Screening for Opioid Use Disorder in Emergency Department Observation Unit Patients

Kendra M. Cull (Lehman)

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Screening for Opioid Use Disorder in Emergency Department Observation Unit Patients

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Nursing 898A Capstone V/Spring 2023

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Abstract

Background: Opioid use disorder (OUD) is an issue that impacts the healthcare system daily, and has been declared a national public health concern. The purpose of this DNP Quality Improvement (QI) project was to screen patients aged 16 and older for Opioid Use Disorder (OUD) who presented to the Emergency Department Observation Unit (ED OBS) in a Urban Academic Medical Center regardless of chief complaint. The goal of this project was early identification of OUD and rapid referral to outpatient resources to facilitate recovery compliance.

Methods: The QI project utilized a registered nurse led screening intervention for every patient admitted to the ED OBS regardless of admission diagnosis or declaration of opioid use history. The screening process consisted of a two-minute verbal questionnaire which assessed the patient for opioid use disorder risk. If the patient screened positive, they were offered Medication Assisted Treatment (MAT), followed by a rapid follow up appointment in the hospital outpatient clinic within 48 hours upon discharge from the hospital.

Results: Out of 650 patients admitted to the ED OBS unit in the month of October 2022, 536 participated in the Quality Improvement Project. No patients screened positive for OUD requiring MAT or referral to Outpatient Recovery Care at discharge. Fourteen women were actively prescribed opiates for a chronic pain condition compared to 4 men prior to arrival to the Observation Unit. Five women were unable to answer the Rapid Opioid Dependence Screen (RODS) questions due to altered mental status/dementia issues compared to 2 men who were unable to answer due to the same reason.

Conclusion: Results suggest several theoretical and practical implications for future research into treatment of OUD in the Emergency Department Setting.

Keywords: Opioid abuse, Substance dependence; screening; suboxone; emergency department; substance abuse.
Screening for Opioid Use Disorder in Emergency Department Observation Unit

Patients

Introduction

Opioid Use Disorder (OUD) is an increasing national healthcare concern (Jennings et al., 2020). Many patients who present to an Emergency Department (ED) with OUD go undetected due to lack of screening by healthcare providers (Nurse Practitioners, Physician Assistants, Registered Nurses and Physicians). This often leads to patients leaving the ED without completing medical treatment due to withdrawal symptoms, and results in multiple return visits to the ED (Jennings et al., 2020). Proper OUD screening and identification can lead to medication assisted therapy (MAT) used to help patients stop abusing opiates and aid them in beginning the recovery process as soon as possible. Patients who enrolled in ED initiated programs have benefitted from access to care and are able to address their OUD immediately (Jennings et al., 2020). Research supports these patients comply with recovery longer and tend to complete medical treatment in the ED for their initial complaint (Jennings et al., 2020).

Background

Patients with OUD who present to the ED for medical treatment of any kind are not routinely offered a treatment option for that disorder unless they self report (John et al., 2019). Many OUD patients wish to seek treatment but do not know how to attempt this process due to lack of social support, shame, planning, time, or resources (John et al., 2019). Seizing the opportunity to screen every patient who presents to ED regardless of chief complaint will help identify those who do not initially self identify.
The risk of patients, aged 16 and older, who present to an Emergency Department with Opioid Use Disorder (OUD), is increased by a lack of screening from healthcare providers, and is indicated by patients leaving without completing medical treatment due to withdrawal symptoms and results in multiple return visits to the ED. One solution to this problem is routine screening and treatment.

**Review of the Literature**

A review of the literature was completed and performed by using the PRISMA method (Garrard, 2021). The database used to find research articles was PubMed on the University of Massachusetts Library website. The parameters used included studies only occurring in the United States of America, during the years of 2016-2021, involving patients ages 18-65. The key terms used in the initial data search were opioid abuse, substance dependence, screening, suboxone, screening, measurement tool, and emergency department. Before paring down the studies by patient age, location of study, and year study was published, the initial search returned 573 sources. After adding in the above parameters, the results reduced to 282.

Narrowing this search down even further to studies which used screening tools reduced the list of eligible studies to 15. The articles reviewed were either retrospective cohort studies or prospective observational cohort studies. There was only one randomized trial by Bogan et al. (2020), where 329 opioid dependent patients were tracked for compliance after suboxone induction in ED setting. Out of the 231 patients who were started on suboxone, 76.6% of those arrived for the next day appointments
scheduled for treatment; 59% of those patients remained in treatment for 30 days (Brogan et al.).

The population studied in the review of the literature were men and women ages 18-65 who presented to an Emergency Department in the United States for any reason and who screened positive for OUD. Upon reviewing the matrix created for the literature review, there were some commonalities among the studies. A generalized screening tool that could be administered at the time of arrival and initiated in an electronic medical record (EMR) would be helpful in making sure that all patients who may benefit from a MAT program in the ED are captured (Bogan et al., 2020).

The stigma of OUD continues to be a barrier for medical providers. Continuing education for providers is found to be beneficial and mentioned as an area of further research in future studies. For example, a study by Edwards et al. (2019), occurred in a teaching hospital where residents had suboxone treatment as part of their didactics. They were encouraged to use what they learned in practice and were eager to use the OUD treatment pathway which entailed offering suboxone induction treatment in the ED with an outpatient follow-up plan to patients who came in requesting to be enrolled in the program. If a screening tool was in place perhaps the program could capture more patients, who did not initially self-identify as having OUD.

Of the 15 studies reviewed, six of them used a survey asking patients to self-report OUD while in the ED (Brogan et al., 2020; Busch et al., 2017; Coupet et al., 2021; Edwards et al., 2019; Kaucher et al., 2019; Regan et al., 2020). All of the studies looked at both men and women between the ages of 18-65 who presented to the ED in the United
States. There was one experimental study that used a randomized trial to look at three different pathways for OUD treatment in the ED (Bogan et al., 2020). Another study by Regan et al. (2020), specifically looked at possible racial bias when treating OUD in the ED since white men were predominately treated despite the goal of examining any predictors of ED based OUD treatment and predicted follow up.

A study by Busch et al. (2021), showed that suboxone induction in the Emergency Department was more cost effective and reflected more patient engagement. Patients were more involved in outpatient continued treatment than those who just received a referral from the ED to outpatient care or community-based programs alone. Three studies showed that just by screening all patients in the ED as they present for any symptom, OUD can be identified and treated as well (Bogan et al., 2020; Coupet et al., 2021; Hawk et al., 2018).

Edwards et al. (2019) used just a media campaign to advertise the service of OUD treatment in the ED. Five studies showed that initiating suboxone treatment in the ED were associated with increased engagement in outpatient addiction care (Bogan et al., 2020; Busch et al., 2017; Edwards et al., 2019; Kaucher et al., 2019; Regan et al., 2021). A study by Coupet et al. (2021), showed that most patients with untreated OUD were not actively seeking treatment on arrival to ED. Therefore, a screening tool is imperative for patients who may not self-report.

Throughout this literature review many articles mentioned providers comfort levels when it comes to prescribing suboxone and counseling this patient population in general. John et al. (2020), found that females were more likely to report past year OUD
use during an ED visit if asked. Females tended to be older in age, have lower income, have major depressive disorders, and had received their opioids through prescriptions through treating providers (John et al., 2020).

Another barrier found in OUD treatment in the ED setting is a perception that providers are too busy in an emergency setting to effectively manage this population (Regan et al., 2021). Properly screening these patients is perceived as a challenging task when working in a high-volume environment. Adding MAT, which can include beginning suboxone therapy, can be perceived as only increasing a patient’s length of stay, since patients need to be monitored after starting the treatment for a period of time as they are required to be in a near withdrawal state to begin treatment (Kelly et al., 2019). At the time of this quality improvement project implementation, clinicians were required to obtain an X-Waiver prior to prescribing suboxone therapy. Samuels et al. (2019) highlights the rigor of X-Waiver licensure training and how that can be a deterrent for medical providers to get certified to partake in prescribing opportunities. X-Waiver training consisted of 32 hours of extensive online and in person training that allowed prescribing providers to partake in induction services. Upon completing the required training modules, prescribers were required to apply at their state level to get an X-Waiver license in order to be recognized as a certified prescriber (Samuels et al., 2019). This process was time consuming and expensive if not paid for by the institution in which they worked.

Finding an appropriate screening tool that is quick yet effective to use on all patients who present to the ED is ideal in helping identify patients who may benefit from
being offered MAT services. Devries et al. (2018), used the Opioid Risk Tool (ORT), which is a brief verbal screening tool to assess risk in each patient who presents to the ED for any complaint. Another study looked at the skill of motivational interviewing to help a patient see that an acute medical condition can be related to substance use disorder (Hawk et al., 2018). For example, an infected arm requires antibiotics, but asking the correct questions and having the proper dialogue may help patients realize that injecting heroin with an unsanitary needle caused this medical condition. This opportunity may be one in which the patient would be open to considering treatment.

**Synthesis of the Key Concepts of the Literature**

When synthesizing the literature, there were three central themes that arose. The first is around access to care for patients. The second is education and stigma bias of providers, and last, continued engagement of patients in OUD treatment programs once enrolled in a rapid induction program in the Emergency Department. All studies underline the need not only identifying OUD, but the need for strong outpatient follow up and community program support for patients once they leave the ED. Close outpatient follow-up and strong community relationships are crucial to successful patient recoveries, especially in resource limited areas (Walter et al., 2021).

Areas that need to be investigated further are standardized screening tools for OUD in all patients. There does not seem to be one specific screening tool that is universally used. In addition, continued medical provider education around OUD is an area that needs additional support. Providers need to learn not only how to treat OUD, but how to address the stigma/bias associated with substance abuse to increase the comfort.
level for prescribing MAT in the ED setting. A study by Chenworth et al., (2019), looked at a twitter forum to allow prescribers to communicate amongst themselves using clinical narratives and barriers they are experiencing on the front lines in treatment scenarios. This platform was also used as a place for medical education and updates regarding OUD treatment. The findings showed that the participants acceptance and success of suboxone treatment can be increased with the help of modern use of a social media outlet.

Jennings et al., (2020), conducted a study in which the results support added education for suboxone providers. Medical students and interns were given pre- and post tests after an educational workshop about OUD treatment. Forty five percent (45%) of participants scored higher in the post test. By continuing to educate providers and by making OUD a common place issue that every patient is screened for, the bias and stigma will reduce and the comfort level for treatment will be on the rise.

Opioid use disorder is a continued problem in America today. Medical providers should take any opportunity presented to them to try and address this epidemic one patient at a time. Use of a validated screening tool that assesses patients who may be at risk, allows providers to offer these patients an opportunity to partake in a rapid induction suboxone program with next day follow up for continued recovery services (Bogan et al., 2020). Review of the literature shows that patients who enrolled in these programs were still involved in the recovery process at the 30-day mark (Bogan et al., 2020). This is an opportunity that would otherwise be missed. By increasing not only access to care for patients, but the provider comfort level when managing this population of patients
through continued education, healthcare workers can make a difference when fighting this epidemic.

**Theoretical Framework or Evidence Based Practice Model Change Theory**

Kurt Lewin, a social psychologist of the early 20th century, is known as a pioneer in the study of group dynamics and organizational development. Lewin’s view is that it is imperative to identify the strength of driving and restraining forces in order to comprehend why individuals, groups and organizations act as they do. Once those forces are identified, the next step is to figure out what forces would need to be diminished or strengthened to bring about change. This foundation of Lewin’s 3-stage model is commonly referred to in the phases of unfreezing, moving (or transitioning), and refreezing (Lewin, 1951).

*Unfreezing*, the first stage, involves getting ready for change. This stage entails a change agent such as a nurse leader recognizing a problem, identifying the need for change, and mobilizing others to see the need for change. Unfreezing may begin with nurse leaders conducting a gap analysis illustrating discrepancies between the desired and current state. Creating a sense of urgency for change is part of unfreezing. A solution is then selected, and preparation for moving away from a current reality or equilibrium ensues. *Moving, transitioning or change*, the second stage of Lewin’s theory, entails looking at change as a process rather than an event. Transitioning is the inner movement that individuals make in reaction to change and requires unfreezing or moving to a new way of being. This stage necessitates creating a detailed plan of action and engaging people to try out the proposed change. Often, this stage is difficult because it has
uncertainty and fear associated with change. The transition stage involves coaching to overcome fears and clear communication to avoid losing sight of the desired target, which is a new and improved reality (Lewin, 1951).

Refreezing, the third stage of the theory, demands stabilizing the change so that it becomes embedded into existing systems such as culture, policies, and practices. In refreezing the change, nurse leaders often aide in facilitating change and counteract the restraining forces getting in the way of change. With refreezing the new change, this dynamic produces a new equilibrium, which is then recognized as the new norm or higher level of performance expectation. This third stage is important because locking in or institutionalizing change will be crucial to its sustainability over time (Lewin, 1951).

Lewin’s change theory can be applied to this QI project (see Appendix A). Unfreezing is when there is contemplation for change. This occurs because the facility must recognize a need for a desire to change its culture and improve upon a current practice that is not best serving the patient population. The next stage, the Change stage, allows the hospital to try out the new idea, in this case, screening patients for OUD in the ED. It is a time of fear of change and uncertainty, but also can be one of growth and rapid improvement. This is the time for all involved to ask questions and ensure that the process is working as smoothly as possible for all involved. The final stage, the refreezing stage, is when the change has taken hold. There is a new norm and a desire for a higher expectation. The process of screening for OUD becomes second nature for the nursing staff on the Observation Unit.
Goals, Objectives and Expected Outcomes

The purpose of this quality improvement project was to implement a nurse led screening and triage process for OUD within the Observation Unit of an Urban Emergency Department setting. By successfully screening these patients, immediate treatment was offered for a Medication Assisted Therapy (MAT) program. Once identified by the RN, the patient was evaluated by the Observation Unit Advance Practice Provider (APP), who was able to prescribe MAT immediately if the patient qualified. Upon discharge, these patients were referred to, and followed closely by, the Massachusetts General Hospital (MGH) Bridge Clinic to continue the recovery process. The Observation Unit was an ideal site as an access point of care for this population of patients because patients often present to the Emergency Department when they are able to fit it into their life, between work, family and other commitments. These patients often do not have the support system to go and seek out help for themselves in a proactive way. The overreaching goal of this quality improvement project was to implement an evidence based screening tool for OUD with patients who presented to the Emergency Department Observation Unit. By educating the ED OBS RN staff on the RODS for patients, the likelihood of identifying patients with OUD increases.

The objectives for this DNP project were to:

1. Educate ED OBS Staff nurses on OUD and the importance of screening and detection.

2. Screen all EDOU patients for OUD regardless of presenting diagnosis, age, or gender because OUD may not otherwise not be detected.
3. Positively screened patients were offered MAT immediately and then were evaluated by the Addictions Team who assessed the patient and set them up for rapid outpatient follow up at hospital discharge to prevent relapse.

Methods

This quality improvement project consisted of an educational and practice intervention for the registered nursing staff. During a staff meeting in the month of September 2022, the DNP student explained the purpose and goal of the quality improvement project, using a power point presentation (See appendix B) as well as the screening tool to be utilized (See Appendix C). Prior to this project, OUD screening was not conducted on the ED Observation Unit. During the month of October 2022, the RN staff was trained to screen every patient who was admitted to the Observation Unit for OUD regardless of chief complaint using the RODS tool.

Once a patient screened positive for OUD, the RN alerted the Observation Unit advanced practice provider (APP) assigned to the patient who was X waiver licensed. Next, the patient was assessed by the APP and offered a brief intervention which included MAT while in the emergency department. In addition, the patient was discharged home with enough medication to last until their immediate follow up appointment with an outpatient treatment provider. If a patient declined treatment, then they were discharged with Narcan.
Project Site and Population

This quality improvement project sought to address the opioid epidemic plaguing the American healthcare system today. Registered Nurses in the ED are on the front lines dealing with patients from all walks of life and continue to play a key role in identifying high risk patients. This project was performed in the Emergency Department Observation Unit of Massachusetts General Hospital (MGH). MGH is a 1000 bed Level One Trauma Center located in Boston, Massachusetts. The Administrative and Clinical Leadership from the Unit were contacted directly via email and in person and have agreed to the implementation of the project (see letter of support, Appendix D). With the assistance of the Clinical Nurse Specialist on the Unit, the DNP student contacted the entire RN staff of the Observation Unit via email and in person and made them aware of the project and what their role entails. There are 43 staff RNs on this 31-bed unit. In addition to the nursing staff, the clinical providers consist of three Advanced Practice Providers (APP) per twelve hour shift who are overseen by two ED attending physicians. The APP and Attending group were also notified of the project by emailed power point presentation. This is not a change in practice for them, because once a patient is identified with OUD, all providers are able to initiate MAT. The RNs performed the proactive screening in this project which is the change in practice.

Patients are admitted to the Emergency Department Observation Unit from the Emergency Department. Patients come to this unit to complete their work up which may take longer than a routine ER visit, but does not require a hospital admission. The average length of stay in the Observation Unit is 24-48 hours. There are on average 25
patients admitted to the unit daily. Staffing levels are set at an average of four patients to one nurse. For the period of one month’s time (October 2022), each patient who arrived to the Observation Unit from the Emergency Department was asked the RODS Questionnaire by the RN as part of their admission intake assessment. This tool allowed RNs to screen each patient for opioid abuse despite the reason for admission to the hospital. If the patient screened positive by the questionnaire, they were immediately evaluated by the unit APP during admission to the Observation Unit and were offered an opportunity to partake in Medication Assisted Therapy which began immediately while in the Observation Unit. All APP providers in the ED Observation Unit are X-waiver licensed providers and were able to immediately prescribe such medications. The patients would then see a member of the Addictions Team as an initial consult and be set up with an outpatient appointment within 24-48 hours by the Observation Unit APP Staff for follow up in the MGH Bridge Clinic upon discharge.

**Measurement Instruments**

To effectively treat and manage a patient’s dependence on opioids, it is imperative that a reliable and valid diagnostic tool be used to identify the affected population (Wickman et al., 2015). The Rapid Opioid Dependence Screen (RODS) is an 8-item measure of opioid dependence designed for quick target screening in a clinical setting. Based on the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV) criteria, the RODS tool has an average administration time of less than two minutes and can easily be administered as a stand alone instrument, or as part of a comprehensive interview (Wickerman et al., 2015).
The RODS is set up for ease of use in a yes/no format. The first item assesses lifetime use of the following eight types of opioids: heroin, methadone, buprenorphine, morphine, MS Contin, Oxycontin, oxycodone, and other opioid analgesics. Next, items 2 to 8 measure physiological, behavioral, and cognitive factors associated with opioid use. A “no” response to all eight drug types in Item 1 results in an immediate outcome of nondependence, skipping Items 2 through 8. Participants with an affirmative response to at least one drug type in Item 1; however, proceed to answer Items 2 through 8. A diagnosis of opioid dependence is made if three or more affirmative responses are given to Items 2 through 8, reflecting the diagnostic criteria outlined in DSM-IV (Wickerman et al., 2015).

The initial validation of the RODS tool was tested among a sample of 97 newly incarcerated, HIV-positive individuals conducted by Wickerman et al. (2015). The tool showed good-to-strong sensitivity (.97) and specificity (.76). Items 2 through 8 showed strong internal consistency (α = .92). Item-total correlations (ϕ) were also good, ranging from .66 to .87. Item 1 was excluded from this analysis since it is an indicator of opioid use rather than dependence (Wickerman et al., 2015).

**Data Collection**

The implementation of the project began in September of 2022. First, data on how many patients from the ED Observation Unit had a known OUD diagnosis and/or received a referral to the MGH Bridge Clinic for rapid outpatient follow up at discharge from the Observation Unit over the past month (September 2022) was collected by the DNP student. The number was zero. The DNP student met with the RN Observation Unit
staff at a monthly staff meeting in September of 2022. At this meeting, the screening was reviewed in depth and all questions the RN staff had were answered. Nurses were asked to screen each and every patient as they are admitted to the Observation Unit regardless of diagnosis from October 1-October 31, 2022. If a patient screened positive, the nurse notified an APP who then evaluated the patient and offered MAT. In addition, patients who screened positive were to be set up for rapid outpatient follow up in the MGH Bridge Clinic upon discharge within 48 hours by the discharging APP.

**Procedures**

Every patient who was admitted to the ED Observation Unit between October 1, 2022 and October 31, 2022 was asked the RODS Assessment Tool by the RN Staff on their initial intake assessment regardless of medical diagnosis. Patients were coded by the RNs when completing the assessment form by using their medical record number/gender/age. All other patient identifiers were removed.

Additional data collection by the DNP student included a retroactive chart analysis (over the preceding month September 2022) to assess for the number of MGH Bridge Clinic referrals that were completed from the ED Observation Unit, as well as whether or not patients were referred for MAT and rapid outpatient follow up. There were no patients that fell into either of these categories in September of 2022 in the ED Observation Unit.

**Timeline**

Appendix E outlines a detailed timeline for this Quality Improvement Project. In summary, information about the project was introduced to the Observation Unit Staff in
September of 2022. The data collection, which entails the RN staff screening each patient admitted to the ED Observation Unit with the RODS survey tool, occurred during the month of October 2022. Data from pre and post intervention were obtained for analysis and summarized in the months of January and February of 2023. The final project write up occurred in March 2023 with results relayed to the Observation Unit staff in April 2023.

Descriptive statistics explained the quality improvement project’s results. All patient information was kept confidential and depersonalized. Demographic data was obtained at the beginning of the survey by the DNP student. Data points included: Age and Gender. The DNP student tracked the number of screenings completed, with the ideal of capturing 100% of the patients who were admitted to the unit during the month of October 2022. Additional data collection included a retroactive chart analysis (over the preceding month September 2022) to assess for the number of MGH Bridge Clinic referrals that were completed from the ED Observation Unit as well as whether or not patients were referred for MAT and rapid outpatient follow up.

**Ethical Considerations/Protection of Human Subjects**

The University of Massachusetts, Amherst (UMass) Internal Review Board (IRB) approval was obtained prior to starting this DNP Project. All participants were protected by the Health Insurance Portability and Accountability Act of 1996 (HIPAA) which, among other guarantees, protects the privacy of patients’ health information (Modifications to the HIPAA Privacy, Security, Enforcement, and Breach Notification...
Rules, 2013. All information collected as part of evaluating the impact of this project was aggregated data from the project participants and did not include any patient identifiers.

The risk to patients participating in this project was no different from the risks of patients receiving standard emergency department care. Participant confidentiality was assured by coding the participants using individual identification numbers. The list of participants and their identifying numbers was kept in locked filing cabinets in the administrative office, only accessible to the DNP student. All electronic files containing identifiable information were password protected to prevent access by unauthorized users and only the DNP student had access to the passwords. IRB approval was not required at Massachusetts General Hospital since this was a Quality Improvement Project.

**Cost-Benefit Analysis/Budget**

A detailed cost-benefit analysis for this quality improvement project is presented in Appendix F. The majority of the cost was due to clinical staff who worked on this project. Other considerations were supplies and data analysis tools. The estimated total cost of this project is $665.00, which was also the actual cost of this project. The benefits of this project were two fold. It not only increased awareness of OUD in the ED OBS staff, but served as a building block for the next phase of this quality improvement project. Learning how the questions of the survey are asked are just as important as what is asked was a crucial to ensuring more positive screens. By continuing to keep the ultimate goal of increased access to recovery programs there will be an eventual reduction in ED visits for OUD related concerns such as overdoses and return ED visits for patients who cannot complete medical treatment due to withdrawal symptoms.
Results

In the month leading up to the initiation of this project, the DNP student met with 32 of the 43 staff nurses during the monthly unit staff meeting. The meeting was recorded over zoom and the presentation explained the importance of OUD screening and detection. It was aided by a power point presentation outlining the RODS measurement tool and how to use it at the bedside. Any nurse who did not attend the informational meeting was emailed the presentation and asked if they had any additional questions. There were no additional follow up questions.

In the month prior to beginning this project, September 2022, there were 664 patients admitted to the ED Observation Unit, and no patients were treated and/or referred to the MGH Bridge Clinic for OUD. During the implementation month, October 2022, 650 patients were admitted to the ED Observation Unit, and still no patients were treated for OUD or referred to the MGH Bridge Clinic.

Not every patient that was admitted to the ED Observation Unit over the month of October 2022 took part in the project. Out of 650 patients admitted to the ED OBS unit in the month of October 2022, only 536 participated, leaving 114 patients unenrolled. The RN did not screen them for unknown reasons. There was no place on the tool for the RN to mark down whether the patient refused to participate, if they were too busy to ask the patient the survey questions, or if they simply forgot to add this tool to their admission assessment. Fourteen women were actively prescribed opiates for a chronic pain condition compared to 4 men prior to arrival to the Observation Unit. Five women were unable to answer the RODS questions due to altered mental status/dementia issues.
compared to 2 men who were unable to answer. It is unclear as to why the other 114 patients did not participate.

**TABLE 1**

SCREENING TOOL DATA COLLECTION RESULTS- GENDER

<table>
<thead>
<tr>
<th>RAPID OPIOID DEPENDENCE SCREEN</th>
<th>TOTAL RODS SCORE</th>
<th>MALE</th>
<th>FEMALE</th>
<th>#REFERRALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ SCREEN</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>-SCREEN</td>
<td>246</td>
<td>290</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOT ANSWERED</td>
<td>4</td>
<td>14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 2**

SCREENING TOOL DATA COLLECTION RESULTS- AGE

<table>
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<th>RAPID OPIOID DEPENDENCE SCREEN</th>
<th>MALE</th>
<th>FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;18</td>
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<td>0</td>
</tr>
<tr>
<td>20 YRS. +</td>
<td>9</td>
<td>13</td>
</tr>
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<td>30 YRS.+</td>
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<tr>
<td>80 YRS+</td>
<td>45</td>
<td>57</td>
</tr>
<tr>
<td>90 YRS+</td>
<td>23</td>
<td>50</td>
</tr>
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</table>
Discussion

In summary, the project goals were not met. There were major limitations to this study which could be addressed in future research. Of note, the Emergency Department Observation Unit does not admit patients from the ED with a presenting chief complaint of a Psychiatric Disorders (such as Suicidal Ideation, Depression, Auditory Hallucinations, etc.) or Alcohol Intoxication/Abuse/Withdrawal. This is mainly because diagnoses like these usually require a longer length of stay or a hospital admission. By excluding this ED population who present with the forementioned diagnoses, a large subset of potential patients who could benefit from early OUD screening were not reached. Future considerations should be to incorporate the RODS screening tool with all patients when they present to the Main Emergency Department Triage Desk. This way every patient is asked on arrival regardless of chief complaint or where they end up in the department during their visit.

In reviewing the survey results, not finding a patient in need for OUD treatment and referral over a month’s time frame was surprising. One consideration was perhaps the patients decide to not answer truthfully when they are presented with questions of a sensitive nature with regards to health history. Perhaps they feel judged or shamed. The way in which the ED OBS RN staff broach these substance use questions could possibly impact whether or not patient’s respond with truthful answers. Patients may be “predisposed to provide distorted information due to anxiety, embarrassment, protecting family secrets, unconscious defense mechanisms such as rationalization and denial, and conscious attempts to deceive” (Shea, 2007, p. 253), when it comes to discussing
sensitive health information and behaviors. Considering training nurses to interview patients using behavioral incidents, gentle assumptions and symptom amplification prior to repeating this project in the Main Emergency Department may yield more telling results. (Shea, 2007)

Behavioral incidents include fact finding and sequencing where the patient is asked for facts instead of opinion (Shea, 2017). For example, in discussing something difficult like a drug use the provider would ask exact questions like “How many oxycodone pills did you take daily? How many mg are each tablet? As opposed to asking the question like this: “Would you say you are a heavy drug abuser?"

Gentle assumption includes normalizing behavior so the patient feels as though the RN has seen or heard much worse than anything the patient may admit to partaking in (Shea, 2017). For example, if a provider is trying to inquire about substance use history while using gentle assumption they could say something like: “We have found that many of our patients struggle with substance abuse, even though that may not be the initial reason they came to the hospital. Because this is such a common problem, we use the RODS questionnaire to screen all patients and offer immediate treatment to those who screen positive substance use disorder”.

Lastly, symptom amplification is another effective way in which nurses can ask sensitive medical questions and obtain accurate information without making the patient feel judged or criticized. The interviewer may asks questions using an upper limit quantity that is very high, therefore allowing the patient to feel like admitting to what they use regularly is not an absurd amount.
Another limitation of this project was that the RODS survey was not in the Electronic Medical Record (EMR). Since all role groups in the Emergency Department use the EPIC EMR, it would have been helpful for the data to be entered into the patient’s record so all treating team members could view the data in real time. At the time of this project was implemented, the RODS survey was on a separate piece of paper. The nurses needed to be reminded to ask each patient by the shift charge nurse.

Of note, shortly after the conclusion of this Quality Improvement Project, the Drug Enforcement Agency (DEA) issued a statement on December 29, 2022, the signing of the Consolidated Appropriations Act of 2023 effectively eliminated the DATA-Waiver Program (Appendix G). According to the letter providers no longer need to apply for an X waiver license to prescribe Suboxone for OUD. This means no more labor intensive or costly required training was necessary to prescribe suboxone for OUD. In addition, there is also no limit to the number of patients a prescriber may treat with suboxone. If this quality improvement project was repeated now perhaps more providers would feel comfortable prescribing MAT and actively treating OUD.

There are a few suggestions that could improve the outcome of this project for the next cycle of implementation. First, perhaps expanding the population of the project to every patient who presents to the main Emergency Department Triage desk would help to reach a broader base of patients. Secondly, if the RODS tool was in the EMR instead of on paper, it would most likely ensure greater participation from the RN staff. Perhaps the 114 patients from this project who were not screened, would have been. Next, adding a section as to why the survey was not completed would be helpful to reviewers. Lastly,
when introducing the project, the DNP student should consider including a training session for the nurses who were administering the RODS survey, that reviews interviewing tactics when asking sensitive questions such as behavioral incidents, fact finding, gentle assumptions, and amplification (Shea, 2017). This may help patients answer the sensitive questions truthfully.

Conclusion

The timely screening and identification of patients with Opioid Use Disorder who present to a large urban academic medical center is essential. The literature shows that with early recognition and assessment, patients are more likely to agree to immediate treatment and help (Brogan et al., 2020). By identifying these patients early, it reduces the chance of them leaving against medical advice due to withdrawal symptoms or other OUD related issues. By screening for OUD, return rates to the ER for additional medical treatment and/or opioid overdoses can be reduced. The DEA made two helpful moves in January of 2023, first by removing the limit to the number or patients a provider can treat with suboxone, and secondly by no longer requiring the labor intensive costly training required for X-waiver licensing for clinician prescribing authority. Now that more providers have the ability to treat OUD with an everyday DEA license number, perhaps they will be more inclined to do so.

Arming staff with an easy, quick, reliable tool such as the RODS in which RNs are able to screen every patient who present to the Emergency Department, and not just the ED Observation Unit, may help to identify many more patients. In addition, it could be helpful to streamline the interview approach started during this quality improvement
project, by adding additional training sessions for nurses on how to ask questions and elicit truthful answers regarding sensitive health information and behaviors. Adding fine tuning to this baseline quality improvement project will hopefully help identify more Emergency Department patients at risk for OUD, and allow them the opportunity for immediate services on the spot to address their addiction.
References


Purdue Online Writing Lab. (2018A). *APA tables and figures 1.* Retrieved from
Appendix A

Lewin’s Change Theory

1. Recognize the need for change
2. Determine what needs to change
3. Encourage the replacement of old behaviors and attitudes
4. Ensure there is strong support from management
5. Manage and understand the doubts and concerns

1. Plan the changes
2. Implement the changes
3. Help employees to learn new concept or points of view

1. Changes are reinforced and stabilized
2. Integrate changes into the normal way of doing things
3. Develop ways to sustain the change
4. Celebrate success
Appendix B (Educational Material for OBS RN Staff – See Attachment)

SCREENING FOR OPIOID USE DISORDER IN THE EMERGENCY DEPARTMENT SETTING
KENDRA M. LEHMAN RN MSN FNP NE-BC
UNIVERSITY OF MASSACHUSETTS AMHERST
DNP CANDIDATE

PROBLEM: PATIENTS WITH OPIOID USE DISORDER (OUD) WHO PRESENT TO THE EMERGENCY DEPARTMENT (ED) FOR MEDICAL TREATMENT OF ANY KIND ARE NOT OFFERED A TREATMENT OPTION FOR THEIR ADDICTION

• MANY OUD PATIENTS WISH TO SEEK TREATMENT BUT DO NOT KNOW HOW TO ATTEMPT THIS PROCESS DUE TO LACK OF SOCIAL SUPPORT, PLANNING, TIME, RESOURCES

• SEIZING THE OPPORTUNITY TO SCREEN EVERY PATIENT WHO PRESENTS TO ED OU WILL HELP IDENTIFY THOSE WHO DO NOT SELF IDENTIFY INITIALLY
GAP ANALYSIS

• Many patients who have OUD leave the ED without completing treatment for the medical issue they presented for due to long length of stay and withdrawal symptoms.
• This results in many return visits to the ER by this population of patients.
• Upon review of this literature, patients who enrolled in these ED initiated programs have benefitted from access to immediate Opioid Use Disorder (OUD) treatment because they tend to comply with recovery longer and tend to complete medical treatment in the ED for their initial complaint.

Problem Statement

• Problem Statement: The risk of patients, aged 18-65, who present to an Emergency Department with Opioid Use Disorder (OUD) is indicated by a lack of screening from healthcare providers (Nurse Practitioners, Physician Assistants, Registered Nurses, and Physicians) and is indicated by patients leaving without completing medical treatment due to withdrawal symptoms and results in multiple return visits to the ED.
Purpose Statement

- The purpose of this DNP project is to identify and assess patients aged 18-65 for Opioid Use Disorder (OUD) who present to the Emergency Department Observation Unit for any medical condition. The goal of this project is early treatment with initiation of suboxone therapy and referral to outpatient resources to improve recovery compliance.

INTERVENTION

- Educate ER staff (RN, NP, PA, MD) about standardized screening process for all patients.
- Administer an organized SBIRT program which includes a focused screening tool used on all patients who present to the EDOU regardless of chief complaint.
- If patient screens positive for opioid use disorder (OUD) offer brief intervention. Suboxone induction while in the observation unit with a plan to discharge home with enough medication to carry patient over to immediate outpatient follow up appointment with an outpatient treatment provider.
Rapid Opioid Assessment Tool

1. Have you ever taken any of the following drugs?
   a. Heroin  ○ Yes  ○ No
   b. Methadone  ○ Yes  ○ No
   c. Butenorphine  ○ Yes  ○ No
   d. Morphine  ○ Yes  ○ No
   e. MS Contin  ○ Yes  ○ No
   f. Oxycontin  ○ Yes  ○ No
   g. Oxycodeone  ○ Yes  ○ No
   h. Other opioid analgesics (e.g., Vicodin, Darvocet, etc.)  ○ Yes  ○ No

2. Did you ever need to use more opioids to get the same high as when you first started using opioids?
3. Did the idea of missing a fix (or dose) ever make you anxious or worried?
4. In the morning, did you ever use opioids to keep from feeling “dope sick” or did you ever feel “dope sick”?
5. Did you worry about your use of opioids?
6. Did you find it difficult to stop or not use opioids?
7. Did you ever need to spend a lot of time trying to find opioids or recovering from feeling high?
8. Did you ever miss important things like doctor’s appointments, family/friend activities, or other things because of opioids?

Scoring Instructions: Add number of “yes” responses for questions 2 to 8. If total is > 3, code “yes” for opioid dependent. If total is < 2, code “no” for opioid dependent.

Opioid Dependent: ○ Yes  ○ No

Role of the Observation Unit RN

- During October 1st – October 31st 2022, ask every patient on admission regardless of the PODS assessment tool.
- If answer to the first question is no, please place the patient’s chart on the top of the form and place it sealed box at nurses station. That is all that is needed.
- If the patient answers yes to the first question, please continue on and complete the entire form. If the patient scores positive for opioid use disorder, make the observation assistant (OA) aware who is assigned to the patient, or KENDRA LEHMAN who can also assess patient and reduce the use of benzodiazepine for medication-induced therapy.
- If the patient starts med, they will be evaluated by the AVOID team to set up close outpatient follow up in the bridge clinic.
- If patients refuse to enroll in treatment, they can be discharged home with Narcan.
CONCLUSION

• By initiating a screening tool in the EDU setting that will ask every patient regardless of chief complaint about OUD, the rate of treatment of OUD will increase.

• Patients who screen positive will meet with Addictions Team and Suboxone certified provider while in the EDU. They will be offered rapid induction therapy. Patients who are identified but decline MAT will be discharged with Narcan.

• Patient will be given a short course of Suboxone to "bridge" them to their outpatient appointment with Addictions Team who will consist of prescribing provider, social worker, and recovery coach.

• Patient will be followed closely in recovery program as outpatient.
Appendix C

RODS Tool

1. Have you ever taken any of the following drugs?
   a. Heroin
   b. Methadone
   c. Buprenorphine
   d. Morphine
   e. MS Contin
   f. Oxycontin
   g. Oxycodone
   h. Other opioid analgesics (e.g., Vicodin, Darvocet, etc.)

   If any drug in question 1 is coded "yes", proceed to questions 2 to 8.
   If all drugs in question 1 are "no", skip to end and code "no" for opioid dependent.

2. Did you ever need to use more opioids to get the same high as when you first started using opioids?
   Yes No

3. Did the idea of missing a fix (or dose) ever make you anxious or worried?
   Yes No

4. In the morning, did you ever use opioids to keep from feeling "dope sick" or did you ever feel "dope sick"?
   Yes No

5. Did you worry about your use of opioids?
   Yes No

6. Did you find it difficult to stop or not use opioids?
   Yes No

7. Did you ever need to spend a lot of time/energy on finding opioids or recovering from feeling high?
   Yes No

8. Did you ever miss important things like doctor’s appointments, family/friend activities, or other things because of opioids?
   Yes No

Scoring Instructions: Add number of "yes" responses for questions 2 to 8.
If total is > 3, code "yes" for opioid dependent. If total is < 2, code "no" for opioid dependent.
Appendix D IRB Letter

March 30, 2022

Dear UMass IRB,

This is a letter regarding Kendra Lehman’s DNP Scholarly Project: Screening for Opioid Use Disorder in the Emergency Observation Unit at Massachusetts General Hospital. She is student in the DNP Program at the University of Massachusetts-Amherst. She is conducting a quality improvement project at MGH. The purpose of the project is to improve upon screening and early treatment of Emergency Department patients admitted to the Observation Unit and may have opioid use disorder and will be used for purposes of the site.

Her proposal does not need to go through IRB approval at our site because it is a quality improvement intervention. If you have any questions, please feel free to contact me. Thank you for this consideration and for your academic support of this student.

Sincerely,

Dawn Williamson RN DNP
Addictions Medicine
Department of Emergency Medicine
Massachusetts General Hospital
Boston MA 02115
Dwilliamson19@partners.org
## Appendix E

### Cost Benefit Analysis

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<th>Items</th>
<th>Cost in Dollars</th>
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<tr>
<td>Copy, printing, laminating of paper for survey</td>
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<td>Toner for printer cartridge</td>
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<td>Conference room for staff meeting</td>
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<tr>
<td>Laptop/ SPSS Grad pack</td>
<td>$125.00 computer program purchased by DNP student (laptop preowned)</td>
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<tr>
<td>Time for training staff</td>
<td>$0.00 (done during shift)</td>
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<td>Total Cost of QI Project</td>
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## Appendix F

### Project Timeline

#### Table 1

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<tr>
<td>Present QI project to RN Staff via email and staff meeting</td>
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<td>Intervention; RN Staff administer RODS Survey to all OBS patients</td>
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<td>Data from pre-intervention obtained</td>
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<td>All intervention Data summarized and analyzed</td>
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Appendix G - Letter from DEA with X-Waiver Updates as of 1/12/23