INCREASING ENGAGEMENT IN MEDICATION-ASSISTED PROGRAMS FOR OPIOID ADDICTION

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Every day more than 115 Americans die from overdosing on opioids.

The CDC estimates that the total economic burden of prescription opioid misuse alone in the U.S. is $78.5 billion a year.

This includes the costs of healthcare, lost productivity, addiction treatment and the criminal justice system.

Connecticut, which is ranked seventh by the U.S. News and World Report as “Best States for Public Health” is also among the top ten states with the highest rates of opioid-related overdose deaths.
SETTING FOR THIS QUALITY IMPROVEMENT INITIATIVE

- Federally Qualified Health Center (FQHC) located in central Connecticut
- Three of the towns it serves are in the top ten cities and towns with the highest number of resident deaths by opioid drug overdoses in CT
- Demographic breakdown:
  - Female 39.57%: Male 60.38%: Undifferentiated 0.05%
  - White 55.67%, African-American 12.26%, Declined to specify 15.14%, Other race 11.78%, Multi-racial 2.55%, Asian 0.96%, Hawaiian 0.63%
- Clinic provides community-based adult and family services, including pediatrics and school-based services, medical and behavioral health prevention, wellness and recovery services.
- This project focused on adult outpatient recovery from substance abuse which included medication-assisted treatment for opioid and alcohol use disorders.
People

Opioid dependent patients

MD/APRN

Methods

Verify appropriateness for buprenorphine treatment

If approved buprenorphine will be ordered

Materials

Buprenorphine

Clinical Opiate Withdrawal Scale

Policy

Document any previous treatment history with MAT

Processes

Patient presents for evaluation by LCSW

Patient is evaluated by APRN for appropriateness of MAT

Environment

FQHC Fieldwork Site

Health and Wellness Center

Lack of Adherence to MAT

Buprenorphine Treatment
Process Flow Chart

Patient presents for evaluation of opioid dependency by LCSW

Patient is not appropriate for MAT

Patient is evaluated by LCSW

Patient is appropriate for MAT

Patient is evaluated by APRN

DSM-V diagnosis is confirmed

Determine which clinic has availability for MAT

Prescription is written for Suboxone

Patient is non-adherent with treatment
Aim Statement and Outcome Measures

The smart Aim of this quality initiative is to utilize an evidence-based method that increases the number of individuals with an opioid use disorder who adhere to BMT by 10% over a 12 week period of time.
Literature Review

- CINAHL: included the following terms: “(opioid OR opiate) AND (suboxone OR buprenorphine) AND (retention).
- CINAHL and PubMed: included the following terms: “(opioid OR opiate) AND (suboxone OR buprenorphine) AND (adherence).
- Third search used the terms: “(opioid OR opiate) AND (suboxone OR buprenorphine) AND (medication compliance OR medication adherence OR patient compliance.”
- A filter of five years was used.
- The search of the literature resulted in 93 studies, which was further narrowed by relevance and scientific rigor to include a total of 28 studies that were included for this review.
**Treatment**

- **Buprenorphine** (buprenorphine-naloxone), a partial mu-opioid receptor agonist, is the most commonly prescribed medication for OUD treatment and is effective in managing withdrawal symptoms and reducing the potential for relapse.

- Compared with other FDA-approved medications such as methadone and naltrexone, buprenorphine has relatively high patient retention and sustained recovery as well as low liability and minimum overdose risk.

- Buprenorphine is the only medication-assisted treatment of OUD that can be prescribed outside traditional stand-alone opioid treatment programs.
Adherence

- In a setting similar to the one for this project, an FQHC geographically located near the project setting, endorsed the clinical effectiveness of integrating buprenorphine maintenance treatment into FQHCs.
- The retention rates to BMT at this site were approximately 34% higher than that of the project site.
- Linking hospitalized patients before discharge to BMT, there is a significant rise in utilization of addiction treatment.
Patient Count by Length in BMT Program

- < 3 months: 22%
- 3-5 months: 31%
- 6-8 months: 15%
- 9-11 months: 12%
- 12+ months: 20%
Patient Count by Length in Program: Alternate FQHC Site

- 1 month: 41%
- 3 months: 33%
- 6 months: 26%
Obstacles Preventing Adherence

- Societal Factors: Perceived incompatibility between life obligations and the requirements of BMT.
- Conflict with staff.
- Stigma
- Demographics:
  - Ethnic minorities are less engaged in BMT.
  - Youth under age 21. Young age and use of opioids during the first few months of treatment predicted early dropout in BMT.
- Psychiatric co-morbidities: MDD, GAD, Bipolar Disorder, Childhood Trauma including physical, sexual and emotional abuse.
Strategies to Improve Adherence

- Behavioral modalities: CBT
- Texting: Over 90% of Americans own mobile phones and 79% use text messaging.
- TM has demonstrated improved outcomes in appointment and medication adherence.
- TM has the advantage of instant transmission and low cost.
- TM is also perceived as being less invasive than phone calls.
- TM reminders have a positive effect on non-attendance rates.
- The mobile phone is considered to be the next frontier in health behavior change.
Implementation of this Quality Initiative

Potential Barriers to Change

- Inconsistent use of TM to reliably communicate care. The clinical practice of using TM was in place at this fieldwork site, however, it was not uniform and widespread.

- Lack of consistency among support staff to have clients select TM as an option for appointment reminders. Practice was to give clients a reminder card.

- Client confidentiality.

- This population changes telephone numbers frequently and non-operational secondary to non-payment.
Improvement Implementation

- Establish a mechanism to de-identify patient demographic information. IT team involved.
- Providing information on the alarming number of opioid-related overdose deaths in the community.
- Training curriculum was created, using existing information technology.
- Standard TM was created by the QI team that was generic.
- Clarification of language. Buprenorphine was confusing to some team members, as this facility only use Suboxone.
- The education program was sent via email on October 22, 2018. On October 30, 2018, the compliance monitoring began for the whole clinic.
Kotter’s Eight-Stage process was utilized.

Establishing a sense of urgency by the sharing of data that the town in which the clinic was located had one of the highest rates of opioid-related deaths in CT. It ranked fourth in the state for opioid-related deaths.

Creating the guiding coalition. The COO was on board.

Developing a vision and strategy. Working with IT using existing software.

Communicating the change vision. Review of literature that supported the use of TM.

Empowering broad-based change. Involving clinical staff.

Generating short term wins. This did not occur until after week two, as one BMT engaged client died unexpectedly from a medical complication.

Consolidating gains and producing more change. Involvement of senior personnel and increasing the viability of the project.

Anchoring new approaches in the culture. An interest was kept to maintain the change in culture of using TM.
Improvement Model

- Plan-Do-Study-Act (PDSA) cycle was utilized.

- Plan: engaging the team by encouraging ideas and perspectives. Secure management support, COO was on board and an email was sent out by the COO to all stakeholders as to the importance of this QI. Clarification was given to the implementation team that BMT rates were low when compared to a nearby FQHC.

- Do: implementing the plan. Effective communication to keep the QI on track. Weekly data over a twelve-week period was tracked and communicated to the team. Regular audits were conducted.

- Study: Verification that de-identified aggregate data was being used to evaluate the success or failure of the change.

- Action (Adjust): Re-start the cycle at the planning phase if the QI did not achieve the results. This was not necessary as this QI exceeded expectations in adherence rates to BMT from a projected 10% increase to an actual 19% increase after the first three months.
Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12
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# MAT Patients Enrolled | 26 | 26 | 25 | 23 | 26 | 30 | 33 | 35 | 38 | 41 | 45 | 49
# Patients Using Text Messaging | 4 | 4 | 8 | 12 | 20 | 26 | 30 | 33 | 35 | 39 | 43 | 47
Percentage Adherence Rate to MAT | 56.1 | 56.1 | 60.8 | 62.1 | 65.7 | 68.6 | 69.9 | 71.1 | 72.5 | 72.9 | 74.8 | 75.1
Cost-Benefit Analysis

Percentage of BMT Clients Enrolled in Treatment

- Monthly Revenue
- Yearly Revenue

66% 75%
SUCCESS!