Opioid Use Disorder:
Impact on Families &
What Psychologists Need
 to Know

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Opioid Use Disorders:
What Psychologists Need to
Know – Don
Impact on Families - Martha
Disclosure

Martha and I have nothing to disclose.

Objectives

1. Participants will be able to identify the psychological effects that opioids have on individuals who consume them.
2. Participants will be able to identify why addiction to opioids is believed to be the hardest addiction to overcome without medications.
3. Participants will understand the effects of opioid use disorder on the family.
4. Participants will understand how to work with families and individuals who are affected by this common disease.

What are you seeing?
What do you want to learn?
It’s complex...

- Opioids
- Addiction
- Pain

Stigma
- How we interpret the actions of others based on our own frame of reference
- Prejudice
- My opinion: Stigma has the 2nd greatest impact on this issue than any other aspect. (Overprescribing is #1)

My patients
- Half became addicted to their opioids because of their doctor prescribing too many for too long.
- Of the other half, approximately:
  - 1/3 began using to treat pain
  - 1/3 began using to treat anxiety/depression
  - 1/3 began using to “get high”
Opioid facts

The United States has 4.6% of the world’s population.
1. We use 80% of the world’s opioids!1
2. 83% of the world’s population has no access to any opioids.2

Opioid increase

Drug distribution through the pharmaceutical supply chain was the equivalent of 96 mg of morphine per person in 1997.

and approximately 700 mg per person in 2007, an increase of >600%.3

The State of US Health5

Years lived with disability (in thousands)

- Low back pain
- Other MS disease
- Neck pain
- Osteoarthritis

- 1990
- 2010
Societal cost

$55.7 billion per year.  
$170 per person per year.

24 cents per mg (morphine equivalent)
- Bottle of Percocet 5 mg, #30:

Cost to society is $54


Pain

An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.

International Association for the Treatment of Pain
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Pain
Acute pain: Pain < 3 months
Chronic pain: Pain > 3 months

4 types of pain
- Nociceptive
- Neuropathic
- Central Sensitization
- Opioid withdrawal
Pain pathways

Nociceptor → Spinothalamic nerve → Thalamus

- Amygdala (fear)
- Hippocampus (memory)
- Somatosensory nerve (pain)
- Limbic system (emotion)
- Prefrontal cortex (rational thinking)

Central sensitization

Nociceptor → Spinothalamic nerve → Thalamus

- Amygdala (fear)
- Hippocampus (memory)
- Somatosensory nerve (pain)
- Limbic system (emotion)
- Prefrontal cortex (rational thinking)
A walk in the woods....

Acute vs. Chronic Pain

Poppy plant
Opioids are different...

Dopamine
+
Opioid receptors
Opioid receptors

- Enable us to achieve a goal (short term).\textsuperscript{23,24}
  - Decrease pain (minimal effect).
  - Increase motivation.
  - Increase confidence.
  - Reduce depression and anxiety.
  - Increase pleasure in current activity.
  - Increase “warmth-liking”.\textsuperscript{25}
    - Liking warm things.
    - Interpersonal bonding.

Our “success system”.

Primary purpose:

- **Dopamine** – Our primary reward system. This is what we live for.

- **Endorphins and opioid receptors** – These maximize our ability to achieve the reward. This is our “success system”!
Acute pain: treatment

Acetaminophen
NSAIDS

Opioids
Topical agents
Local injection (xylocaine, etc)
Nonpharmacologic (PT, ice, heat, etc.)

Opioids

Side Effects:
- Mentally impairing, 8,9
- Delay recovery, 10,11
- Increase medical costs, 12
- Opioid hyperalgesia, 13,14
- Double the chance of disability (if prescribed for 7 days or more), 15
- Increase falls, 16
- Cardiac, GI? 17,18
- Treat depression, 19 (They are very calming)
- Brain changes, 20
- Addiction, 21,22

Acute rx leads to long-term use 47

Duration of acute use:
1 day - 6% chance of still using that drug a year later.
8 days - 13.5%.
31 days - 29.5%.
Prescription Opioids in Adolescence and Future Opioid Misuse

Nabard Mehr, PhD, Jagi Johnette, PhD, Kevin M. Emsley, PhD, Katherine M. Keyes, PhD, Benson Koert, MD

Teens who received a prescription for opioid pain medication by Grade 12 were at 33 percent increased risk of misusing an opioid between ages 19 and 25.

Among those with low predicted risk of future opioid use in 12th grade, having an opioid prescription increased their risk of post-high-school opioid misuse threefold.

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Efficacy of pain medications

Acute pain\textsuperscript{26,27}

<table>
<thead>
<tr>
<th>Pain Medication</th>
<th>Percent with 50% pain relief</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ibuprofen 200 mg</td>
<td>27</td>
</tr>
<tr>
<td>Acetaminophen</td>
<td>26</td>
</tr>
<tr>
<td>Ibuprofen 400 mg</td>
<td>40</td>
</tr>
<tr>
<td>Oxycodone 15 mg</td>
<td>31</td>
</tr>
<tr>
<td>Oxy 10 + acet 1000</td>
<td>27</td>
</tr>
<tr>
<td>Ibu 200 + acet 500</td>
<td>82</td>
</tr>
</tbody>
</table>

Percent with 50% pain relief

Renal colic

A 2005 Cochrane review concluded:

NSAID medications and opioids have equal effectiveness in treatment of acute renal colic...

But opioids have more side effects.
Post-op pain

- Enhanced recovery after surgery (ERAS)
- Outcomes are better when NO intravenous opioids are used and oral opioids are minimized.\(^\text{46}\)

Chronic pain

- Completely different from acute pain!
- If the pain is severe or disabling, MOST is from central sensitization and/or opioid withdrawal!
- Pain medications will not work well on this type of pain.
Chronic opioid consumption:

- \(\downarrow\) dopamine production
- \(\downarrow\) opioid receptors
- \(\downarrow\) endorphin
- \(\downarrow\) normal reward
- \(\downarrow\) motivation
- \(\uparrow\) depression

Chronic pain

No evidence that opioids are effective for long-term treatment of chronic pain.\(^{30}\)

Epidemiologic studies have shown that those on chronic opioid therapy have worse quality of life than those with chronic pain who are not.\(^{31}\)

The AAN recommends against using opioids for back pain, headaches, or fibromyalgia.\(^{36}\)

A Cochrane review recommends against using opioids for OA of the hip or knee.\(^{37}\)
When treating chronic pain – know what you are treating!

- Nociceptive
- Neuropathic
- Central Sensitization
- Opioid withdrawal

Central sensitization Inventory

- Subclinical = 0 - 29
- Mild = 30 - 39
- Moderate = 40 - 49
- Severe = 50 - 59
- Extreme = 60 - 100.

Treatment of chronic pain

- Counseling
- PT
- Treatment of mood disorders
- Exercise
- Acupuncture
- Yoga
- Amitriptyline, duloxetine, gabapentin and similar drugs may help a little.
Opioid use and addiction

Opioid prescription and addiction

Treatment of Opioid Use Disorder

- Detox and abstinence
- Methadone
- Buprenorphine (Suboxone®)
- Naltrexone injection (Vivitrol®)
Treatment of Opioid Use Disorder

Detox and abstinence: Success rate ≈ 10%
Methadone: Success rate ≈ 60%
Buprenorphine (Suboxone®): Success rate ≈ 60%
Naltrexone injection (Vivitrol®): Success rate ≈ 10%

Detox and abstinence

• This is what the family wants!
• Commonly occurs in jail.
• Detox is HORRIBLE!
• Abstinence is also bad
  • Decreased endorphins and opioid receptors (depression)
  • Increased cortisol and norepinephrine (anxiety)
  • Drug craving can last months-years
  • Connection to the frontal cortex is damaged
  • 90% relapse in 6 months
  • Many relapses result in overdose or death.
    • In the first 28 days after discharge from residential tx, individuals are seven times more likely to die than those who are on MAT.

Medication Assisted Treatment (Medication Assisted Abstinence)

• Methadone and buprenorphine (Suboxone®)
• This is NOT substituting one addiction for another!
• Replaces what the brain needs
• Why methadone and buprenorphine?
  • No tolerance
  • Slow onset of action
  • Long half-life
Methadone

• This is the “gold standard”
• Has been used for over 50 years
• No upper dose limit
• Very dangerous medicine – must be used in a methadone clinic
• Provides the greatest chance of survival for those with OUD
• Most will remain on this the rest of their lives!

Buprenorphine (Suboxone®)

• Safer than methadone – may be done by “regular” doctors
• Not quite as strong as methadone
• A partial agonist: It has a ceiling effect. 24 mg is the maximal effect
• Treatment of choice for most with OUD
• Chance of survival similar to methadone
• Most will remain on this the rest of their lives.
  • Those forced to come off of buprenorphine are 3.5 times more likely to die than those remaining on it

Naltrexone injection (Vivitrol®)

• Completely blocks the opioid receptor
• Non-impairing and non-addicting
• Costs about $1500/shot (given once a month)
• The main drawback?
  • It completely blocks the opioid receptor
• Appropriate for those who:
  • Are highly motivated
  • Can completely change their social situation
  • Cannot risk any impairment
Naltrexone – real world

England study

Compared to those on MAT:
- Those in residential treatment were 50% more likely to die.
- In the first 28 days after discharge from residential tx are seven times more likely to die.
- Those getting counseling only were 100% more likely to die.
- Those in the first 28 days off of MAT: 3.5 times more likely to die.

Flip-Flop

Our thinking of chronic pain and addiction is backward:
- Chronic pain should be treated first with behavioral tx.
- OUD should be treated first with medication.
When are opioids indicated?

- Following severe trauma (for a short period)
- End of life

Naloxone (Narcan®)

- Reverses opioid overdose.
- HAS NO SIDE EFFECTS!
- Should be widely available in society.
- FAMILIES OF THOSE WITH OUD SHOULD ALL HAVE THESE!!

Main points

- Understand that physical/emotional pain, addiction and opioid use are all closely related
- Medications are the best treatment for opioid use disorder
- Addiction is a chronic brain disease
250,000

Number of deaths in the last 20 years from opioids. More than 4 times the number of American deaths in the Vietnam war. This is an epidemic. And medical professionals are the vector! This epidemic is completely reversible with a change of behavior that will result in better pain management.

“To write prescriptions is easy, but to come to an understanding with people is hard.”
-- Franz Kafka, “A Country Doctor”
Accurate diagnosis

DSM-5 and Opioid Use Disorder (OUD)

Keep in mind...

- This really isn't a behavior disorder, it's a brain disorder that impacts behavior.
Diagnosing OUD

- A problematic pattern of opioid use leading to clinically significant impairment or distress
- Must have at least 2 of 11 symptoms within the past 12 months

<table>
<thead>
<tr>
<th>11 symptoms</th>
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<tbody>
<tr>
<td>1. Taken in larger amounts or over a longer period than intended</td>
</tr>
<tr>
<td>2. Persistent desire or unsuccessful efforts to cut down or control use</td>
</tr>
<tr>
<td>3. Great deal of time is spent in activities necessary to obtain, use, or recover from opioid use</td>
</tr>
<tr>
<td>4. Craving or strong desire to use</td>
</tr>
<tr>
<td>5. Recurrent use results in failure to fulfill major role obligations at work, school, or home</td>
</tr>
<tr>
<td>6. Continued use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by use</td>
</tr>
</tbody>
</table>
Diagnosing OUD

7. Important social, occupational, or recreational activities are given up or reduced due to use
8. Recurrent use in situations which are physically hazardous
9. Continued use despite knowing there is a persistent or recurrent physical or psychological problem that is likely cause by or exacerbated by use

10. Tolerance
   - Needing more to get the desired effect
   OR
   - Markedly diminished effect with continued use of the same amount

11. Withdrawal
    - Opioid withdrawal syndrome
    - Use of opioids to relieve or avoid withdrawal
Diagnosing OUD

- Specifiers
  - Early remission (3-12 months)
  - Sustained remission (12+ months)
  - On maintenance therapy
  - In a controlled environment

Diagnosing OUD

- Severity specifiers
  - Mild = 2-3 symptoms
  - Moderate = 4-5 symptoms
  - Severe = 6 or more symptoms

Who’s at risk?
Risk factors for OUD

- Family history
- Adverse childhood experiences
- History of addiction (even smoking)
- Mental illness
- Current stress

Adverse Childhood Experiences (ACE) Study

- Assessed association between childhood trauma and later well being
- Collaboration between CDC and Kaiser
- 17,000 HMO members tracked
- Score of 0-10
- Early trauma changes the brain

ACE Study: Behavioral

- Behavioral
  - 2x rate of tobacco use (with 4+ score)
  - 12x risk of suicide attempts (with 4+ score)
  - 7x rate of alcoholism (with score 4+ score)
  - Hyperarousal, hyperactivity
  - Sleep disturbances

And...

ACE Study: Behavioral

- More behavioral consequences...
  - More PTSD, conduct disorder, ADHD, memory problems
  - Domestic violence (perpetrator and victim)
  - Substance abuse (with earlier onset)

ACE Study: Emotional

- Emotional
  - 80% will have at least one psych diagnosis by age 21
  - Greater lifetime number of psych diagnoses
  - Suicidal ideation, attempts, completion
  - Anxiety
  - Depression
Adverse Childhood Experiences vs. Smoking as an Adult

Childhood Experiences vs. Adult Alcoholism

ACE Score vs Injection Drug Use

Health Risks

Adverse Childhood Experiences vs. Smoking as an Adult

Childhood Experiences vs. Adult Alcoholism

ACE Score vs Injection Drug Use

Health Risks
Impact of OUD

Personal and family impact of OUD

- Decline in functioning
- Conflict between values and behavior
- Anxiety
  - How to maintain supply
  - Secret-keeping

assessing real impact

OPIOIDS
Personal impact of OUD

- Deception
- Job impact
- Shame
- Isolation

Family impact of OUD

- Anger
- Trust issues
- Enabling
- Helplessness
Family impact of OUD

- Fear
  - Suicide
  - Unintended overdose
  - Criminal/legal

Family history matters

- Family history and implications for risk/recovery
  - Substance use disorder is 2-8 times more likely in individuals with a first degree relative with SUD
  - Risk is a combination of
    - Genetics
    - Exposure and values (what is normal?)

Comorbid substance use

- Other substance use
  - Benzodiazepines
    - NEVER safe with opioids
  - Tobacco
  - Alcohol
  - Cannabis
  - Stimulants
Comorbid conditions
- Depression
- Insomnia
- Antisocial personality disorder
- PTSD
- Conduct disorder history

OUD and chronic pain
- Contributes to relapse risk
- Must treat both conditions
  - Get trained in behavioral treatment of chronic pain
  - Work with medical provider to reduce opioid use
  - Encourage medication-assisted abstinence
  - Involve family

Treatment options
What works best?
Intervention?

- Intervention pros and cons
- Few pros, mainly cons
  - Confrontational
  - Increases anger
  - Disempowering
  - Punitive

Treatment options

- Treatment options for families with a current user, from most effective to least effective
  - Methadone
  - Buprenorphine (Suboxone®)
  - Naltrexone injection (Vivitrol®)
  - Detox and abstinence

Evidence-based treatment

- Evidence support for 12-step programs
  - Lots of anecdotal evidence
  - Little research support
    - Anonymity of programs makes tracking difficult
    - They don’t support medication-assisted abstinence
Abstinence-only treatment?

- Concerns about abstinence-only treatment
  - High relapse rates
  - Cravings
  - Can't get through detox
  - Often those programs don't allow medication-assisted abstinence
  - Aim for progress, not perfection

Medication-assisted abstinence

- Encourage medication assisted abstinence
  - Truth vs. myth
    - Myth
      - Swapping one pill for another
      - Still “using” pills
    - Truth
      - MAA corrects brain changes

Stages of change and MI

- Motivational Interviewing (MI) helps people move through the Stages of Change (Prochaska)
  - Pre-contemplation
  - Contemplation
  - Action
  - Maintenance
  - Relapse
Motivational interviewing

- Person-centered, direct method to enhance motivation to change by resolving ambivalence
- Motivation to change is elicited from the client and reflects client’s values
- It’s the client’s task (not yours) to articulate and resolve ambivalence
- Direct persuasion isn’t an effective method to resolve ambivalence

Motivational interviewing

- MI style is generally quiet, not argumentative or confrontational
- Therapist is directive in helping the client resolve ambivalence
- Readiness to change is not a fixed trait, but a fluctuating product of interpersonal interaction
- Therapeutic relationship is more like a partnership or companionship than an expert/recipient role

OUD + trauma treatment

- Seeking Safety best for combined OUD + trauma treatment
What families can do to help

- Support any recovery effort
- If on MAA, don’t coerce them to come off
- Study and understand the disease
- Before recovery, offer to help but don’t enable
- Encourage harm reduction
- Talk
References:


