Opioid Use Disorder

A Quick Medical Overview & Some Stories

A Christian Perspective

"Behold I am making all things new."

--Revelation 21:5

How Opioids Work

- Natural and Synthetic Substances that work at one of the bodies opioid receptors (mu, kappa, delta)

- Naturally Occurring (in the opium poppy) (Morphine, Heroin)
- Semi-Synthetic (Oxycodone, Hydrocodone)
- Synthetic (e.g. Fentanyl, methadone)

- Have analgesic and CNS effects (as well as potential for euphoria)
- At lower doses, decreases pain without respiratory compromise
- With repetitive use, tolerance develops quickly

Terminology

- Tolerance—Need an increasing amount of a substance to achieve the same effect.
- Withdrawal-- When stop using, you feel bad, uncomfortable, irritable, agitated, sometimes overtly sick. Causes a desire/craving to use again to stop withdrawal symptoms
- Dependence = tolerance + withdrawal

- Addiction— A chronic, relapsing brain disease with compulsive "drug" seeking and use, despite harmful consequences

What is Happening in the Brain

- Problem in the *pleasure center* deep in the mid-brain. (Ventral tegmental area > nucleus accumbens > cortex)
- When we eat good food, or do something we enjoy, we get a feeling of pleasure, associated with a surge of dopamine.
- Same system activated by opiates. (Except *MUCH* more potently)

What is Happening in the Brain

- With repeated use, dopamine has been released so many times in response to the opiate, that when it is missing, there is a sense of craving to get that feeling again.
- Over time, the brain adjusts so that it takes more and more opioids to release the same amount of dopamine. (*Tolerance*)
- Now when opioid not present, dopamine levels are lower than ever, and dependent individual feels awful. (*Withdrawal*) Now the person has to use drugs not to feel high, but to feel normal!
- The brain is messed up!

What is Happening in the Person

- Isolation
  - Loss of relationships, community
  - The opposite of addiction is *connection* – Johann Hari
- Pain
  - Physical and emotional pain often triggers to initial exposure
  - Strong link between past experiences with trauma and susceptibility to addiction
  - Pain receptors/pathways re-wired

How Did We Get to Today's Opioid Crisis

- For centuries, people have used and mis-used various forms of morphine and opiates—not infrequently started medicinally
- Various "heroin"/"opiate" epidemics
- In 1980's and 1990's, big pendulum swing in medical community regarding presumed safety of narcotics for pain impacted the course of our current opiate crisis

Contributing Factors

- 1980– a brief letter published in New England Journal ("Addiction rare in patients treated with narcotics") lays foundation in medical literature for safety of prescription opiates
- 1995—Joint Commission approves "pain" as "5th Vital Sign"
- 1996—OxyContin approved (with aggressive marketing by Purdue Pharma on safety of long acting opiates for chronic pain)
- 1997 American Pain Society and American Academy of Pain Medicine Consensus Statement—
  - "Pain is often managed inadequately, despite available effective treatments"
  - "Accepted principles of practice for the use of opioids should be [promoted]"

Impact of Mis-guided Approach

- From 2000 to 2014, the amount of prescription opiates written in US quadrupled (and in same periods deaths associated with prescription opiates quadrupled—8,077 in 1999; 28,700 in 2014)
- In those 15 years, there were nearly a half million opiate related deaths in US
- New Heroin Users
  - As dangers of prescription opiate abuse became clearer, narcotic prescribing started to decrease quickly in response to guidance within medical community
  - Street value of prescription opiates rapidly soared above price of heroin and resulted in many addicted to prescription opiates to convert to heroin (due to heroin's lower cost)
  - Resulted in a surge of new heroin users and heroin associated overdose in the 2010's.

Use Concentrated in Locations where Most Available Supply of Heroin

Kensington—for decades, a hub of heroin supply

With surge in new populations of heroin users, Kensington became not only a hub of supply, but a new "home" for many looking for proximity to the supply, leading to settlements, squatting, and "open air" use

Experiences at Esperanza

- For years, Esperanza has worked with individuals struggling with addiction from a holistic model
- Location at Kensington and Allegheny kept us intimately engaged with the impact of the crisis on our patients and community
- In 2018, started to provide Medication Assisted Treatment (MAT) Program as a tool to facilitate patients toward recovery from opiate use disorder
- Our program provides Suboxone (buprenorphine-naloxone) as part of a weekly group visit that is facilitated by a substance abuse specialist (where recovery skills taught, emotional support provided, and spiritual care offered)

What is Suboxone (Buprenorphine /Naloxone)

- Buprenorphine is a "partial opiate agonist"
- Relieves withdrawal symptoms
- Has "Ceiling" effect (only "partial" agonist). No respiratory depression. No euphoria.
- Binds opioid receptors more tightly than heroin, so if try to use heroin while on suboxone , heroin "doesn't work."
- Combined with naloxone (an opiate blocker) –to prevent manipulation of med into other forms
- Suboxone use is associated with a decrease in overdose death.
- Evidence also shows that at 6 months, higher percent of patients started on suboxone maintain successfully in recovery, than in abstinence based treatment alone.

Stories

- Felicia
- Ramon