



2020

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Recommended Citation

Myklebust, Casey, "MAT Effectiveness for Oxycodone vs Heroin in Opioid Use Disorders" (2020). *Physician Assistant Scholarly Project Posters*. 212.

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MAT Effectiveness for Oxycodone vs Heroin in Opioid Use Disorders

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Abstract

- Opioid use disorder is a major epidemic in the United States.
- Rural areas suffer the most with limited resources available for treatments options.
- A limited number of providers participate in MAT programs due to a negative stigma.
- Project Echo was developed to spread awareness and information about MAT to educate providers and healthcare facilities about the needs of opioid use disorder patients that are not being met.
- Buprenorphine, naltrexone, and methadone are the FDA approved medications to assist in MAT.
- Medication assisted treatment is a long-term commitment to successfully maintain sobriety.
- Medication alone is not a reliable means of achieving nor maintaining sobriety.
- Cognitive behavioral therapy has proven to be a key factor in battling opioid use disorder (OUD).

Introduction

- Opioid-use disorder is a major concern in the United States leading to an increased number of overdose deaths per year from both prescription and illegal opioids.
- Roughly half of opioid use deaths are attributable to prescription medications like oxycodone with other half from illegal drugs such as heroin. Over prescribing of opiates for pain management is one of the major contributors to opioid deaths. The ease of availability of illegal drugs like heroin has also added to the problem.
- Medication Assisted Treatment (MAT) was developed for this problem and the same medications can be used to both prescription and illegal opioid addiction.
- The purpose of this study is to compare the effectiveness of MAT programs at treating opioid-use disorders in both oxycodone and heroin users and determine if there is a difference in sustained sobriety and compliance.

Statement of the Problem

- Many providers believe that the use of medications like buprenorphine and naltrexone are merely substituting one opiate for another. MAT medications are opiates, but they are only partial agonists of the mu receptors compared with oxycodone and heroin which are complete agonists.
- The partial agonists activate the receptors without the euphoria from the complete agonists, and also satisfy cravings and withdrawal symptoms. MAT has been proven to be effective.
- Providers need to be informed on which patients are going to respond better to treatment with medications and which patients need alternate forms of treatment.

Research Questions

- In opioid addicted patients, is MAT a more effective therapy to achieve sobriety and compliance for patients addicted to prescription opioids, such as oxycodone, or more effective for those addicted to a street opioid, like heroin?



Literature Review

- Buprenorphine is the preferred medication for opioid maintenance therapy during pregnancy (Gala, 2019).
- No statistically significant difference was seen among other neonatal outcomes, such as APGAR scores and gestational age at delivery by BUP dose and UDS status (Gala, 2019).
- Project ECHO was developed from this and is a model with the power to rapidly transfer knowledge and exponentially increase capacity to deliver best-practice care to underserved populations. The ECHO model has four core principles: (1) use technology to leverage scarce resources; (2) share best practices to reduce disparities; (3) employ case-based learning to master complexity; (4) monitor outcomes to ensure benefit (Kawasaki, 2019).
- The two treatment groups were compared and showed that after 5 years, opioid use at follow-ups was higher among participants randomized to buprenorphine relative to methadone (Oesterle, 2019).
- Any form of exercise is a feasible adjunctive therapy to use along with OUD treatment and has shown to increase mood (Colledge 2017).
- High school students who used nonprescribed opioids at least once are at higher risk of lower academic performance, being bullied, taking part in high risk sexual behaviors and are more likely to have feelings of depression, anxiety, and hopelessness (Clayton, 2019).

Discussion

- Medication assisted treatment has been proven to be safe and effective.
- MAT has been proven effective during pregnancy without any major birth defects other than neonatal abstinence syndrome but can be limited with decreasing dose.
- Most patients suffering from OUD also battle mental health issues, mainly anxiety and depression.
- Finding the correct dose of medication early in the initiation of MAT treatment is key to preventing cravings and withdrawal symptoms.
- Buprenorphine is the preferred medication for opioid use disorder by patients and providers.
- There does not appear to be a statistical difference in the effectiveness of MAT when comparing oxycodone and heroin.
- MAT is more effective and patients maintain sobriety longer when cognitive behavioral therapy is added to their recovery.

Applicability to Clinical Practice

- MAT is a great way to help reduce the opioid crisis and will help in making better choices and more conscientious about prescribing opioids to patients who need them and what to watch out for.
- MAT is also another tool to build your patient numbers and help the healthcare facility bring in more patients and money.
- If more providers participated in MAT programs, at their healthcare facilities, the patients would have another option for their required care.
- Seeing these types of patients will make it easier to identify the patients that come in requesting painkillers, if they are seeking opioids or if they really are in pain and need help.
- Asking astute questions and assessing patients with a thorough history and physical is key to identifying these patients and also being able to identify if they have any mental health behaviors that are contributing to their situation.
- The research and information included, will make each provider a better provider and add to their abilities to treat these patients appropriately and provide the quality medical treatment including mental health specialist referrals when required.

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Thanks...

- To the faculty and staff of the UNDP program for their guidance and input during this process.
- To my primary care preceptor, Grant Lannoye, for the first hand experience in clinic with this topic.
- To my supportive girlfriend, Megan.

