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Disclosures

- Dr. Tracy Frame and Joel Frame, authors of this educational activity, have no relevant financial relationship(s) with ineligible companies to disclose.
- None of the planners for this educational activity have relevant financial relationship(s) to disclose with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.

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Learning Objectives

1

Review medications used in opioid use disorder.

2

Identify the barriers to treatment for patients struggling with opioid use disorder.

3

Discuss how one could have a redemptive mindset towards those fighting an opioid use disorder.

4

Formulate a plan of action for how they might provide compassionate care to patients with opioid use disorder.

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3

What one question do you have today about opioid use disorder or its treatment?

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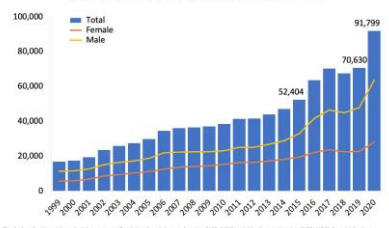
Quick Overview

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Facts

**Figure 1. National Drug-Involved Overdose Deaths\* Number Among All Ages, by Gender, 1999-2020**

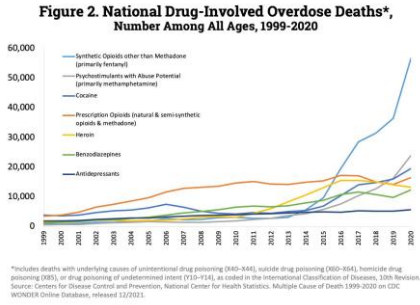


\*Includes deaths with underlying cause of unintentional drug poisoning (DAD-944), suicide drug poisoning (SD-944), homicide drug poisoning (HD-944), or drug poisoning of undetermined intent (DU-944), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death 1999-2020 on CDC WONDER Online Database, released 12/2021.

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Facts



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Medication-Assisted Treatment

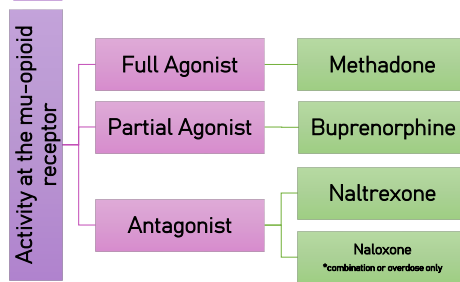
Also known as "MAT"

Use of medications, in combination with counseling and behavioral therapies, to provide a "whole-patient" approach to the treatment of substance use disorders

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What medications are used to treat opioid use disorder?

MAT in Opioid Use Disorder



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Methodone

- Schedule II controlled substance, oral dosage form
- Medically supervised withdrawal and maintenance
  - Controls cravings and blunts euphoria from illicit opioids
- Long-acting, usually 24-36 hours
  - Wide individual variability in half-life (8 to 59 hours)
  - Reaches steady state in about 5 days
- Individualized dosing → begin low dose and gradually increase with daily monitoring over days to weeks
- Therapeutic dose may be as high as 60-120 mg daily

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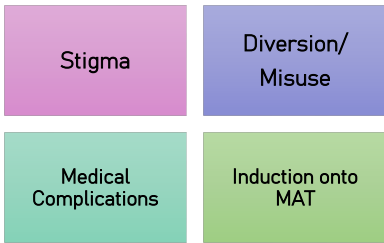
Methodone

- Common Adverse Effects
  - Sweating
  - Constipation
  - Respiratory depression- especially with alcohol or benzodiazepines
- Drug-Drug Interactions
  - With medications metabolized by CYP3A4, 2B6, 2C19
  - Other medications that can cause respiratory depression
- Cautions
  - Prolonged QT Interval
  - Hepatic impairment- key role in metabolism
  - Start low and go slow
  - Overdose can be fatal

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Barriers - Overall

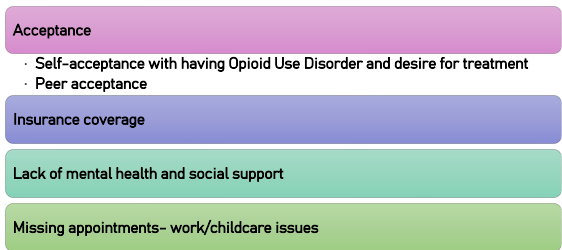


Barriers to Greater Use of Medication to Treat Opioid Use Disorder: National Academies of Sciences, Engineering, and Medicine. Health and Medicine Division. Board on Health Science Policy. Committee on Medication-Assisted Treatment for Opioid Use Disorder. Published March 2020. Accessed May 12, 2022. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7042431/>

Wang H, Zhang H, Wang W, et al. Addressing stigma and barriers to medication-assisted treatment for opioid use disorder. *Health Affairs (Millwood)*. 2019;38(10):e15811. doi:10.1136/hlthaff.2018.026111. Published December 2019. Accessed May 12, 2022. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6844444/>

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Patient Barriers

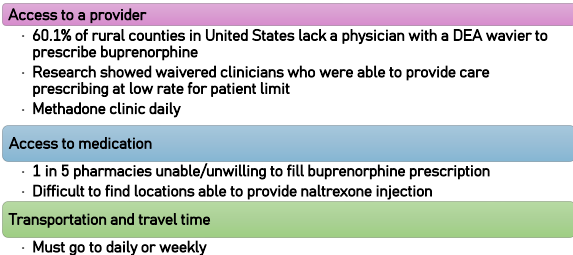


Barriers to Greater Use of Medication to Treat Opioid Use Disorder: National Academies of Sciences, Engineering, and Medicine. Health and Medicine Division. Board on Health Science Policy. Committee on Medication-Assisted Treatment for Opioid Use Disorder. Published March 2020. Accessed May 12, 2022. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7042431/>

Baron A, Shuman A, Dwyer T, Reynolds J, et al. Monthly Patient Volume of Buprenorphine Dispensed in the US. *JAMA Network Open*. 2020;3(4):e200363. doi:10.1001/jamaopen.2020.363. Published September 1, 2020. Accessed May 12, 2022. <https://pubmed.ncbi.nlm.nih.gov/33026506/>

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Patient Barriers



Barriers to Greater Use of Medication to Treat Opioid Use Disorder: National Academies of Sciences, Engineering, and Medicine. Health and Medicine Division. Board on Health Science Policy. Committee on Medication-Assisted Treatment for Opioid Use Disorder. Published March 2020. Accessed May 12, 2022. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7042431/>

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Pharmacist Barriers

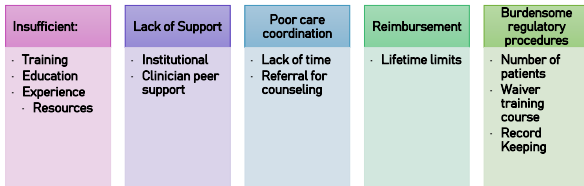


Baron A, Shuman A, Dwyer T, Reynolds J, et al. Monthly Patient Volume of Buprenorphine Dispensed in the US. *JAMA Network Open*. 2020;3(4):e200363. doi:10.1001/jamaopen.2020.363. Published September 1, 2020. Accessed May 12, 2022. <https://pubmed.ncbi.nlm.nih.gov/33026506/>

Chen H, Zhang H, Wang W, et al. Addressing stigma and barriers to medication-assisted treatment for opioid use disorder. *Health Affairs (Millwood)*. 2019;38(10):e15811. doi:10.1136/hlthaff.2018.026111. Published December 2019. Accessed May 12, 2022. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6844444/>

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Prescriber Barriers



Morris CA, Campbell SM, Nason DC, Seiderer LJ, Chan LB. Factors Influencing Buprenorphine Prescribing among Physicians in New York State. *Journal of Addiction Medicine*. 2019;21(2):172-177. Published December 19, 2020. Accessed May 12, 2022. <https://pubmed.ncbi.nlm.nih.gov/33026506/>

Wang H, Zhang H, Wang W, et al. Addressing stigma and barriers to medication-assisted treatment for opioid use disorder. *Health Affairs (Millwood)*. 2019;38(10):e15811. doi:10.1136/hlthaff.2018.026111. Published December 2019. Accessed May 12, 2022. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6844444/>

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What additional barriers have you come across when treating patients with OUD?

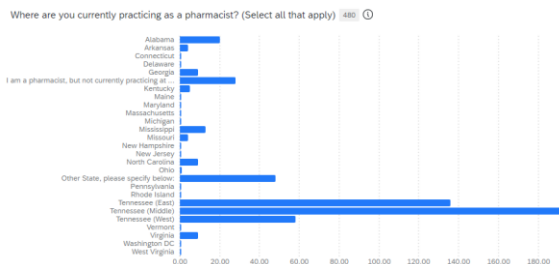
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Study Preliminary Results

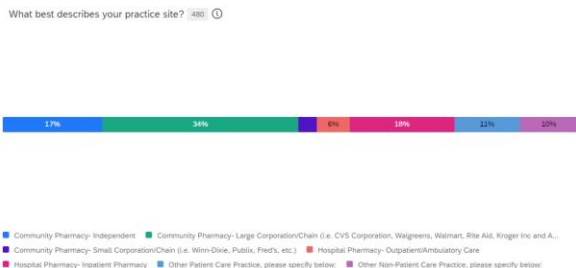
Frame TR, Clauson A, Hagan A. Surveyed in summer of 2019.

- 561 pharmacists consented to participate
- 480 finished survey completely
- 70% aged 18-44 years, 30% aged ≥45 years
- Objective of study: to gain a better understanding of pharmacists' perceptions and knowledge of dispensing buprenorphine/naloxone, naloxone and clean needles in practice.

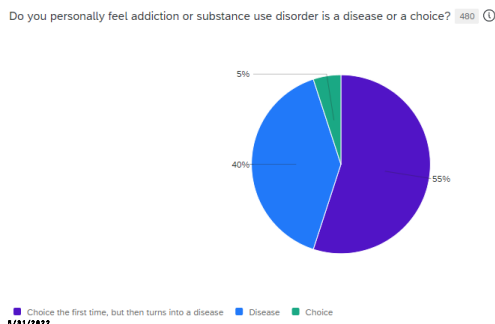
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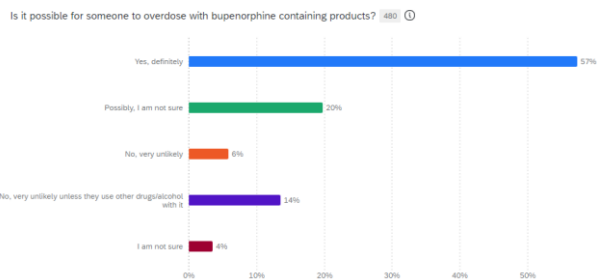


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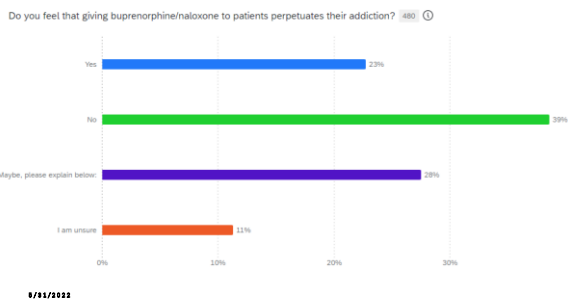
What is the mechanism of action for buprenorphine? 480

| Q39 - What is the mechanism of action for buprenorphine? | Count |
|--|-------|
| I am unsure  | 5%    |
| Opioid full agonist                                      | 6%    |
| Opioid antagonist  | 9%    |
| Opioid partial agonist                                   | 80%   |

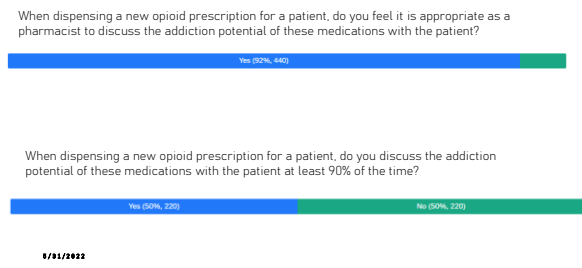
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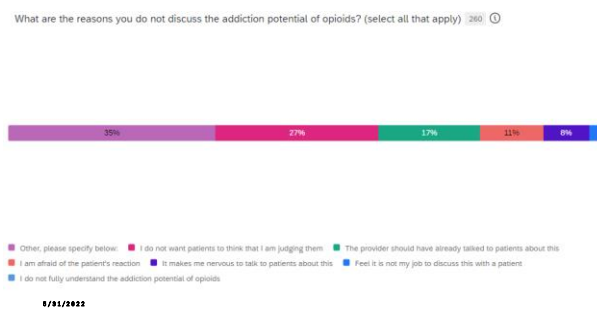
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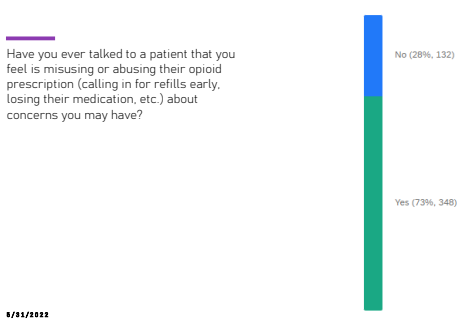
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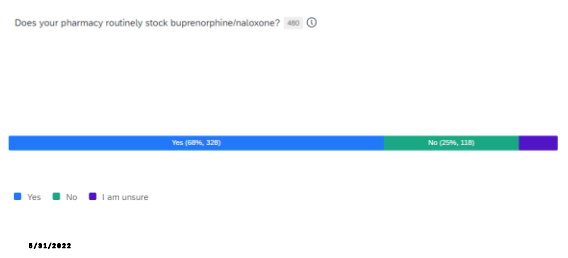


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Pharmacy Stocking and Dispensing Questions



36

How often does the pharmacy you work in (the majority of the time) dispense buprenorphine/naloxone? (480)

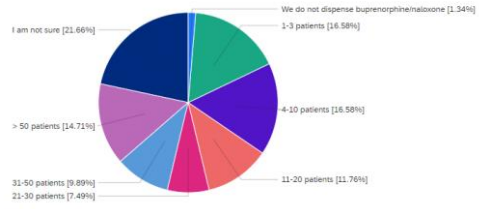


I am not sure | We do not dispense buprenorphine/naloxone | Less than once a month | Between once a month and every two weeks | Between every two weeks and weekly | Weekly | Between weekly and daily | Daily | More than once a day

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How many different patients receive buprenorphine/ naloxone in a month from the pharmacy you work at the majority of the time? (374)



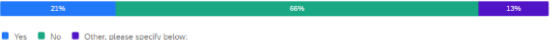
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Personally, have you ever refused to fill or denied a prescription for buprenorphine/naloxone? (480)



When you refuse a buprenorphine/naloxone containing prescription, do you routinely refer those patients to another pharmacy? (242)

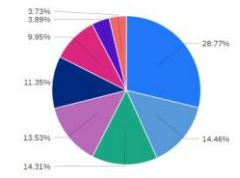


Yes | No | Other, please specify below:

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What were reasons as to why you refused to fill/denied the prescriptions? (Please select your top three reasons) (242)



It was too soon to fill | Don't fill from out of state | It was out of stock | Don't fill from specific providers | Other, please specify below | I didn't know the patient | Patient looked disreputable | Patient had a history of substance abuse

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What is/are your major concern(s) or issue(s) with providing buprenorphine/naloxone to patients? (Please select your top three concerns) (242)



Selling it on the streets | Feel that the patient is not being taken care of properly by the provider (patient not being tapered down by prov... | Perpetuating addiction | Risk of abuse | I know the prescribing provider is misusing their prescribing rights | Insurance problems | Risk of overdose | I have no concern or issue | Other, please specify below:

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Have you ever visited a provider's office that takes care of substance use patients (that dispenses medications used for opioid use disorder or other substance use) or offered to have he/she come visit your pharmacy to foster a collaborative relationship?



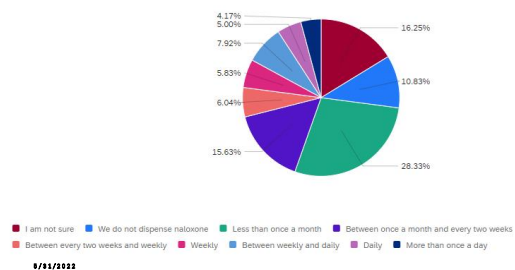
Have you ever visited a substance use rehabilitation facility or offered to have someone from their organization visit your pharmacy to foster a collaborative relationship?



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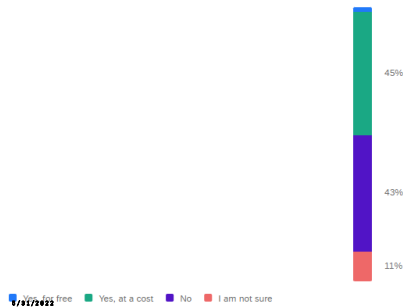
42

How often does the pharmacy you work in (the majority of the time) dispense naloxone? 480



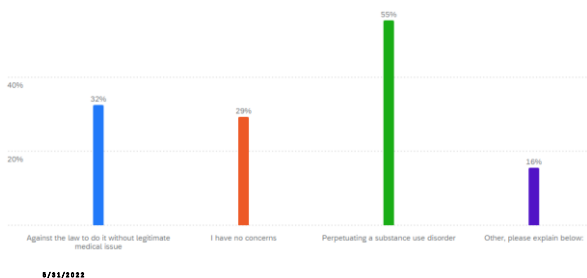
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Does your pharmacy allow selling of syringes and/or needles without a prescription? 480



44

Which of the following major concerns (if any) do you have about providing syringes and/or needles? (Please sel... 480



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480

In what ways have you potentially been a roadblock to patients with substance use disorder?

In what ways have you been an advocate for patients with substance use disorder?

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### Redemptive Mindset

- Choice vs Disease
- EDUCATION
- Counseling
- Collaboration
- Decreasing Fear
- Assess your own Bias
- Having a Gospel-Centric Approach

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### Choice vs Disease

The National Institute on Drug Abuse (NIDA), the Substance Abuse and Mental Health Services Administration (SAMHSA), and the National Institutes of Health (NIH) describe addiction as:

Caused by a combination of behavioral, psychological, environmental and biological factors

Genetic risk factors: estimate 23-54% hereditary for opioid use disorder based on twin and family studies

#### Brain disorder

Brain imaging studies of people with addiction show physical changes in areas of the brain that are critical to judgment, decision-making, learning and memory, and behavior control

The changes are long-term and can continue long after the person has stopped using drugs

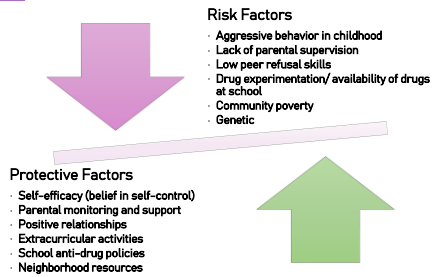
"A long-term and relapsing condition characterized by the individual compulsively seeking and using drugs despite adverse consequences"

Thomas C. Shiels et al. "Substance Use Factors and Models." American Addiction Centers. Updated January 2022. Accessed April 20, 2022. <https://www.americanaddictioncenters.org/what-qualifies-addiction-a-disease>

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Risk and Protective Factors for Drug Use, Misuse, and Addiction



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Choice vs Disease

- Initial decision typically voluntary
- If viewed as a choice:
  - Self-acquired, the person gave to themself
  - Increased guilt, shame on patient
- If viewed as a disease:
  - Take burden off patient by understanding the change in brain
  - Realize stopping cold turkey typically never works
  - Treatable illness like diabetes, hypertension
  - Some people look at patients as if they are holding onto an excuse

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Education

- Pertinent to have knowledge on:
  - Mechanism of action
  - How medications work in treatment
  - Side effects
  - Potential for overdose
  - Possibility of misuse

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Potential for overdose

**Buprenorphine** Possibility when using other CNS depressants, especially benzodiazepines

- Increased risk of respiratory and cardiovascular collapse
- Signs and symptoms of overdose
- Confusion, dizziness, pinpoint pupils, hallucinations, hypotension, respiratory depression, seizures, coma
- Requires naloxone bolus of 2-3 mg followed by continuous infusion of 4 mg/hour
- See full reversal within 40-60 minutes

**Naltrexone** Possibility when trying to overcome blockade, at the end of a dosing interval, after missing a dose, after discontinuation

**All** Meta-analysis of 30 cohort studies

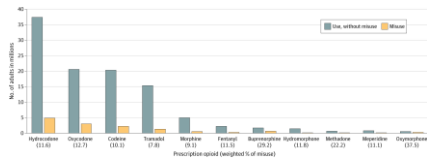
- Patients who discontinued medication (buprenorphine, methadone, or long-acting implant naltrexone)
- Higher risk of all-cause death (relative risk 2.33 [95% CI 2.02-2.67]) and overdose death (3.09 [95% CI 2.37-4.01]) than patients receiving medication

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Possibility of misuse

- Recent study in JAMA 2021: Trends in and Characteristics of Buprenorphine Misuse among Adults in the US
- Used nationally representative data on past-year Rx opioid use, misuse, OUD and motivations
- From 2015-2019 National Survey on Drug Use and Health
- 214,506 respondents

Figure 1. US Adults Who Reported Using or Misusing Prescription Opioids in the Past 12 Months (2019 Survey, 42739 respondents)



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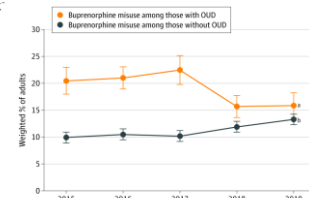
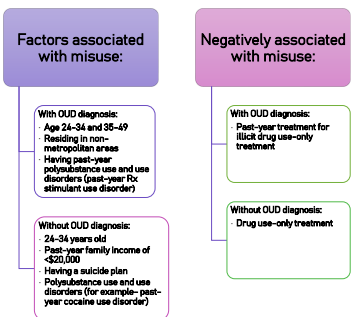


Figure Legend:  
Trends in Prevalence of Past-Year Buprenorphine Misuse by Opioid Use Disorder (OUD) Status Among US Adults With Past-Year Buprenorphine Use  
Data are from 2036 respondents in the 2018-2019 National Surveys on Drug Use and Health. Error bars indicate SEs.  
\*Linear trend P = .04.  
†Linear trend P = .08.

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Misuse Factors



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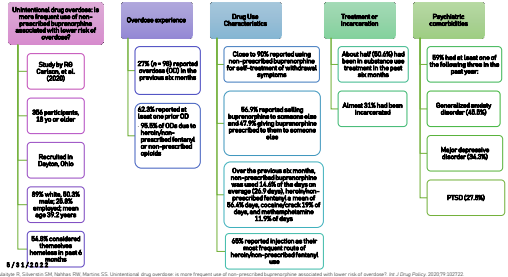
Table 1. Differences in Main Motivation Between the Most Recent Buprenorphine Misuse and Nonbuprenorphine Prescription Opioid Misuse by Past-Year Buprenorphine Misuse and OUD Status

| Main motivation for misuse                 | OUD status, weighted % (95% CI) <sup>a</sup>    |                                 |  |                                 |
|--|---|---------------------------------|--|---------------------------------|
|  | OUD   |                                 | No OUD   |                                 |
|  | Nonbuprenorphine prescription misuse (n = 1362) | Buprenorphine misuse (n = 233)  | Nonbuprenorphine prescription misuse (n = 789) | Buprenorphine misuse (n = 213)  |
| Reduce physical pain                       | 52.3 (45.4-56.8) <sup>b</sup>                   | 30.5 (14.0-29.0) <sup>b,c</sup> | 66.4 (60.0-68.2) <sup>b</sup>                  | 79.1 (71.2-79.1) <sup>b,c</sup> |
| Ritax or relieve tension                   | 8.9 (7.0-11.1)                                  | 3.7 (1.6-3.3) <sup>b,c</sup>    | 10.5 (9.4-11.7)                                | 6.8 (3.2-14.0)                  |
| Experiment                                 | 1.4 (0.7-2.7)                                   | 1.6 (0.5-4.4)                   | 2.4 (2.1-2.8)                                  | 8.5 (4.9-14.3) <sup>b,c</sup>   |
| Feel good or get high                      | 17.1 (14.4-20.2) <sup>b</sup>                   | 9.4 (5.9-14.6) <sup>b</sup>     | 10.3 (9.4-11.3) <sup>b</sup>                   | 18.1 (11.5-27.4) <sup>b</sup>   |
| Help with my feelings or emotions          | 6.3 (4.8-8.2) <sup>b</sup>                      | 8.2 (3.4-18.6) <sup>b,c</sup>   | 2.4 (2.1-3.2) <sup>b</sup>                     | 11.7 (5.8-22.2) <sup>b,c</sup>  |
| Increase/decrease effect(s) of other drugs | 1.2 (0.3-4.4) <sup>a</sup>                      | 15.1 (8.5-23.1) <sup>b,c</sup>  | 0.5 (0.3-0.8)                                  | 3.6 (2.2-5.9) <sup>b</sup>      |
| Because I am hooked                        | 7.8 (6.2-9.9) <sup>b</sup>                      | 27.3 (21.6-33.8) <sup>b,c</sup> | 0.2 (0.1-0.3) <sup>b</sup>                     | 12.7 (7.3-21.2) <sup>b</sup>    |

Abbreviation: OUD, opioid use disorder.  
<sup>a</sup> Data are from 9726 respondents in the 2015-2019 National Surveys on Drug Use and Health.  
<sup>b</sup> This estimate is statistically significant (P < .05) different from the estimate of the corresponding adults with nonbuprenorphine prescription opioid misuse but no OUD (within each row).  
<sup>c</sup> This estimate is statistically significant (P < .05) different from the estimate of the corresponding adults with nonbuprenorphine opioid misuse and with OUD (within each row).  
<sup>d</sup> Interpret with caution owing to low statistical precision.

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Buprenorphine Diversion- Limited Harm?



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Buprenorphine Diversion- Limited Harm?

**Results:**

Higher mean percentage of days of non-prescribed buprenorphine use in past six months significantly associated with:

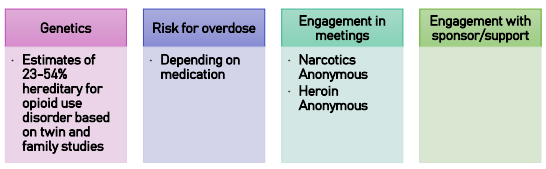
- Decreased risk of overdose (OD) in past 6 months in both unadjusted and adjusted analyses (AOR = 0.81, 95% CI = 0.66, 0.98; p = .0286)

Secondary analyses showed

- Individuals who used non-prescribed buprenorphine for more than 5.4% of days (10) had 53% lower odds of OD
- Taking buprenorphine for 2-3 days out of 6 months reduced odds of OD by 20% compared to just 1 day
- Linear trend showed more buprenorphine use resulted in greater reduction in odds of OD
- Greater frequency of use of non prescribed buprenorphine is strongly associated with lower frequency of use of heroin/fentanyl
- Lower frequency of use of heroin/fentanyl is strongly associated with lower risk of overdose

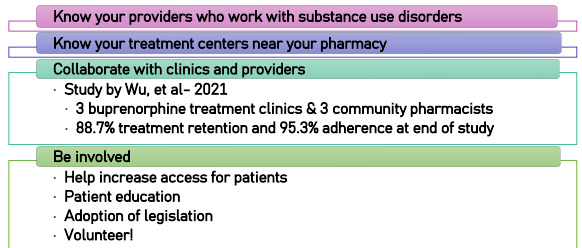
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Patient Counseling



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Collaboration



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Decreasing Fear

|                                     |                                 |  |
|-------------------------------------|---------------------------------|--|
| Empathy, compassion and respect     | Using non-stigmatizing language | Non-verbal communication skills                        |
| Verbal communication skills         | Asking the hard questions       | Realizing it's okay if someone gets upset; little risk |
| You could be the only one who cares | Develop a store policy          | Giving clean needles does not perpetuate addiction     |

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Assess your own bias

- Know yourself and your own history with addiction or member of addiction community
- Educate yourself on addiction
- Be aware of your role as a professional and how you carry yourself → don't abuse that power
- Stay alert to what informs your opinions (media, friends, family...)
- Have humility

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Having a Gospel-centric approach

|  |   |   |
|--|---|---|
| Realize trauma may be part of their story                              | Identify what you are responsible for         | Accepting them as they are                              |
| Connection between trauma and addiction- Adverse Childhood Experiences | Can not shield them from natural consequences | We all are made in the image of God                     |
| Compassion   | Professional intervention                     | We all have an invitation from Jesus                    |
| Inform your way of communication                                       | Setting boundaries                            | Restorative power in Jesus's healing, even if they fail |

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Having a Gospel-centric approach



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In what other ways might you have more of a redemptive mindset towards patients with opioid use disorder?

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Let's pause and reflect and plan together!

Think about the answer you provided to the roadblocks you have potentially caused for your patients, what steps can you take to increase your knowledge and empathy towards patients struggling with opioid use disorder?

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