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Quality Improvement: Naloxone Prescribing Practices for Paitent with an Opioid Patient Prescriber Agreement

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,

and that any and all revisions required by

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2023

Abstract

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by

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Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

The Substance Abuse Mental Health and Human Services Administration (SAMHSA) has set guidelines for opioid prescribing practices. The core principles of SAMHSA are to prevent overdose abuse and to provide appropriate treatment for those with an opioid abuse disorder. The concern addressed by the Doctor of Nursing Practice project was the gap in physician education regarding a Best Practice Alert (BPA) in the Electronic Medical Record that appears when prescribing an opioid to a patient without cancer. The alert indicates best practice is to prescribe naloxone with the opioid prescription. The naloxone BPA education project was implemented using the exploration, preparation, implementation, and sustainment model. Pretest and posttest knowledge related to the BPA and concurrent opioid and naloxone prescribing was measured for the participating physicians ($n = 33$). The pretest showed that 21 of 33 physicians (67%) lacked knowledge related to the BPA and correct prescribing of naloxone prior to the education. After the education, 29 of 33 physicians (91%) answered all questions correctly. Of the 33 physicians, three (9%) documented that they would not change their practice based on the education because they were already following the SAMHSA guidelines. A two-tailed t test statistic comparing means, showed a significant gain in knowledge related to naloxone prescribing in conjunction with opioids ($p < .001$) among the participating physicians. This project will promote social change by increasing the number of naloxone prescriptions given to patients for treatment of opioid-related overdoses, thereby, decreasing opioid-related deaths.

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Dedication

This project is dedicated in memory of John Rison (JR) Fordyce. You lost your life too soon to the illness of drug addiction. You gave such light to this world. Your life prompted the initiation of this project. Your smile remains in my heart. Your legacy will continue through opioid abuse research. Until I see you again…

Acknowledgments

I would like to thank my family for the constant unwavering support. I could not have completed any of my life goals without your assistance and love. Thank you would never be enough.

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I want to thank the members of my project committee, preceptor, and nurse administrators. Each of you has helped me complete my degree. By assisting me with my degree, you allowed me to complete a life goal.

Finally, I would like to thank my dear sweet friend Dr. Jane Evans. Your love, support, and endless encouragement allowed me to get this far. I could never repay all that you have enabled me to accomplish.

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Section 1: Nature of the Project

Introduction

The use of opioids for the treatment of pain has been a longstanding practice. The use of opioids, though effective for pain, can lead to misuse, opioid abuse disorders, and addiction. Records show the use of opioid derivatives are found as far back as ancient Mesopotamia (History.com, 2023). Throughout history, large numbers of persons have suffered from addiction to prescribed opioids. The legal complications of opioid use date back to at least 1800 during the Opium Wars (Asia Pacific Curriculum, 2023). Opioid addiction is not a new problem in the United States either; in the 1860s, opioids were used during the Civil War to treat pain in wounded soldiers. Opioid addiction was formally acknowledged by the United States government in the Harrison Narcotics Act of 1914, which was enacted in part due to the number of soldiers who suffered from addiction to prescribed opioids (Lesser, 2021).

For a brief time in the 1970s and 1980s, providers shied away from using the potentially habit-forming drugs. However, by the 1990s, opioids were again being prescribed regularly for nonmalignant chronic pain control due to the heavy marketing of a new drugs, hydrocodone, and controlled release (CR) oxycodone. In 2020, nearly 1.5 million prescriptions were written for opioids. In that same year, 92,000 people lost their lives to opioid overdose (The Commonwealth Fund, 2022). Pennsylvania reported an average of 14 deaths per day in 2021. With a total of more than five thousand deaths related to overdoses (Pennsylvania Attorney General, 2023). Although naloxone can reverse the effects of an opioid medication overdose, the drug was only dispensed to one

out of every 69 patients that were given an opioid prescription (Centers for Disease Control [CDC}, 2021).

The new opioid drugs were marketed aggressively in the United States from 1996 through at least 2002 with primary care physicians as the target market (Van Zee, 2009). Pharmaceutical companies producing OxyContin spent $200 million dollars a year on the marketing of this drug (Van Zee, 2009). Marketing of opioid drugs is beneficial for pharmaceutical companies as evidenced by the number of prescriptions written each year. Although the number of prescriptions written varies by state and county, the rate of opioid prescriptions is high. In 2020 there were 43.3 prescriptions written per 100 people in the United States. Although the number of prescriptions is high in the United States, they are low compared to some countries (CDC, 2021). In the United States, Arkansas is second only to Alabama in the number of opioid prescriptions. In 2020, there were 75.8 prescriptions written for opioids per every one hundred people (CDC, 2021). There were 547 documented deaths from an opioid overdose in Arkansas in 2020 (Arkansas Department of Health, 2020).

In 1961, the Food and Drug Administration (FDA) approved a medication called naloxone. The initial purpose of naloxone was to assist with constipation related to the use of morphine. However, scientists learned that naloxone also blocked opioid receptors. The opioid antagonist binds with the drug receptors in the brain, thereby replacing the opioids. By doing so, the respiratory drive is restored (Recovery Research Institute, n.d.). By blocking the central nervous system receptors, the patient has a greater possibility of

surviving an opioid-related overdose (Cordant Health Solutions, 2017). In 1971, naloxone was approved to reverse opioid-related overdoses.

Italy was the first country to actively use naloxone for opioid overdoses. In 1991, the country was in the middle of a heroin epidemic. The potential for a take home dosing of naloxone began at that time but did not come to fruition until the 2000s. Providing naloxone to individuals outside of the hospital was thought to be the best way to prevent additional deaths related to opioid. Empowering opioid drug users with the lifesaving drug was expected to bring about a positive social change (Campbell, 2019).

Problem Statement

As mentioned previously, opioid use has dramatically increased since the 1990s. Accompanying this increase in use has been a staggering increase in addiction and death. This project addresses prescribing practices related to naloxone prescriptions. Per Act 651 of 2021, physicians who prescribe opioids are also to prescribe naloxone (Arkansas Senate, 2021). This is especially true for those on pain contracts who are taking opioids on a long-term basis. These patients are given a larger quantity of opioids and should, therefore, be given naloxone to reverse a potential overdose. A call for all opioid prescribing providers to heed this recommendation is needed. Each prescribing provider can help deaths from opioid overdoses by concurrent prescriptions of naloxone.

Unfortunately, there are barriers to providing naloxone. The largest barrier is the cost of the drug. In 2014, naloxone costs for insured and uninsured were $27 and $35, respectively. In 2018, the cost changed to $18 for an insured individual and $250 for an uninsured individual (Peet, 2022). Lack of education related to the indications for use is

also a barrier to the use of naloxone. Both the opioid user and medical responders agree that there is a lack of knowledge related to where to obtain naloxone and when it is appropriate for use. This limited knowledge may result in nonuse or misuse of the potentially lifesaving drug (Bessen et al., 2019). Another barrier is the inability to appropriately dispense naloxone. Pharmacies may not always be able to provide the drug to patients. This is especially true when insurance companies do not cover or only cover a minimum amount of the cost. Some pharmacists are concerned about the ability to properly educate patients related to the use of naloxone (Bessen et al., 2019). Patients have many of the same barriers as pharmacists. The cost of the drug may be more than they can afford. They are also afraid of the stigma related to needing naloxone. Additionally, patients have voiced concerns related to future filling of opioids and the judgment they may feel (Bessen et al., 2019).

The combination of barriers for patients, providers, emergency services workers, and pharmacists have been studied. There are common barriers reported by each group. Fear that administering naloxone will encourage further opioid use is one common barrier (Bessen, 2019). There is also a fear of legal repercussion for lay persons who are also using opioids. Likewise, emergency services personnel and providers have a fear of liability. These barriers can be traced back to political decisions made related to overdose victims and naloxone (Bessen, 2019).

Purpose Statement

This Doctor of Nursing Practice (DNP) project addressed the gap in naloxone prescriptions through a provider education intervention related to the need to respond to

a Best Practices Alert (BPA) on naloxone prescribing in the electronic medical record (EMR). The practice-focused question directing the project was: "Will staff education regarding the implementation of a BPA and changes to the Opioid Patient-Prescriber Agreement form improve knowledge of the need for naloxone prescription writing among pain management providers for the non-oncology population."

I worked with the pharmacy department, opioid stewardship committee, and providers who serve patients with Opioid Patient-Prescriber Agreements (OPPA). Education was provided related to the naloxone BPA. The EMR notifies the provider if there is a need for naloxone. The provider reviews the OPPA, dosage of opioid to be prescribed, and provides a prescription for naloxone. The provider also ensures that education is provided about the importance of, directions for, and cost of naloxone.

Education of the providers before the process's initiation was crucial. Providers needed the tools and information to decrease opioid-related deaths through appropriate naloxone prescribing practices. Educating the providers on the expected response to the BPA and appropriate prescribing of naloxone helped to ensure a positive project outcome. By providing appropriate education to the providers, the patients were more likely to receive accurate information. Providers were a major stakeholder and benefitted from the outcomes of the process. Patient satisfaction and safety were important outcomes of the provider's care. Education was the best way to achieve both safety and satisfaction related to opioid prescriptions (Costello, 2015).

Nature of the Doctoral Project

Significance

The social impact of the opioid epidemic is far reaching. It is estimated that the opioid epidemic cost the United States one trillion dollars in 2017. The deaths related to the opioid crisis devastate families, the economy, and the health care system (Kuehn, 2021). Decreasing the readily available stream of drugs from illegal drug dealers is only one answer to the problem. Reducing the risk of opioid overdose deaths by prescribing naloxone is an individual patient approach that can be used while community and societal interventions are being implemented. The social change addressed by the project was reduction of opioid overdose deaths, which is a population health intervention that can start within the healthcare community. Overdose death prevention programs that involve naloxone can decrease the number of mortalities from the opioid epidemic. One such approach, the Law Enforcement Naloxone Toolkit, is used to train law enforcement agents and provide them with naloxone kits to help prevent opioid-related deaths (Key, 2021). Developing a process for providing education and lifesaving medications to those who are legally prescribed opioids is a controlled process that can prevent deaths. By educating patients on the use of naloxone in the case of an accidental overdose, the providers are doing their part to effect change in their patients' lives. Acknowledging which patients are at a higher risk by following the BPA in the EMR is a quick process during the patient encounter.

Summary

The United States is in the middle of an opioid crisis. Steps that can be taken to help decrease the number of deaths should be evaluated. A process is needed to help decrease the number of these deaths (Brent & Weiss, 2022). One such process is the implementation of a BPA in the EMR. The EMR allows the facility to provide reminders through BPAs to assist in providing appropriate and safe care to patients (Bejjanki et al., 2018). The BPA reminds the provider that there is a question or concern about the patient's care. In this instance, the concern is related to the prescribing practices of opioids and naloxone.

This DNP project addressed the gap in naloxone prescriptions through a provider education intervention related to the need to respond to a BPA in the EMR. The practice-focused question directing the project was: "Will staff education on the implementation of a BPA and changes to the OPPA improve knowledge of the need for naloxone prescription writing among pain management providers for the non-oncology population." The expectation was that the combination of the BPA and the education would result in increased naloxone prescriptions to the target population of patients.

Section 2: Background and Context

Introduction

The opioid crisis cost 91,799 lives in 2020. The opioid crisis of the 1990s began with legal prescribing of opioid drugs that were marketed as non-addictive. The deaths have continued to climb with the use of illicit drugs like heroin and fentanyl (Centers for Disease Control, 2022, June). Healthcare providers are required to address pain reported by their patients. For the staff education project, the new process was implemented by the agency for all non-oncology providers with an OPPA. A pretest and posttest were administered to determine the knowledge base and educational needs of the providers related to the new BPA drop down in the EMR. The BPA reminds the provider that they need to prescribe, educate, and document that a prescription for naloxone was provided to the patient. This naloxone prescription is required for every patient given extended prescriptions for opioids or for those given an opioid prescription and a benzodiazepine. This project addressed the practice question: "Will staff education on the implementation of a BPA and changes to the OPPA improve knowledge of the need for naloxone prescription writing among pain management providers for the non-oncology population."

Concepts, Models, and Theories

The exploration, preparation, implementation, and sustainment (EPIS) framework was chosen for this project (EPIS Framework, n.d.). The EPIS framework allowed me to work within four distinct phases. These phases were intertwined. They included each stakeholder in the project. EPIS builds a bridge to allow the organization (inner) and

system (outer) context to work together. The bridge created through the process allowed specification of prevalent factors and those that are more unique to the individual phase (Aarons, n.d.).

Theoretical and conceptual models are part of what is called implementation science. Although implementation science is a fast-growing practice, it is not typically used in drug research. SAMHSA began using EPIS to create family mental health programs more than a decade ago. The process allowed organizations to recognize, examine, and employ new techniques to address the challenges that face mental health related concerns (Aarons et al., 2011).

Relevance to Nursing Practice

Over the last two decades, the United States has seen a significant rise in opioid overdose. Nurses play a fundamental role in assisting with the crisis. Because nurses are a central part of the medical care team for patients, their voice can affect change in the opioid crisis. Advanced Practice Registered Nurses (APRNs) can prescribe buprenorphine to help reduce the use of opioids and other illicit drugs. Also, APRNs can provide naloxone to patients to assist in case of overdose. By providing medications and education to opioid users, the nurse can help prevent overdoses and death. The work being done between the American Nurses Association and the government can provide a substantial decrease in the number of overdoses and overdose deaths in the United States (American Nurses Association, n.d.)

Until recently, nurses were not part of the legislation that occurred related to opioid use and abuse. Pharmacists, physicians, legislators, attorneys, and public health

officials made the decisions of what to prescribe and in what quantities. The prescribing decisions included the potentially lifesaving drug, naloxone. Because APRNs have the ability to prescribe naloxone, nurses are now a part of the social change related to the opioid crisis. Additionally, APRNs are seen frequently in rural and public health settings. They see patients who are having chronic pain and use opioid medications to relieve their pain. APRNs can educate the patients on the risks and dangers of overusing or abusing opioid medications. They also can prescribe naloxone and educate on the importance of filling the prescription and how to use it safely (Mitchell & Higgins, 2016).

In addition to the lack of appropriate education for naloxone, the problem of insurance coverage for naloxone is also an issue. The cost of naloxone varies from pharmacy to pharmacy. Some insurance companies cover the cost of the medication with a small copay. Others do not cover the drug at all. Overcoming the payment barrier is another area where the nurse can intervene. A group of nurses from University of Texas Health San Antonio's School of Nursing worked together with state and local agencies to receive funding for naloxone. To date, the group has raised 19.375 million dollars. The money is being used for doses of naloxone, public education, and nursing education. There are also programs called "train the trainer" to help teach individuals how and when to use naloxone. When the dose is used, there are resources to replace the dose. The resources are available to rehabilitation centers, schools, and individuals who fear for loved ones (Fohn, 2019).

Local Background and Context

The setting for this doctoral project was a local university hospital. The facility is state run and provides services across the state. There were approximately 45 providers who were asked to participate in the education for this project. The education was predominantly delivered in person. However, for those who were unable to attend a live session, the pretest document and educational documents were emailed for them to review. Once reviewed, they were sent a posteducation document to complete. Arkansas is a state that has a high incidence of poverty. Those who live in poverty make less than $20,000 per year and are three times more likely to struggle with addiction than those who make more than $50,000 per year (Ramsey-Code, n.d.). The providers who care for the non-oncology patients can affect change in their lives and those of their families. Appropriate education related to the use of naloxone through the BPA was one way to help affect such change.

Role of the DNP Student

The DNP graduate can apply the skills developed during their educational process to help accomplish facility goals. For this project, the DNP student provided multi-faceted education. The education was related to the need for the BPA, naloxone, and the current laws in Arkansas related to opioid prescribing to non-oncology patients. The educated began with administration of the pretest made up of 10 questions. These questions evaluate the learners current understanding of the facility and requirements along with the state laws regarding opioid prescribing, governing bodies, maximum dosages, and combinations of medications given that require a naloxone prescription,

along with what must be documented, who is responsible, and what patients are at the highest risk. The posttest covered the same set of questions.

I helped develop the BPA that alerts the provider if there is a risk of overdose related to the number of opioids being given to the patient. Additionally, if the provider prescribes both an opioid and a benzodiazepine, there is a BPA alert. The BPA notifies the provider that they need to also prescribe naloxone to the patient. I also provided the educational information approved by the facility related to opioid overdose and its prevention with concurrent naloxone prescriptions.

Once the education was presented, the posttest was administered along with a survey to determine how well the information was covered. The survey data were analyzed using descriptive statistics and the findings reported in Section 4. Additionally, after the education had been in place for 1 month, a pre-education and posteducation percentage of compliance was collected and is presented with the project findings.

Summary

This project's purpose was to develop a process for providing naloxone to patients receiving large dose or long-term opioid treatment. The focus was on patients who had an OPPA. Patients who legally obtain opioids are not protected from overdose. This group of patients can also overdose and die from a legally obtained prescription. Educating them about the use of naloxone in the case of accidental overdose can potentially save their life (National Institute on Drug Abuse, 2022).

Once the project proposal was accepted and Institutional Review Board approval obtained, the project was implemented. Upon completion of the education, I evaluated

the education project's effectiveness for improving knowledge of the naloxone prescribing process. The project's development includes elements of sustainability that are cost-effective for the facility. The EMR will provide the data needed to track adherence to the new process. As the process was implemented, feedback and updates were added as needed. Section 3 describes the methods of data collection and analysis of the evidence. In particular, the project question is presented, the sources of evidence used to support the project described, and the data collection and analysis process outlined.

Section 3: Collection and Analysis of Evidence

Introduction

The project's purpose was to improve education-related prescribing practices of naloxone for non-oncology patients on an OPPA. The gap in practice addressed with this project was the number of naloxone prescriptions provided to patients who receive long-term prescriptions for opioids. One of the risks of long-term use of opioids is dependence and opioid use disorder. There was a need for additional education related to naloxone prescribing by the providers. By educating on how the BPA works and how to follow the recommendations, the providers were more likely to prescribe naloxone to patients.

For this project, I examined the effectiveness of education related to the new BPA inside the EMR. The education included a pretest and posttest to evaluate the educational needs and how well they were met. The education included new evidence-based practice related to naloxone prescribing and patient education, how the BPA works, and how use of the BPA is monitored.

Practice-Focused Question

The practice-focused question guiding this project is: "Will providers education on the implementation of a Best Practices Advisory (BPA) and changes to the Opioid Patient-Prescriber Agreement improve knowledge of the need for naloxone prescription writing among pain management providers for the non-oncology population?"

Sources of Evidence

There were several sources of evidence used in this project. First, an in-depth literature review using the Centers for Disease Control and Prevention (CDC), Walden

University Library, MEDLINE, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and PubMed was completed. The words used for the search were *opioids*, *overdose*, *naloxone*, *Narcan*, *patient provider opioid agreement*, and *opioid death*. Peer-reviewed articles published in or after 2011 were included in the search. All articles were written in English, no articles were duplicates, and all pieces of evidence were relevant to the research project. Of the articles returned by the searches, 29 articles were selected for inclusion in the evidence review.

The review of articles produced six qualitative studies, 13 systematic reviews, seven quantitative reviews, and three narrative reviews. The reviewed articles included a mixture of pros and cons for the use of naloxone. Some authors believed the prescribing of naloxone would not assist in decreasing opioid deaths, but it would increase a false sense of security with the use of opioids (Heavy et al., 2018). Other articles supported the use of naloxone and the need for education for providers related to prescribing practices. A consistent finding was that including education at a clinical level helped to decrease the prescribing practices of the opioid. Additionally, improving the education related to the need for naloxone assisted in decreasing overdoses. Although there has been education related to bystander administration of naloxone, it has not been widely incorporated into the clinical setting (Mueller et al., 2015).

The second source of evidence came from the pretest and posttest surveys provided to the participants before and after the education. Bar charts showed the difference in knowledge scores before and after the education. Data related to the satisfaction of the providers with the content and presentation of the education was

collected through an additional survey after the education. The survey included questions related to the quality of the content and the presentation of the education. Data from the surveys was analyzed using descriptive statistics and is reported in Section 4.

Finally, de-identified data from the EMR was provided to me by my preceptor for analysis so that the number of concurrent opioid and naloxone prescriptions before and after the education could be reported. These three sources of evidence provided the rationale for the project, demonstrated the local need for the project, showed knowledge improvement through comparison of pretest/posttest data, indicated provider satisfaction with the education and content, and indicated the extent to which education promoted prescribing compliance among providers.

Analysis and Synthesis

The pretest, education, and posttest were presented in person. There were some providers who were unable to attend. For those individuals, a written version was provided. These participants received the education in an email and were given a 7-day period to review the education and return the responses.

The data for analysis of the effect of the education were gathered from pretests and posttests and evaluation surveys. The data were gathered in three pieces. The pretest confirmed that there was indeed a need for additional education. The posttest evaluated the effectiveness of the education to increase knowledge, and evaluation of the education presentation helped me understand if there need to be changes related to the BPA and naloxone prescribing process to improve compliance. These data can also guide efforts to improve future education. The analysis was based on the EPIS model. The analysis

combined the process components of the educational plan. It also included the outcomes of the educational plan (CDC, n.d.).

Following the EPIS model, the exploration phase was completed by the time the education occurred. However, the knowledge deficit was validated by the pretest. The preparation phase was followed by preparing the pretest and posttest, education information, BPA, and posteducation evaluation. The implementation phase followed the education. The information provided during the training was implemented and evaluated by a de-identified analysis of the naloxone prescriptions written before and after the education. These data were provided by the preceptor so that I was blinded to the provider and patient. The sustainability phase will continue as compliance will be monitored by the facility.

Summary

The results of this project showed whether an educational program led to an increase in naloxone prescriptions being provided to patients. Educating providers on how to use the BPA to prescribe naloxone appropriately and educate patients who have an OPPA was needed. The numbers of naloxone doses provided in comparison to the number of opioids prescribed showed the need for additional training. The development of an effective process to reduce opioid overdose in non-oncology patients who have an OPPA is expected to improve patient outcomes and future practice standards (Chieh et al., 2022).

Section 4: Findings and Recommendations

Introduction

Opioid abuse and misuse continue to rise in the United States. Along with the increase of opioid usage is an increase in opioid deaths (Brent & Weiss, 2022). In 2021, changes were made to the laws relating to opioid prescribing in Arkansas. These laws included the requirement for naloxone to be prescribed if certain standards were met. These standards included all patients on pain contracts, those who receive greater than or equal to 50 MME per day, or anyone receiving opioids in conjunction with benzodiazepines. Additionally, anyone with a known previous overdose must be prescribed naloxone (Arkansas Senate, 2021).

An educational gap was identified related to opioid prescribing practices and the use of naloxone. The purpose of this DNP project was to close the identified educational gap. The practice question addressed within this project was: "Will staff education on the implementation of a BPA and changes to the OPPA improve knowledge of the need for naloxone prescription writing among pain management providers for the non-oncology population."

Data were compiled using the CDC, peer reviewed scholarly articles, and SAMHSA to show the need for additional education related to naloxone use with high-risk patients. These data were used to create an educational plan. The education was based on a new best practice alert, adherence, and consequences for lack of compliance. A lunch and learn education was held that included a pretest, an educational section, a posttest, and an evaluation of the education.

Findings and Implications

Prescribing providers showed interest in providing safer care related to opioid-related illnesses and deaths. Thirty-three opioid prescribing providers were present during the lunch and learn. Pretest and posttest data were gathered, compiled, and analyzed to compare knowledge of the naloxone prescribing best practices. After the pretest and education each question was reviewed as a group. The providers were given an opportunity to share and question any part of the presentation. Once the educational session was over, the prescribing providers were given the posttest and an evaluation form to complete and return. All pretest and posttest surveys and evaluations were anonymous. No record of who was in attendance was gathered by me.

A lack of knowledge related to opioid prescribing practices and the use of naloxone was evident on the pretest for some of the providers. In particular, the results of the pretest showed a lack of knowledge related to naloxone prescribing in conjunction with opioids. Documentation related to not prescribing naloxone was the question most often answered incorrectly with nine out of 33 providers (27%) choosing the incorrect answer. Additionally, the amount of MME that can be prescribed without providing a naloxone prescription was answered incorrectly. Several of the prescribing providers stated they were unaware that the Opioid Stewardship Committee monitored the dosage.

The results of this educational session, comparing before and after education scores using a two-tailed *t* test statistic, showed a significant gain in knowledge related to naloxone prescribing in conjunction with opioids ($p < .001$). Twenty-one of the 33 providers (67%) answered all 10 of the questions correctly on the pretest. Twenty-nine

of the 33 providers (91%) answered all 10 of the questions correctly on the posttest. Three providers (9%) stated they would not change their practice based on the education provided. They explained that they already followed best practices for naloxone prescribing. Participants' inclusion of questions and comments on their evaluation of the presentation provided feedback for future education presentations.

Recommendations

There are approximately 1000 medical doctors (MD) at the participating facility. As an MD each of these providers had the ability to prescribe opioids in the state of Arkansas if they have appropriate Drug Enforcement Agency (DEA) documentation (Arkansas Medical Society, 2023). Along with the education and licensure requirements of the DEA, it is the recommendation of this DNP student that each prescribing provider complete the education provided through this project. The recommendation would be that all prescribing providers, including residents and fellows, complete the education, provided through the DNP student, once and then maintain their yearly DEA education.

Strengths and Limitations of the Project

With any project, strengths and weaknesses can be found and potentially assist in progression of the project in a timely manner. The strengths and weaknesses of this project have been evaluated using the strengths, weaknesses, opportunities, and threats (SWOT) analysis. By using the SWOT analysis there may be additional factors found that can hamper or support the projects that were initially missed (Everitt, 2022).

One of the leading strengths of this project was the amount of time it takes for completion. There was a total of about 30 minutes required to complete the entire

process. The provider can complete this during a lunch and learn. Additionally, the data can be provided via email and returned to the educator for evaluation. Another benefit of this project is that patient safety is at the forefront. Any step that can be taken to benefit a patient is a strength.

Weaknesses also play a part in the growth of projects. By learning what the weaknesses are during the development of the project, the barriers can be removed prior to implementation (Everitt, 2022). One of the weaknesses of this project was the number of participants. Although there were 33 providers who can have influence in the organization, there are many more providers who need the same education. There was also a lack of communication related to when the educational presentation would be held. This was overcome, but it possibly led to the lower number of participants.

Opportunities can be found in weaknesses. There are opportunities to grow this educational project through those who participated. Additionally, by working with the Opioid Stewardship Committee, there can be opportunities to present this education to all new prescribing providers continually. The continuation of the education can be beneficial in overall compliance with the mandated BPA.

Not all projects are sustainable nor are they effective. The threats that can determine if this project is sustainable lie within the organization and the Opioid Stewardship Committees willingness to continue the education. It is my belief that this program can continue to benefit the facility if it is maintained.

Section 5: Dissemination Plan

Analysis of Self

Even good projects will die if they are not circulated properly. The dissemination of the plan to educate prescribing providers related to the use of naloxone is vital for its success and sustainability. Working within an academic facility with existing providers, leaders, administrators, and the Opioid Stewardship Committee will ensure the longevity of the program. The education can be built into the onboarding process for new prescribing providers. It can continue to be presented as lunch and learns or even as email education. Each of these processes can disseminate the much-needed education related to naloxone prescribing practices.

As a nurse, nurse manager, opioid stewardship committee member, and loved one of someone lost to an overdose, there is hope for a decrease in opioid related deaths due to this project. Continuing to work within the nursing community allows me the ability to help this project maintain, grow, and thrive. Having a passion for the wellbeing of those with opioid abuse and misuse disorders assists in the desire to see this project flourish.

The journey through this project has been insightful and painful. Recounting the loss of loved ones, reading and hearing stories of others who have had losses, and seeing the statistics have all made each moment spent meaningful. As the use of opioids both legal and illegal grows, the prescribing practice of naloxone becomes more important.

As this stage of the project closes, there is a newfound hope. Seeing the buy-in and concern of the providers who received education made the work worthwhile. The

journey will most certainly have barriers, dips, and troubles. However, if one life is saved, one parent gets to see their child, or one child gets to see their parent it has all been worth it.

Summary

In the early 1990s the United States began to see an increase in the use of opioids. The use of prescription opioids has been increasing since this time. In addition to the increase in the prescribing of opioids there has been an increase in opioid related deaths (The Commonwealth Fund, 2021). The gap in care this DNP project addressed was the low use of naloxone prescriptions in the facility. Through a provider education intervention related to the need to respond to a Best Practices Alert (BPA) on naloxone prescribing in the electronic medical record (EMR), there was a beginning to address this practice gap. The practice-focused question directing the project was: "Will staff education regarding the implementation of a BPA and changes to the Opioid Patient-Prescriber Agreement form improve knowledge of the need for naloxone prescription writing among pain management providers for the non-oncology population." By educating opioid prescribing providers on the need for naloxone in specified patients, the DNP student is making a social change. The providers have the knowledge to safely prescribe opioids in conjunction with naloxone to decrease opioid overdoses and overdose deaths.

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Appendix

t-Test: Paired Two Sample for Means

	7	10
Mean	8.78125	9.84375
Variance	0.563508065	0.200604839
Observations	33	33
Pearson Correlation	0.18289313	
Hypothesized Mean Difference	0	
df	31	
t Stat	-7.506391407	
P(T<=t) one-tail	9.26373E-09	
t Critical one-tail	1.695518783	
P(T<=t) two-tail	1.85275E-08	
t Critical two-tail	2.039513446	