

**Nurse Perspectives about Screening Patients with Opioid Use Disorder, an Educational  
Intervention**

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February 18, 2024

## DNP FINAL PROJECT

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## Abstract

**Introduction/Purpose:** The consequences of drug overdoses are devastating, with opioids being a major contributor to preventable deaths. Those with cardiovascular disease are particularly vulnerable to the effects of opioid use, making the need for effective Opioid Use Disorder (OUD) screening even more pronounced. This scholarly project aims to assess the impact of an educational intervention on nurses' confidence and perceived benefits of opioid use disorder screening among cardiovascular patients.

**Methods:** Staff nurses completed an anonymous, online Qualtrics pre-survey consisting of questions pertaining to nurse's attitudes, perceptions, and preparedness regarding screening for OUD. Following the pre-survey, education regarding OUD screening and risks associated with OUD and cardiovascular disease was completed. Within two weeks of completing the education, staff nurses then completed the identical post-education survey.

**Results:** The percentage of nurses who answered "strongly agree" (seventeen percent, n=4) and "agree" (forty-two percent, n=10) to the statement "I feel prepared to screen my patients for OUD/opioid use" decreased on the post-survey after they participated in the educational intervention. On the post-survey, twelve percent (n=3) answered "strongly agree" and thirty-two percent (n=8) answered "agree".

**Discussion:** The educational intervention in this project did not educate participants on any specific OUD screening tool, numerous nurses expressed interest in learning more about how to implement a specific tool at the bedside. This may have been represented by a decrease in the percentage of nurses who felt prepared to screen their patients for OUD/opioid use on the post-survey. This unit would benefit from further OUD screening tool education.

**Keywords:** Opioid use disorder, OUD, cardiovascular disease

## **Nurse Perspectives on Patients with OUD and Screening for OUD**

Drug overdoses continue to claim the lives of many and have devastating consequences across the United States. The overwhelming majority of these drug overdoses are due to the misuse of opioids, making these deaths preventable. According to the Centers for Disease Control and Prevention (CDC), there were 92,000 drug overdose deaths in 2020, and nearly 75% of them involved opioids (2022). Those with heart disease and/or history of stroke are particularly vulnerable to the effects of opioid use. It is imperative that this population be screened for opioid use disorder so that appropriate interventions can be taken.

### **Background**

Worldwide, approximately 500,000 deaths have been attributed to drug use. Greater than 70% of these deaths are related to opioids specifically (World Health Organization [WHO], 2020). Opioids are a class of drugs that include prescription pain relievers, synthetic opioids, and the drug heroin. Data collected in 2018 reveals that more than 130 people die every day in the United States due to opioid overdose (Health Resources and Services Administration [HRSA], 2020). In 2016, more than 11.5 million Americans admitted to the misuse of prescription opioids (Centers for Disease Control and Prevention [CDC], 2017).

The opioid epidemic began in the 1990's, and it's start can be partially attributed to increased pharmaceutical marketing and misinformation regarding opioids addictive potential. In turn, the rate at which many healthcare providers prescribed opioid pain relievers increased greatly. This led to widespread misuse of both prescription as well as non-prescription opioids (U.S. Department of Health and Human Services [HHS], 2022). Opioid misuse and diversion have since become a public health crisis and has had devastating consequences.

Prescription opioid misuse is defined as the use of prescribed opioids in greater quantities than prescribed or using them for reasons other than originally prescribed (National Institutes of Health [NIH], 2020). Opioid diversion is defined as redirecting legally prescribed opioids to for improper use not intended by the prescriber (National Institutes of Health [NIH], 2020).

Opioid misuse and diversion effects not only public health but has very serious social and economic repercussions as well. In the United States, the cost of managing prescription opioid misuse alone is \$78.5 billion every year. This includes costs associated with addiction treatment, lost productivity, legal costs, as well as overall healthcare costs (NIH, 2020). More significant than that is the fact that death due to opioid analgesics is now the most common cause-of-injury death among patients between the ages of 35 to 54 years old (Axeen, 2018). Prescription opioid misuse has led to an increase in intravenous drug use (HHS, 2019). This, in turn, has also increased the spread of infectious diseases (HHS, 2019).

Given the extent to which opioid misuse and diversion is problematic, it is crucial that healthcare providers identify and subsequently treat Opioid Use Disorder (OUD). OUD is defined as a pattern of opioid use that causes the user distress or leads to difficulties, along with meeting specific symptom criteria (American Psychiatric Association, 2022). Those that suffer from heart disease and/or stroke are at increased risk for potential complications if taking opioids, prescribed or illicit, along with medications used to manage and treat heart disease (American Heart Association [AHA], 2021). Healthcare professionals are advised to screen for opioid use disorder in people with heart disease, as well as focus upon non-opioid strategies for managing their pain (AHA, 2021). Many various OUD screening tools are available for use, however the AHA has not given a recommendation for use of any specific tool.

### **Problem Statement**

Identifying those currently suffering from OUD, or at risk for OUD, gives providers the opportunity to address health concerns, alter treatment options, and/or offer resources for treatment of OUD. This scholarly project aims to assess the impact of an educational intervention on nurses' confidence and perceived benefits of opioid use disorder screening among cardiovascular patients.

### **Organizational “Gap” Analysis of Project Site**

The site of this project is a nonprofit, 199-bed community hospital in Southern California. The unit where this scholarly project took place is primarily a stroke and cardiac mixed medical-surgical/telemetry unit. The unit does not currently use any drug, alcohol, opioid misuse or risk for misuse screening tools in their practice. When speaking with the unit manager, she confirmed that the unit is currently not using a screening tool for OUD and that her nurses would benefit from education regarding the need and benefit for OUD screening among patients with cardiovascular disease. Many of the nurses on the unit have three years or less of experience as a registered nurse and would especially benefit from further education regarding OUD screening (D. Velazquez, personal communication, September 13, 2023). In a system wide initiative in 2023 involving several mandatory Behavioral Health Care Classes at this organization, pre and post test scores indicated that staff perceptions of their ability to recognize behaviors that indicate a patient may have alcohol or drug abuse problems increased. However, this internal tool used to identify and address knowledge gaps among staff also noted that the number of staff that chose not to answer the question regarding ability to recognize problematic behaviors increased by 10 people.

### **Review of the Literature**

A search of the literature was completed utilizing the PubMed database with limiting criteria of a five year date range 2018 to 2023 and Medical Subject Headings (MeSH) search terms “Opioid use disorder” linked by the Boolean “AND” to “cardiovascular disease”. This yielded 184 results. Limiters were then set to English language, an age range of 19+ years, peer reviewed, and human studies. This left 47 manuscripts. Of those, abstracts were read by author to determine relevancy. Studies of the relationship between opioid use and cardiovascular disease other than those of interest (i.e. HIV association, management of infective endocarditis, COVID-19 association, post-mortem studies, etc.) were excluded. Eight articles were then reviewed as follows.

In a 2021 American Heart Association (AHA) advisory, Chow et al. looked at current literature in an attempt to provide approaches for identifying patients with opioid use disorder (OUD), as well as addressing both pain management and overdose. The AHA advisory recommends that cardiologists, neurologists, and vascular medicine physicians utilize validated tools to screen patients for opioid misuse in order to refer those who screen positive for treatment. Regarding acute pain management in patients with cardiovascular disease, the AHA advisory recommends using the lowest effective opioid dosages if alternative approaches are ineffective in managing pain. In addition, the routine use of morphine in the setting of Acute Coronary Syndrome (ACS) may adversely reduce the therapeutic efficacy of P2Y12 receptor antagonists (AHA, 2021). Therefore, the recommendation is for health care professionals who manage pain in the setting of cardiovascular disease and stroke should receive training in evidence-based nonopioid pain management strategies and OUD screening (AHA, 2021).

Itoga (2019) conducted a retrospective study of nearly 180,000 patients and analyzed the relationship between peripheral arterial disease (PAD) and high-risk opioid use. Results of this



research indicated that 24.7% of PAD patients met criteria for high opioid consumption; with an even higher percentage found among those diagnosed with critical limb ischemia (CLI) and an increase in opioid usage was seen following diagnosis of PAD (Itoga et al., 2019). PAD is a form of cardiovascular disease, further emphasizing the recommendation from the AHA article that cardiovascular patients should be screened for OUD. Many various OUD screening tools are available for use, however the AHA has not given a recommendation for use of any specific tool (AHA, 2021).

In a review article featured in the *Journal of the American College of Cardiology*, Krantz et al. (2021) discusses the cardiovascular risks of opioid usage and highlights the limited role opioids should play in cardiovascular practice. Opioids may lead to cardiovascular side effects including hypotension, bradycardia, vasodilatory flushing and syncope, while opioid withdrawal may bring with it hypertension, tachycardia, stress cardiomyopathy, as well as acute coronary syndrome. Synthetic opioids in particular appear to possess additional effects on conduction, repolarization and arrhythmia risk (Krantz et al., 2021). This article emphasizes the significance of practicing careful prescribing practices when treating post-procedure acute pain and suggests early recognition of dependency or withdrawal signs to facilitate timely referral to addiction treatment resources for cardiovascular patients.

Khalili et al. (2021) conducted a cross-sectional study in Iran that examines the correlations between opium use and cardiovascular diseases. This study established a link between opium use and an increased risk of cardiovascular diseases and myocardial infarction, including angina pectoris and myocardial infarction. This is significant because opium is an opiate and opioids have a similar effect on the body as opiates do because opiates contain similar molecules that interact with the body's receptors, despite the difference in their origin, (HHS,

2023). Opiates are drugs derived from poppy plants, such as opium, morphine, and codeine while opioids can be either synthetic or partially synthetic substances (HHS, 2023). Additionally, Mousavi-Mirzaei et al. (2019) performed a cross-sectional study that concluded that the frequency of carotid atherosclerotic plaques in opium addicted patients was higher than nonaddicted patients and undergoing stroke and opium addiction was associated with plaque formation in the internal carotid artery, indicating that opium addiction could be considered a risk factor for stroke (Mousavi-Mirzaei et al., 2019). Likewise, Abdiardekani et al. (2022) conducted a case-control study of 170 patients and concluded that opium was an independent risk factor with specific effects on angiographic findings in cardiovascular patients. Furthermore, the complexity of CAD in opium users who undergo percutaneous coronary intervention is significantly higher (Abdiardekani et al., 2022).

In an observational study, Vallecillo et al. (2023) focused on analyzing cardiovascular risk factors among adults aged 50 or above with opioid use disorders (OUD). Results demonstrated a higher than usual overall cardiovascular risk in this population, emphasizing the need for preventive interventions to mitigate potential harms associated with opioid addiction. Primary prevention strategies such as tobacco smoking cessation and weight management must be prioritized in clinical care for people diagnosed with OUD as tobacco smoking, low HDL-cholesterol, hypertriglyceridaemia and atherogenic dyslipidaemia were significantly higher in the group of patients with OUD (Vallecillo et al, 2023). This reiterates the necessity for OUD screening for cardiovascular patients advised by the AHA (2021).

In a post hoc analysis, Liew (2022) identified opioid use as a non-traditional risk factor for cardiovascular disease events in community-dwelling older adults. The risk of heart failure and stroke was also significantly elevated in opioid users compared with non-users (Liew, 2022).

A common theme for many of these articles is that OUD increases the risk for cardiovascular disease. Therefore, it is recommended that cardiovascular patients be screened for OUD utilizing a validated screening tool.

### **Evidence-based Practice: Verification of Chosen Option**

Due to the significant cardiovascular risks that OUD poses, the lack of screening for OUD, and the risk for OUD among admitted cardiovascular patients, the PICOT question guiding this project was: Among staff nurses caring for adults admitted to the Cardiovascular/Stroke Unit (P), does the implementation of education regarding OUD screening (I) affect (C) staff nurse perspectives on patients with OUD and screening for OUD? Utilizing a pre and post survey to measure if staff nurse attitudes and preparedness to screen for OUD improved and whether they feel clinically competent to screen patients for OUD may assist the unit in evaluating the need for the adoption of a validated OUD screening tool.

### **Theoretical Framework/Evidence-Based Practice Model**

Kurt Lewin's Three-Step Model of Change is a middle-range theory which addresses organizational change (Burnes, 2020). The theory, originally developed in the 1940's, describes change as a three-stage process: unfreeze, change, and refreeze (Burnes, 2021). During the first stage, unfreezing, change will only occur when there is strong motivation to pursue it. Individuals within an organization become accustomed to the status quo and must be persuaded of the need for change by seeing it as vital for progress (Memon et al., 2021). In this project, the process of unfreezing was accomplished through the recognition that the unit is currently not using an OUD screening tool among this high-risk population. Many of the staff nurses are new to the nursing profession and lack the knowledge and confidence to recognize and screen for OUD.

The second stage of Lewin's Change Model is the change itself. This can be an unsettling stage for staff, and they may feel uncomfortable about implementing the suggested change (Burnes, 2020). During this time, education for the staff nurses regarding the necessity of implementing an OUD screening tool for newly admitted cardiovascular patients occurred and was completed in-person. All questions were answered, and evidence-based best practice research was presented to staff nurses to emphasize the significant cardiovascular risks that OUD poses and rationale for implementing an OUD screening tool was thoroughly explained. It was essential to keep continual and clear communication as a priority to both reiterate the benefits of implementing an OUD screening tool, as well as to address any challenges faced by the staff nurses. Questions were answered, and guidance was given as necessary during this stage.

The third and final stage is refreezing. This marks the complete integration of the change, with the team now operating in the new manner. This stage is crucial as it signifies a return to stability and affirms the value of the change (Burnes, 2020). The goal of this stage was for staff to have obtained the confidence, knowledge, and understanding of OUD screening and its necessity among this population. Support was provided to help the team internalize the new approach, while maintaining a positive and celebratory atmosphere to reinforce the initial purpose of the change and foster ongoing organizational success. Results were shared with the staff nurses, and they were thoroughly thanked for their efforts.

This middle-range change theory is the theory best suited for this quality improvement project. To be utilized effectively, fear of change needs to be addressed. This can be accomplished through effective communication and information sharing (Memon, 2021). See Figure 1 for a visual graphic of how this project operationalized Lewin's Three-Step Model of Change.

## **Goals and Objectives**

The goal of this doctoral project is to assess the impact of an educational intervention on nurses' confidence and perceived benefits of opioid use disorder screening among cardiovascular patients. Pre-surveys were administered before educating staff nurses on the ward. Education was then accomplished by completing an in-person presentation on each of the various work shifts, including night shifts and weekend shifts. Printed flyers and educational packets were also provided to the staff nurses for review afterwards. An identical post-survey was then given to nurses after the educational intervention for comparison.

## **Setting Facilitators and Barriers**

A strong facilitator for this project was the department's nurse manager. The manager was dedicated to assisting with this project and has identified the lack of education regarding screening tools for OUD on the unit as an area for improving care for their patients. Prior to implementation, she indicated that she was committed to assisting her staff in attending the OUD education and followed through by allowing time for the PI to speak with staff and encouraging staff to attend the OUD education. With encouragement, support, and effective communication, the nurses will see the value in adopting an OUD screening tool as a normal part of their admissions interview. One barrier encountered was asking nurses to take the time to attend education regarding OUD screening when their time is limited. However, time spent educating them was condensed into a timeframe that was most convenient to the needs of the department and education was kept primarily to essential and concise details.

## **Methods (Plan)**

Institutional Review Board (IRB) approval was granted from the University of Alabama (IRB # 23-09-6972: Appendix A). Inclusion criteria included all staff nurses working on the unit.

Exclusion criteria included nurses not working on the unit, as well as those declining invitation to participate. Working with the department manager, the primary investigator (PI) scheduled a series of educational sessions with the nursing staff. Prior to educating the staff nurses, the nurses completed an anonymous, online Qualtrics pre-survey. The survey utilized a Likert scale consisting of questions pertaining to nurse's attitudes, perceptions, and preparedness regarding screening for OUD. Following the pre-survey, education regarding OUD screening and risks associated with OUD and cardiovascular disease was then completed. Three in-service educational sessions on differing work shifts was completed by the PI in order for all nurses to have the opportunity to attend. The content for each educational session was identical.

Each nurse was given hardcopies of all OUD educational materials. Educational materials and flyers were also placed on breakroom bulletin boards as well as at the main nurse's station so that all materials are easily accessible to all nurses. Within two weeks of completing the education, nurses then completed the post-education survey. It was identical in content to the presurvey. Both pre and post surveys were completed online via Qualtrics Surveys. Qualtrics is secure, anonymous, and only aggregate results were utilized. See Figure 3 for a visual graphic of the OUD screening survey that nurses completed online before and after OUD screening education.

### **Project Design**

The project design of this DNP project is to deliver an educational intervention organized by the PI. This educational intervention consisted of a 15-minute face to face presentation on OUD screening and the risks associated with OUD and cardiovascular disease. The identical presentation was given once on three differing work shifts in order to educate all staff nurses on the unit. Prior to the education, nurses completed an online survey regarding nurse's attitudes,

perceptions, and preparedness regarding screening for OUD. Educational materials were given to each nurse and left on the unit for reference. Nurses were then be asked to complete the same survey again within two weeks of the education.

### **Project Site and Population**

This quality improvement project was conducted in a nonprofit, 199-bed community hospital in Southern California. The surrounding community is densely populated with over 10% of residents living below the poverty line (U.S. Census Bureau, 2022). This community hospital is located within a county where, in 2022, an estimated 740,000 individuals suffered from substance use disorder and 830 individuals died due to opioid-related overdoses (CDPH, 2022). The unit where the OUD education was implemented is primarily a stroke and cardiac unit. The unit has a maximum of 36 beds and gets an average of ten newly admitted patients per day. Each shift has between nine to eleven nurses working at any given time, depending upon patient census on the unit. The unit does not currently use any drug, alcohol, opioid misuse, or risk for misuse screening tools in their practice.

### **Measurement Instruments**

A survey created using the software program Qualtrics utilized a Likert scale consisting of questions pertaining to nurse's attitudes, perceptions, and preparedness regarding screening for OUD. Surveys were completed online utilizing a secure link to the survey. Qualtrics is secure, anonymous, and only aggregate results will be used. See Figure 3 for a visual graphic of the OUD screening survey that nurses will be completing online before and after OUD screening education.

### **Data Collection Procedures**

Each of the OUD screening survey items was asked and scored online via Qualtrics information provided by the PI (See Figure 3). A link to the survey was provided to each staff nurse on the unit. Qualtrics is secure, anonymous, and only aggregate results were used.

### **Data Analysis**

All data obtained from the anonymous Qualtrics surveys was aggregated percentages. The percentage of respondents that answered “strongly agree”, “agree”, “neither agree nor disagree”, “disagree”, and “strongly disagree” for each of the statements on the survey was calculated. These simple percentages from the presurvey were compared to the percentages obtained from the identical postsurvey and evaluated for clinical significance. Identifying if the impact of an educational intervention on nurses’ confidence and perceived benefits of opioid use disorder screening among cardiovascular patients can increase their perceived preparedness to screen their patients for OUD could greatly improve patient outcomes and, therefore, quality of life.

### **Cost-Benefit Analysis/Budget**

The cost of this project realization was minimal, with the PI absorbing all associated costs. The PI supplied all educational materials, including hardcopies for staff nurses. The PI also be supplied refreshments for participants and covered the cost of these refreshments. All educational presentations and data dissemination was done during mandatory pre-work huddles. The Qualtrics survey tool is supplied via The University of Alabama at no cost to the PI. The benefit of this project is that educating the staff nurses regarding the risks associated with OUD and cardiovascular disease and assessing their perspectives on patients with OUD and screening for OUD may increase their preparedness for adopting an OUD screening tool on the unit. It is believed that the benefits of this project will outweigh any costs.



### **Timeline**

IRB approval was received on October 24, 2023. The first pre-surveys, educational intervention, and post-surveys were completed on December 7, 2023. Data extraction began at that time. Data was collected for a period of two weeks after each educational intervention completed, with data collection ending on January 10, 2024. Afterwards, data analysis and interpretation of outcomes was completed by the end of February 2024. Manuscript development began in March 2024, with dissemination of results to unit staff completed April 2024. Dissemination of results to a nursing journal for publication will begin in May 2024 and will likely continue until October 2024. A representation of this timeline is displayed in Figure 4. This project spanned approximately 12 months.

### **Ethical Considerations/Protection of Human Subjects**

The University of Alabama (UA) Institutional Review Board (IRB) approval was obtained prior to initiating the project. All information collected as part of evaluating the impact of this project was aggregated data from the project participants and will not include any potential identifiers. No personally identifiable information was extracted or used for this quality improvement project.

### **Results**

Participants (N=28) were given a pre-survey prior to the educational intervention. Upon completion of the educational intervention, participants were asked to complete the post-survey (N=29). The post-survey contained 5 identical questions to the pre-survey, utilizing a Likert scale. Pre-survey and post-survey statement one read “It is easy to identify a patient with OUD without any screening tool.” On the pre-survey, 16% (n=4) answered that they “strongly agree”, 24% (n=6) answered that they “agree”, 36% (n=9) answered that they “neither agree nor

disagree”, 24% (n=6) answered that they “disagree”, and zero percent (n=0) answered that they “strongly disagree”. When participants were asked to rate their level of agreement with the same statement on the post-survey, eight percent (n=2) answered that they “strongly agree”, 24% (n=6) answered that they “agree”, 32% (n=8) answered that they “neither agree nor disagree”, 28% (n=7) answered that they “disagree”, and eight percent (n=2) answered that they “strongly disagree”. See Table 1 and Table 2 below for a visual representation of results for statement one on both the pre-survey and the post-survey.

**Table 1**

*Pre-survey statement one*

Q1. Please rate your level of agreement with the following statement: It is easy to identify a patient with Opioid Use Disorder (OUD) without any screening tool.

	Percentage	# of respondents
Strongly agree	16%	4
Agree	24%	6
Neither agree nor disagree	36%	9
Disagree	24%	6
Strongly disagree	0%	0

**Table 2**

*Post-survey statement one*

Q1. Please rate your level of agreement with the following statement: It is easy to identify a patient with Opioid Use Disorder (OUD) without any screening tool.

	Percentage	# of respondents
Strongly agree	8%	2
Agree	24%	6
Neither agree nor disagree	32%	8
Disagree	28%	7
Strongly disagree	8%	2

Pre-survey and post-survey statement two read “I feel responsible to help identify patients with OUD.” On the pre-survey, 24% (n=6) answered that they “strongly agree”, 60% (n=15) answered that they “agree”, 12% (n=3) answered that they “neither agree nor disagree”, four percent (n=1) answered that they “disagree”, and zero percent (n=0) answered that they “strongly

disagree”. When participants were asked to rate their level of agreement with the same statement on the post-survey, 25% (n=6) answered that they “strongly agree”, 67% (n=16) answered that they “agree”, eight percent (n=2) answered that they “neither agree nor disagree”, zero percent (n=0) answered that they “disagree”, and zero percent (n=0) answered that they “strongly disagree”. See Table 3 and Table 4 below for a visual representation of results for statement two on both the pre-survey and the post-survey.

**Table 3**

*Pre-survey statement two*

Q2. Please rate your level of agreement with the following statement: I feel responsible to help identify patients with OUD.

	Percentage	# of respondents
Strongly agree	24%	6
Agree	60%	15
Neither agree nor disagree	12%	3
Disagree	4%	1
Strongly disagree	0%	0

**Table 4**

*Post-survey statement two*

Q2. Please rate your level of agreement with the following statement: I feel responsible to help identify patients with OUD.

	Percentage	# of respondents
Strongly agree	25%	6
Agree	67%	16
Neither agree nor disagree	8%	2
Disagree	0%	0
Strongly disagree	0%	0

Pre-survey and post-survey statement three read “I don’t have enough time to screen for OUD.”

On the pre-survey, 17% (n=4) answered that they “strongly agree”, 17% (n=4) answered that they “agree”, 29% (n=7) answered that they “neither agree nor disagree”, 38% percent (n=9) answered that they “disagree”, and zero percent (n=0) answered that they “strongly disagree”.

When participants were asked to rate their level of agreement with the same statement on the

post-survey, 12% (n=3) answered that they “strongly agree”, 16% (n=4) answered that they “agree”, 32% (n=8) answered that they “neither agree nor disagree”, 36% (n=9) answered that they “disagree”, and four percent (n=1) answered that they “strongly disagree”. See Table 5 and Table 6 below for a visual representation of results for statement three on both the pre-survey and the post-survey.

**Table 5**

*Pre-survey statement three*

Q3. Please rate your level of agreement with the following statement: I don’t have enough time to screen for OUD.

	Percentage	# of respondents
Strongly agree	17%	4
Agree	17%	4
Neither agree nor disagree	29%	7
Disagree	38%	9
Strongly disagree	0%	0

**Table 6**

*Post-survey statement three*

Q3. Please rate your level of agreement with the following statement: I don’t have enough time to screen for OUD.

	Percentage	# of respondents
Strongly agree	12%	3
Agree	16%	4
Neither agree nor disagree	32%	8
Disagree	36%	9
Strongly disagree	4%	1

Pre-survey and post-survey statement four read “Patients won’t be honest about their opioid use.” On the pre-survey, 29% (n=7) answered that they “strongly agree”, 54% (n=13) answered that they “agree”, 13% (n=3) answered that they “neither agree nor disagree”, four percent (n=1) answered that they “disagree”, and zero percent (n=0) answered that they “strongly disagree”. When participants were asked to rate their level of agreement with the same statement on the post-survey, 24% (n=6) answered that they “strongly agree”, 32% (n=8) answered that they

“agree”, 24% (n=6) answered that they “neither agree nor disagree”, 20% (n=5) answered that they “disagree”, and zero percent (n=0) answered that they “strongly disagree”. See Table 7 and Table 8 below for a visual representation of results for statement four on both the pre-survey and the post-survey.

**Table 7**

*Pre-survey statement four*

Q4. Please rate your level of agreement with the following statement: Patients won’t be honest about their opioid use.

	Percentage	# of respondents
Strongly agree	29%	7
Agree	54%	13
Neither agree nor disagree	13%	3
Disagree	4%	1
Strongly disagree	0%	0

**Table 8**

*Post-survey statement four*

Q4. Please rate your level of agreement with the following statement: Patients won’t be honest about their opioid use.

	Percentage	# of respondents
Strongly agree	24%	6
Agree	32%	8
Neither agree nor disagree	24%	6
Disagree	20%	5
Strongly disagree	0%	0

Pre-survey and post-survey statement five read “I feel prepared to screen my patients for OUD/opioid misuse.” On the pre-survey, 17% (n=4) answered that they “strongly agree”, 42% (n=10) answered that they “agree”, 33% (n=8) answered that they “neither agree nor disagree”, eight percent (n=2) answered that they “disagree”, and zero percent (n=0) answered that they “strongly disagree”. When participants were asked to rate their level of agreement with the same statement on the post-survey, 12% (n=3) answered that they “strongly agree”, 32% (n=8) answered that they “agree”, 44% (n=11) answered that they “neither agree nor disagree”, 12%

(n=3) answered that they “disagree”, and zero percent (n=0) answered that they “strongly disagree”. See Table 9 and Table 10 below for a visual representation of results for statement five on both the pre-survey and the post-survey.

**Table 9**

*Pre-survey statement five*

Q5. Please rate your level of agreement with the following statement: I feel prepared to screen my patients for OUD/opioid misuse.

	Percentage	# of respondents
Strongly agree	17%	4
Agree	42%	10
Neither agree nor disagree	33%	8
Disagree	8%	2
Strongly disagree	0%	0

**Table 10**

*Post-survey statement five*

Q5. Please rate your level of agreement with the following statement: I feel prepared to screen my patients for OUD/opioid misuse.

	Percentage	# of respondents
Strongly agree	12%	3
Agree	32%	8
Neither agree nor disagree	44%	11
Disagree	12%	3
Strongly disagree	0%	0

### **Interpretation/Discussion**

The unit that this project was implemented on is primarily a stroke and cardiac unit that does not currently utilize any OUD screening tool to screen their patients for OUD. Those that suffer from heart disease and/or stroke are at increased risk for potential complications if taking opioids, prescribed or illicit, along with medications used to manage and treat heart disease (AHA, 2021). After taking the pre-survey, nurses were educated on what OUD is, why it is imperative that their patient population is screened for OUD, their role in helping to identify

OD, and information to consider when screening for OD. See Figure 5 for educational intervention handout graphic.

After the educational intervention, the percentage of nurses who believed that they could identify a patient with OD without the use of any screening tool decreased, suggesting an understanding of the necessity of a screening tool to be implemented on their unit in order to identify OD. The percentage of nurses that agree to feeling responsible to help identify patients with OD increased after participating in the educational intervention, suggesting an increased sense of responsibility for screening their patients after gaining knowledge regarding OD screening.

The percentage of nurses who believed that they do not have enough time to screen their patients for OD decreased after participation in the educational intervention, suggesting that nurses had a better understanding of how brief various OD screening tools may be and that many validated tools take less than five minutes to use. The percentage of nurses who believed that patients would not be honest with them about their opioid use if asked decreased, suggesting that they had a better understanding of the validity of OD screening tools after participation in the education intervention.

Although the percentage of nurses who answered “strongly agree” and “agree” to the statement “I feel prepared to screen my patients for OD/opioid use” decreased minimally on the post-survey, this may suggest that they simply need more information regarding OD screening and the various OD screening tools that exist. The educational intervention did not educate participants on any particular OD screening tool, and numerous nurses expressed interest in learning more about how to implement a specific tool at the bedside. This may have been represented by a decrease in the percentage of nurses who felt prepared to screen their

patients for OUD/opioid use. This unit would benefit from further OUD screening education, followed by the implementation of an OUD screening tool.

### **Conclusion**

Those In 2016, more than 11.5 million Americans admitted to the misuse of prescription opioids (CDC, 2017). Individuals with heart disease and/or history of stroke are particularly vulnerable to the effects of opioid use. The AHA advisory recommends that cardiologists, neurologists, and vascular medicine physicians utilize validated tools to screen patients for opioid misuse to refer those who screen positive for treatment (AHA, 2021). It is imperative that this population be screened for opioid use disorder so that appropriate interventions can be taken. Identifying those currently suffering from OUD, or at risk for OUD, gives providers the opportunity to address health concerns, alter treatment options, and/or offer resources for treatment of OUD. This project was guided by the theoretical framework Three-Step Model of Change created by Kurt Lewin (Burnes, 2021). The nurses on the unit where this project was implemented increased in their knowledge of OUD and OUD screening, and would benefit from further OUD screening education, particularly regarding specific OUD screening tools.



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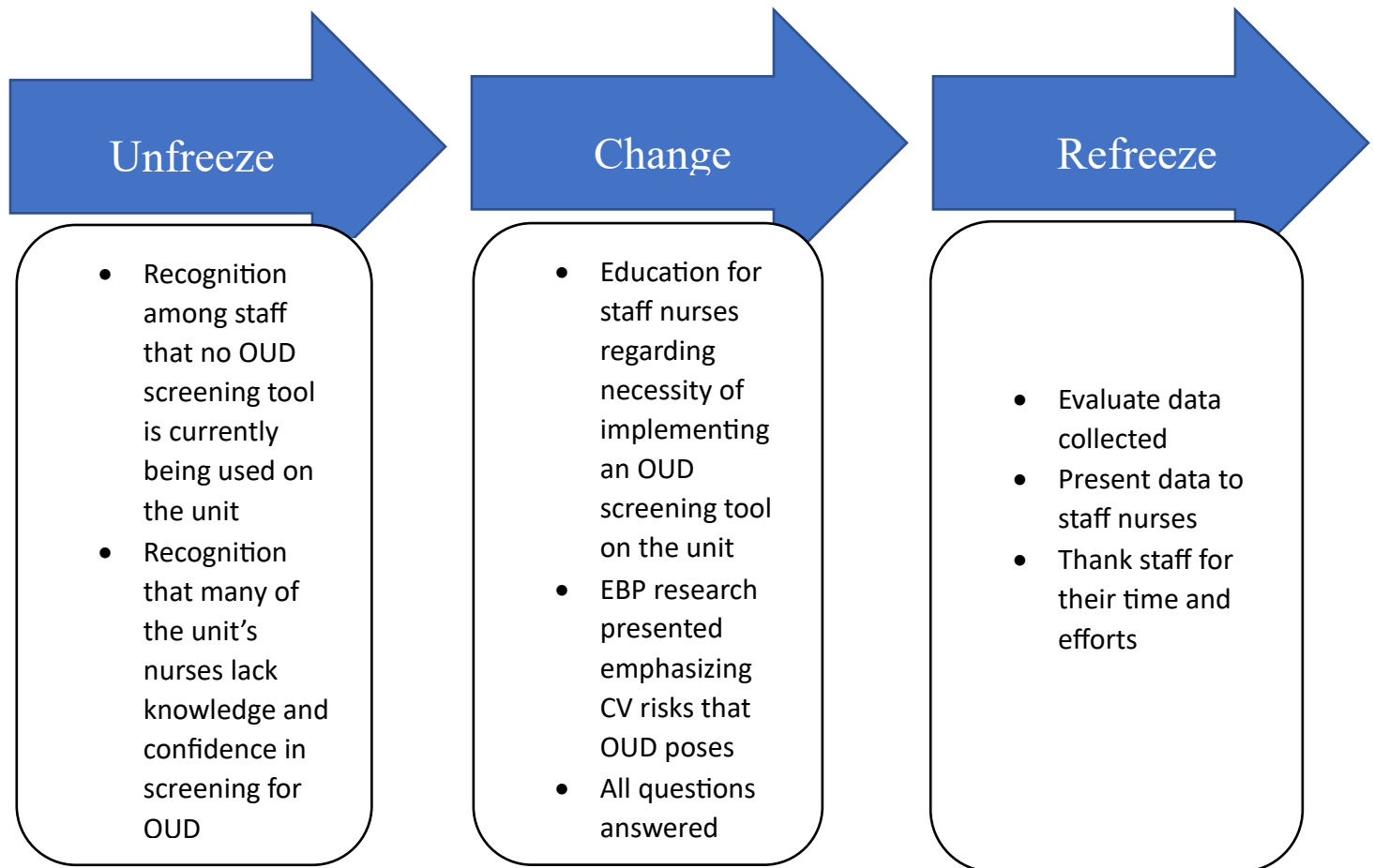
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## Figures

**Figure 1**

*Application of Lewin's Three Step Model of Change*



Note: This figure demonstrates the various stages of Lewin's Three-Step Model of Change and how they are going to be applied to this quality improvement project.

**Figure 2*****Opioid Use Disorder (OUD) Survey Informed Consent***

Project Title: **Nurse Perspectives on Patients with OUD and Screening for OUD**

**Informed Consent**

**Please read this informed consent carefully before you decide to participate in the study.**

**Consent Form Key Information:**

- Participate in two anonymous five-item online surveys
- Participate in one 20-minute face-to-face educational presentation

**Purpose of the research study:** The purpose of the study is to assess the impact of an educational intervention on nurses' confidence and perceived benefits of opioid use disorder screening among cardiovascular patients.

**What you will do in the study:** Prior to the educational presentation, you will be asked to complete an anonymous five-item online survey regarding your perspectives on patients with Opioid Use Disorder (OUD) and screening for OUD. After completing the survey, you will be asked to attend one 20-minute face-to-face educational presentation on OUD screening and the risks associated with OUD and cardiovascular disease. Educational materials will be given to you and left on the unit for reference. You will then be asked to complete the same online survey again within two weeks of the educational presentation. The online survey is secure, anonymous, and only aggregate results will be used. You may skip any question in the survey that makes you feel uncomfortable, and you may stop the survey at any time.

**Time required:** The study will require about 30-40 minutes of your time. Each survey will take an estimated 5-10 minutes, and the educational presentation will take 20 minutes of your time.

**Risks:** There are no anticipated risks in this study.

**Benefits:** the educational presentation may increase your knowledge regarding the risks associated with OUD and cardiovascular disease and may increase your preparedness for adopting an OUD screening tool on the unit.

**Confidentiality:** Both pre and post surveys will be completed online via Qualtrics Surveys. Qualtrics is secure, anonymous, and only aggregate results will be used. The information that you give in the study will be handled confidentially. Your name and other information that could be used to identify you will not be collected or linked to the data.

**Voluntary participation:** Your participation in the study is completely voluntary.

**Right to withdraw from the study:** You have the right to withdraw from the study at any time without penalty.

**How to withdraw from the study:** you may withdraw by choosing not to complete either the presurvey and/or postsurvey at any time. You may also choose to withdraw by not attending the educational presentation. Once online surveys are completed though, data collected cannot be withdrawn as it will be collected anonymously. There is no penalty for withdrawing.

**Compensation/Reimbursement:** You will receive no payment for participating in the study.

**Using data beyond this study:** data collected will not be used beyond this study.

**If you have questions about the study or need to report a study related issue please contact, contact:**

Name of Principal Investigator: Lisa Mazzocco

Title: DNP student

Department Name: The University of Alabama Capstone College of Nursing

Telephone: 310-293-0899

Email address: LNMazzocco@crimson.ua.edu

Faculty Advisor's Name: Cheryl Hines

Department Name: The University of Alabama Capstone College of Nursing

Telephone: 205-799-0035

Email address: Cheryl.b.hines@ua.edu

**If you have questions about your rights as a participant in a research study, would like to make suggestions or file complaints and concerns about the research study, please contact:**

The University of Alabama Office for Research Compliance (205)-348-8461 or toll-free at 1-877-820-3066. You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach Website at <https://research.ua.edu/compliance/irb/>. You may email the Office for Research Compliance at [rscompliance@ua.edu](mailto:rscompliance@ua.edu).

**Agreement:**

- I agree to participate in the research study described above.
- I do not agree to participate in the research study described above.

**Figure 3***Opioid Use Disorder (OUD) Survey***Nurse Perspectives on Patients with OUD and Screening for OUD**

Please rate your level of agreement with each of the following statements:

1. It is easy to identify a patient with Opioid Use Disorder (OUD) without any screening tool.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

2. I feel responsible to help identify patients with OUD.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

3. I don't have enough time to screen for OUD.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

4. Patients won't be honest about their opioid use.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

5. How prepared do you feel to screen your patients for OUD/opioid misuse?

- Very prepared
- Prepared
- Neither prepared nor unprepared
- Unprepared
- Very unprepared



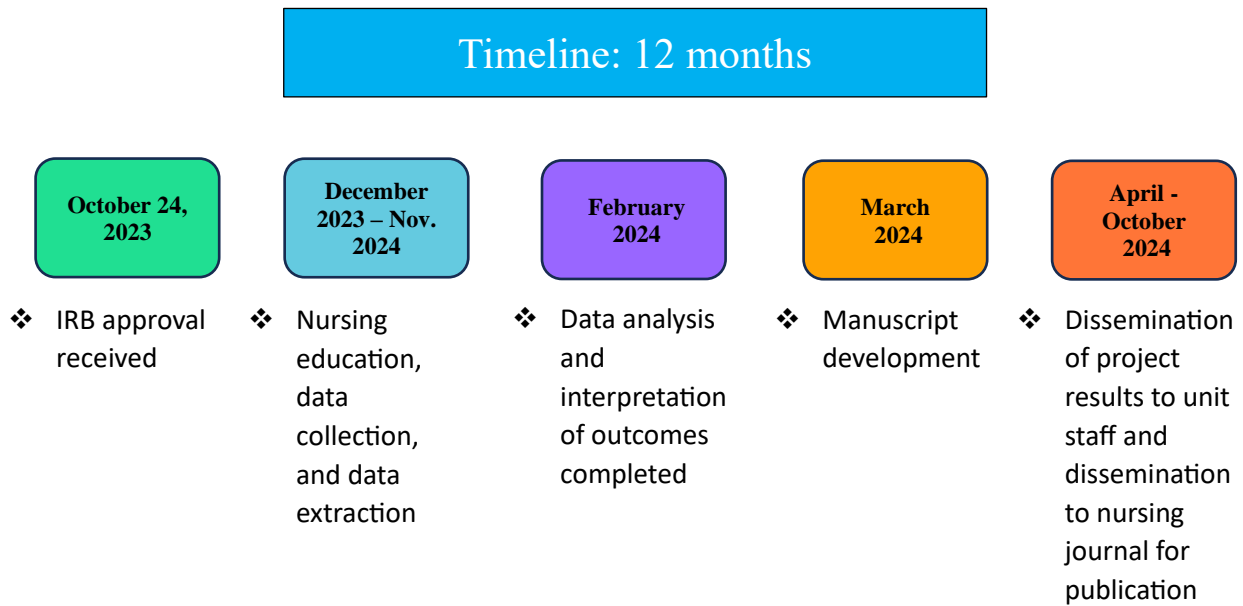
**Figure 4***Timeline for completed project*

Figure 5

Educational intervention handout



## OUD & CV Disease

**130** People die everyday

- Due to opioid overdose
- 92,000 overdose deaths in 2020, and nearly 75% involved opioids

 Why screen for OUD??

- Those with CV disease are at **increased risk** for complications if taking opioids
- Many screening tools are available

### Misconceptions about OUD

- Patients won't be honest
- It's easy to identify OUD without a screening tool
- There's no time to screen for OUD
- It's not the nurses job to screen for OUD

## Screening for OUD

### OUD Screening Tools

- Validated tools have acceptable sensitivity and specificity to identify OUD



### No time to screen?

- Many validated tools take less than 5 min. to use

Think again!



### Things to Keep in Mind

- Don't pass judgement
- Practice empathy
- Be honest



## Appendices

### Appendix 1

#### *IRB Approval Letter*



October 24, 2023

To: Lisa Mazzocco, MSN  
DNP Student  
Capstone College of Nursing  
Box 870358

From: Edward M. Shirley, MA, CIP  
Interim IRB Team Lead

Re: **Notice of Approval**  
 IRB Application #: e-Protocol 23-09-6972  
 Project Title: "Nurse Perspectives about Screening Patients with Opioid Use Disorder, an Educational Intervention"  
 Submission Type: New  
 Approval Date: October 24, 2023  
 Expiration Date: October 23, 2024  
 Funding Source: None  
 Review Category: EXEMPT  
 Approved Documents: Informed Consent, Waiver of Written Consent

Dear Ms. Mazzocco:

The University of Alabama Institutional Review Board has approved your proposed research. Therefore, your application has been approved according to 45 CFR part 46 as outlined below:

*(3)(i) Research involving benign behavioral interventions in conjunction with the collection of information from an adult subject through verbal or written responses (including data entry) or audiovisual recording if the subject prospectively agrees to the intervention and information collection and at least one of the following criteria is met: (A) The information obtained is recorded by the investigator in such a manner that the identity of the Human Subjects cannot readily be ascertained, directly or indirectly, through identifiers linked to the subjects.*

The approval for your application will lapse, as noted above. If your research will continue beyond this date, please submit the Continuing Review to the IRB as University policy requires before the lapse. Please note any modifications made in research design, methodology, or procedures must be submitted to and approved by the IRB before implementation. Please submit a final report form when the study is complete.

Please use reproductions of the stamped IRB-approved informed consent to obtain consent from your participants.

All the best with your research.