIENTS ON OVERDOSE RISK

- **Empathy and concern, don't judge, build the relationship and trust**
- **Educate but personalize the experience also**
- **The patient may be so hopeless they don't care if they overdose**

- **Offer Naloxone RESCUE KIT at the first visit (it may be your only chance)**

QUESTION 1

- What are some of the major barriers patients face when seeking treatment and possible solutions you have seen

QUESTION 2

- What are some “stigmatizing” experiences for someone with a use disorder that can occur in the medical setting

QUESTION 3

- You have a patient or family member who vehemently denies using opioids despite evidence to the contrary. How do you approach this ?

QUESTION 4

- A patient is in treatment but continually tests positive for drug use. How should we approach this.