Spring 5-14-2022

Reducing the Stigma Associated with Maternal Substance use Disorder in a Rural Midwest Hospital and Clinic

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REDUCING THE STIGMA ASSOCIATED WITH MATERNAL SUBSTANCE USE DISORDER IN A RURAL MIDWEST HOSPITAL AND CLINIC

A Scholarly Project Submitted to the Graduate School
in Partial Fulfillment of the Requirements
for the Degree of
Doctor of Nursing Practice

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May 2022

REDUCING THE STIGMA
ASSOCIATED WITH MATERNAL SUBSTANCE USE DISORDER
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An Abstract of the Scholarly Project by
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The purpose of this study was to determine if an educational resource provided to maternal healthcare providers, more specifically, providers in a Midwest regional hospital and clinic, would reduce the stigma associated with maternal substance use disorder (SUD). This project also aimed at increasing provider knowledge on the disease process of maternal SUD and current treatment guidelines.

A quantitative research design was used for this study. There was no control group; therefore, it is a quasi-experimental study. Qualtrics were utilized to design a pre-test and post-test. An email including a brief description of the study, an invitation to participate, and a link to the pre-test were sent to Coffeyville Regional Medical Center Women's Health Unit and Women's Health Clinic employees. This included nurses, obstetric gynecological physicians, a pediatrician, a family practice physician, and a nurse practitioner. Following the pre-test, an electronic handout was provided followed by a post-test. The pre-test and post-test results were compared to determine if the educational handout decreased the healthcare providers' stigma associated with maternal substance use disorder and increased their knowledge of the disease.

In conclusion, the study found that providing an educational resource decreased provider perceived stigma and increased their overall knowledge of maternal SUD. The study also revealed the provider's desire to become role models and a need for increased education on maternal SUD. Providers should be encouraged to stay abreast on the topic,

including maternal SUD evidence-based treatment guidelines, and the disease process. Healthcare providers should also continue to evaluate personal bias related to this topic.

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CHAPTER I

Introduction

Substance Use Disorder (SUD) is a nationwide problem that includes the opioid epidemic. On October 26, 2017, Acting Secretary of Health and Human Services Eric D. Hargan signed a letter determining that a public health emergency exists nationwide due to the consequences of the opioid crisis (United States Department of Health and Human Services, 2017). From May 2017-May 2018, over 68,000 Americans died from drug overdose (National Center for Health Statistics, 2019). Smyth et al. (2010) reported that there was a 91% chance of relapse among those with SUD. Everyone is affected by this disease in one way or another.

Women of childbearing age are not excluded from this epidemic. As stated by Haight et al. (2018) "Opioid use disorder [in pregnant women] more than quadrupled during 1999-2014 (from 1.5 per 1,000 delivery hospitalizations to 6.5)" (p. 845). Stigma perceived both internally and externally by this population reduces compliance and further complicates their healthcare. Studies have shown that by reducing the stigma of this disease perceived by healthcare providers, SUD patients will have improved healthcare outcomes.

Description of the Problem

Maternal SUD refers to substance use during pregnancy and/or shortly after delivery. Pregnant women with SUD are judged more harshly by family members, healthcare providers, and the public when compared to the general population (Howard, 2015). Ober et al. (2017) reported stigma as a cause for never receiving treatment. "Providers' deeply held cultural beliefs and stigma commonly result in punitive responses toward prescription opioid-dependent pregnant women" (Valez & Jansson, 2008, p. 3). Mothers are at an increased risk for adverse effects as they are not only responsible for themselves but also for the vulnerable population of children. Many are aware but may lack the understanding, resources, or support needed to help themselves or others. It is a chronic, lifelong medical condition, with the likelihood of relapse.

Significance to Nursing

By educating providers on SUD and the methods to reduce the stigma, they will be more confident and more likely to take role model positions amongst colleagues. Cross-Sudworth et al. (2015) stated, "Confidence appears to be directly linked to increased knowledge and training as well as ongoing support" (p. 20). Ober et al. (2017) reported on the lack of leadership and confidence among providers in their ability to treat SUD. There are not enough supportive providers encouraging other providers to treat SUD. There is a lack of physician role models (Ober et al., 2017).

Reducing the stigma and thereby improving maternal health will also reduce healthcare costs. Maternal women with opioid use disorder at the time of delivery continue to rise. Neonatal abstinence syndrome in Medicaid-covered infants increased more than fivefold, from 2.8 per 1000 births in 2004 to 14.4 per 1000 births in 2014

(Winkelman et al., 2018). As healthcare costs continue to rise, providers must be proactive about implementing preventive measures. Encouraging an open, honest patient-provider relationship will result in increased patient compliance and improve overall health outcomes.

Specific Aims and Purpose

The purpose of this scholarly project was to educate providers on the importance of reducing the stigma associated with maternal SUD, more specifically, the stigma perceived by healthcare providers in a Midwest regional hospital and clinic. This will result in increased patient-provider trust, patient compliance, and increased positive healthcare outcomes. Improving the mother's overall health and state of mind will help restore family dynamics, which will also improve the health and wellbeing of the children that are under the mother's care.

Increasing healthcare providers' knowledge of SUD and the effects that stigma has on the health of these women can better prepare them to treat this population. Evaluation of empathy and tools to decrease the stigma, such as education, positive thinking, and imparity, will assist providers in being more approachable, confident, and understanding with their patients. Patients that have a trusting relationship with their provider are more likely to follow through with treatment plans and seek additional assistance when needed.

Theoretical Framework

The theoretical framework used to guide this project is titled "Modeling and Role Modeling" by Helen Erickson, Evelyn Tomlin, and Mary Swain (as cited in Petiprin, 2016). This theory is about accepting the patient unconditionally, understanding how the

patient views their environment, and modeling by healthcare providers by providing care, acceptance, and comfort to the patient. This theory will assist healthcare providers by helping them gain an additional understanding of the lived experiences of patients suffering from this difficult-to-treat disease.

The main assumptions in the theory include the belief in holism, Maslow's Hierarchy of Needs, and that all people have a drive for acceptance (Petiprin, 2016). The assumption of holism conveys that people are more than just what they have going on; they are individuals with a conscience. Women suffering from SUD are not simply “drug addicts” or “users”; they are mothers and daughters that were once infants themselves. They are like others just trying to fit in and raise their children, sometimes while struggling with relationships and to make ends meet.

Maslow's Hierarchy of Needs is a theory that states that people require their basic needs met before they can work on anything else. The patients may understand and agree that they need to discontinue the substance use, but they may lack the energy or focus to do so. They may be diverting all their attention to making sure they have a place to stay for the night or focused on an abusive relationship. A complete family assessment is needed to treat this population.

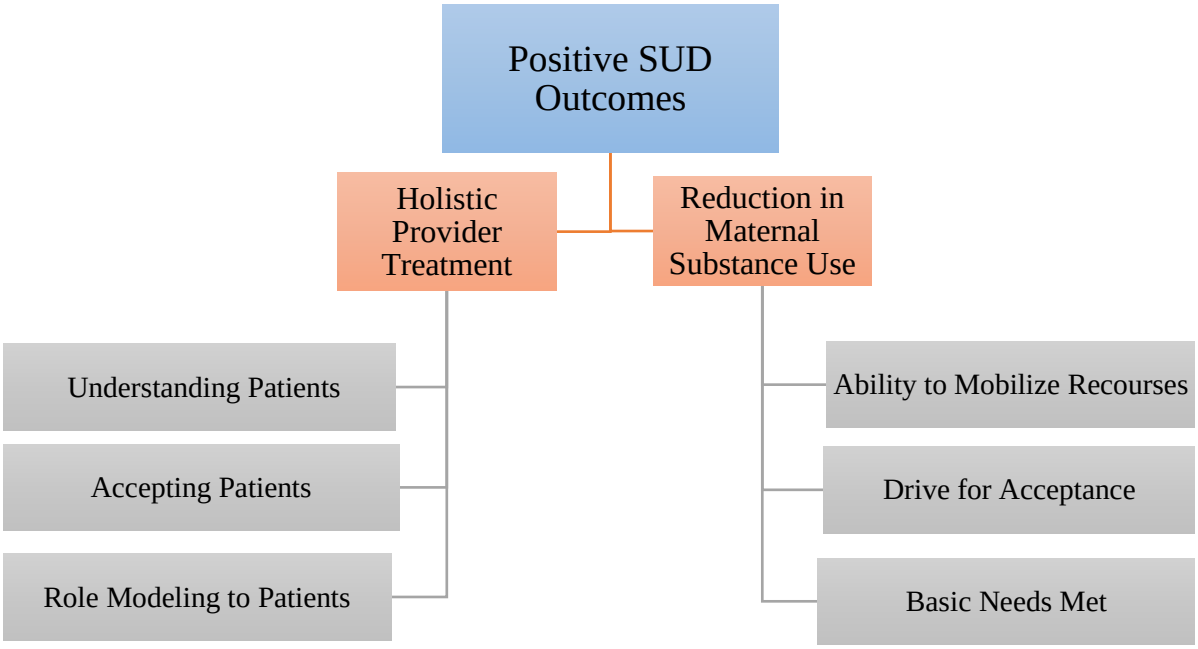
The assumption that people have a drive for acceptance is related specifically to this theory, meaning people want independence and freedom. The theory implies people do not want to be dependent; they want to be self-sufficient and able to take care of themselves and their families. The culture demands people to be self-focused instead of group oriented. This theory speaks of the importance of acceptance into the culture as well as working as a group and supporting one another. The goal is to assist this

population to be independent while also utilizing group and community resources. Petiprin (2016) lists the theoretical propositions utilized by this theory as the following: an individual's ability to deal with stress related to mobilizing resources; the ability to mobilize resources is related to their deficits, and that attachment is related to feelings of worthiness. According to these theoretical propositions, one overwhelmed with stress would not be capable of mobilizing resources, one without supporting resources will be at high risk for adverse outcomes, and one that does not form attachments can suffer from worthlessness.

By attempting to perceive the patient's situations through their own eyes, while simultaneously encouraging the patients to take note of their environment, the provider will be more successful in collaborating an effective treatment plan with the patient. This act of role modeling is theorized to enable the provider an additional understanding of the patients' needs to better assist them to overcome this terrible disease. By attempting to view the patient's situation through their own eyes, the providers will be more prepared to recommend requests and suggestions of community resources that would work in the patients' favor. The key variables for the model are shown in Figure 1 below.

Figure 1

Modeling and Role Modeling to Increase Positive Outcomes of SUD



Project Questions

The questions for this project will be the following:

- What is the healthcare provider's self-reported level of knowledge related to maternal substance use disorder?
- What is the healthcare providers' level of self-perceived stigma toward patients with maternal substance use disorder before an educational intervention?
- Is there a difference in healthcare providers' self-perceived stigma by their years of experience in healthcare?
- Is there a difference in healthcare providers' self-perceived stigma according to past experiences with family or friends with substance use disorder?
- What is the healthcare providers' level of self-perceived stigma toward patients with maternal substance use disorder after an educational intervention?

- Does the healthcare provider plan to change their views of maternal substance use disorder after the educational intervention?
- What are the healthcare providers' intentions toward role modeling regarding the treatment of maternal substance use disorder after the educational intervention?

Definition of Key Terms

These definitions will be the focus of this project:

Empathy- De Waal et al. (as cited in Segal & Wagaman, 2017) described empathy as "the bond that connects people on individual levels, facilitates social agreements, and promotes democratic decision making" (p. 204). Segal and Wagaman (2017) described empathy as "the ability to understand the behaviors of others and the meanings of those behaviors" (p. 204).

Healthcare provider- Bricker & Eckler (n.d.) described a healthcare provider as "a provider of medical or health services and any other person or organization who furnishes, bills, or is paid for health care in the normal course of business" (para. 1). Examples of this would include doctors, nurses, nurse practitioners, and certified nurse aids.

Maternal- is defined as an adjective meaning "relating to a mother, especially during pregnancy or shortly after childbirth" (Lexico, n.d., para. 1).

Stigma- Goffman (as cited in Howard, 2015) described stigma as a social construction involving negative differences that devalue and dehumanize a person. Howard (2015) stated "the shame one experiences from being stigmatized necessitates some way to manage perceptions of both internal and external stigma" (p. 422). These meanings will be focused on for this project.

Substance Use Disorder- substance use disorder (SUD) is defined as "when a person's use of alcohol or another substance (drug) leads to health issues or problems at work, school, or home" (MedlinePlus, 2019, para.1). The general term 'drug' is defined as "any substance, stimulating or depressing, that can be habituating or addictive, especially a narcotic" (American Heritage Publishing Company, n.d., para. 1).

Logic Model

The logic model for this project was designed using inputs, outputs, assumptions, and external factors. A visual of the map can be seen in Figure 2 below. An ample amount of time will be required to do research, plan the project, and implement the teaching intervention. Computers will be utilized to store, design, and provide surveys and electronic handouts. The facility email and computers will be needed to implement the surveys and teaching intervention. Funding will not be needed for this project.

Assumptions include a window of opportunity, healthcare provider truthfulness, and the readiness to change. External factors include provider bias, the rural area, and access to the survey. As stated previously in this paper, there is currently an opioid epidemic that presents a chance for teaching the reduced stigma intervention to providers. Pregnant women expect to be questioned at prenatal visits about their social life and health; this, according to Cross-Sudworth et al. (2015), creates a "window of opportunity." This project is taking place in a rural area where "everyone knows everyone"; the providers will be encouraged to be truthful on the surveys. They will be reminded that the surveys are for learning purposes only and will be confidential including no names or tracking methods. The final assumption made for this project includes the perception of change regarding the providers and the patients. The providers

will be advised to do a self-evaluation regarding their social issues, which may hinder their relationships with this population. The patients are assumed to be perceptive to change during this time in their lives where there is a change in family dynamics.

The outcomes of the project (Figure 3 below) include short-term, intermediate, and long-term goals. The short-term goals lead to long-term goals, which include increased provider awareness of SUD stigma, increased patient compliance, and provider-patient trust, which will result in provider role models of reducing SUD stigma, reduced neonatal abstinence syndrome, and reduced number of children entering public-provided care. Increased awareness of self-needs will result in increased awareness of self-worth and increased family dynamics.

Figure 2

Reducing the Stigma Associated with Maternal SUD

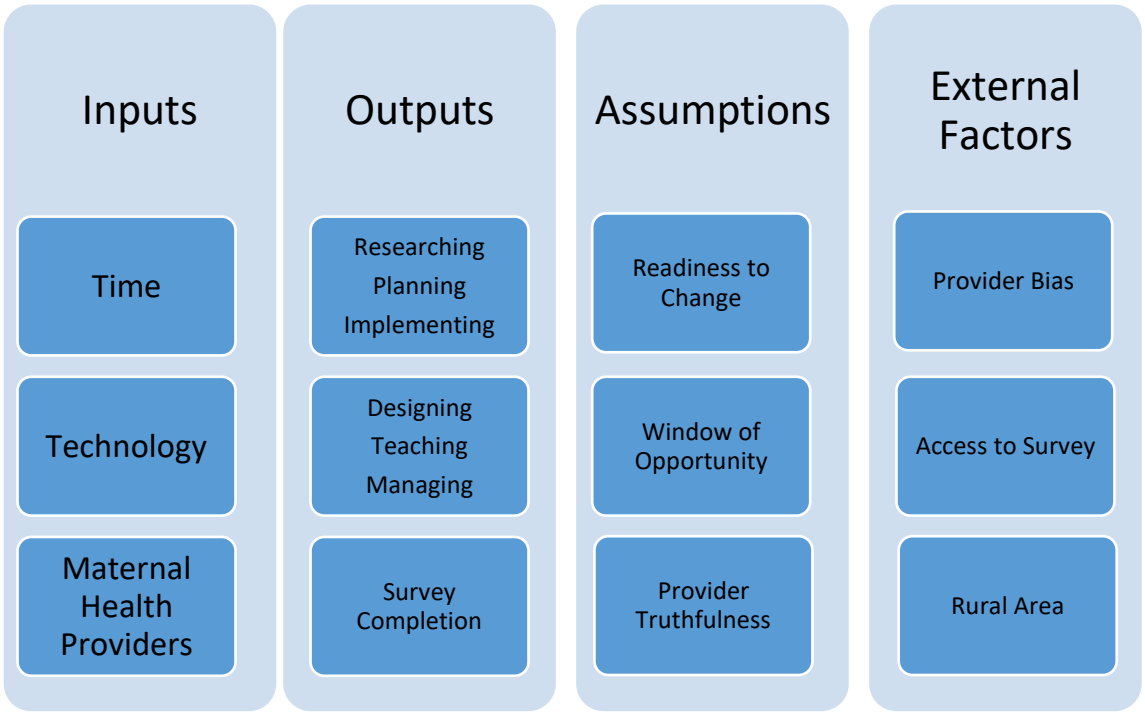


Table 1

Study Outcomes

OUTCOMES		
Short-term	Intermediate	Long-term
Increased Provider Awareness of SUD Stigma	Reduced Provider Perceived Stigma	Provider Role Models of Reducing SUD Stigma
Increased Patient Compliance	Reduced Positive Drug Screens	Reduced Neonatal Abstinence Syndrome
Increased Patient-Provider Trust.	Increased Enrollment in Community Services	Reduced Number of Children Entering into Public Provided Care
Increased Self-Awareness of Needs	Increased Awareness of Self Worth	Increased Family Dynamics

Summary

Maternal substance use disorder (SUD) is an ongoing chronic disease that affects all families and communities. Rural communities are at an additional disadvantage with limited resources, increased stigma, and fewer outreach programs. Families are often pulled between supporting their family members and seeking additional resources for help, and often feel judged themselves while doing so.

By reducing the stigma associated with maternal SUD beginning with health care providers, these patients will be more apt to seek help, be compliant with the treatment plan, and have positive outcomes. It is hypothesized that by improving the health of this population, the family dynamics will also improve, thereby reducing the risk factor of future generations sharing the same disease. A teaching intervention aimed at reducing the stigma associated with SUD, implemented to maternal health care providers, will assist with this goal.

CHAPTER II

Literature Review

The current literature was reviewed to gain a better understanding of the stigma associated with maternal SUD and the methods to reduce it. Relevant articles were obtained from the PubMed database and the Cumulative Index to Nursing and Allied Health Literature (CINAHL). Search phrases included maternal substance use disorder, provider perceptions, provider education, health-related stigma, and methods to reduce it, SUD noncompliance, and the "window of opportunity." Articles were limited to the peer-reviewed, English language, and published within the last seven years. Two benchmark articles were also utilized. The search produced thirty-two relevant articles. Examination of the articles revealed the following themes: *Maternal SUD barriers to treatment, provider barriers to treatment, opportunities for treatment of Maternal SUD, the benefits of reducing the stigma surrounding maternal SUD, and the methods to reduce the stigma and educate providers.*

Maternal SUD Barriers to Treatment

When treatment is not utilized, barriers, or reasons for not utilizing the treatment are researched. Barriers to healthcare can include physical, mental, and/or financial reasons. Once these barriers are identified, methods to overcome them can be

implemented to increase the utilization of treatments. Maternal SUD barriers found in the research included stigma, lack of resources, and judicial involvement.

Stigma

There are many different factors related to maternal SUD stigma, including causing agents and effects. Stigmas can be internal and/or external. They can be perceived by family members, the community, or providers. Fragassi and Bora (2018) found that the under-reporting of maternal SUD is thought to be caused by the fears of social stigmatization. Stigma has continued even though there is now a better understanding of SUD and the disease process (Fragassi & Bora, 2018). Van Scoyoc et al. (2016) stated "stigmas include the belief that individuals with addiction are not capable of making decisions" (p. 77). This can reduce a patient's autonomy and leave them fighting for control.

Stringer and Baker (2018) found that "mothers experience the most stigma compared with father, nonmothers, or nonfathers" (p. 16). This can result in mothers being more defensive and less likely to seek resources for themselves and their children. Stigma (related to treatment from providers) due to their beliefs and bias from society was found to induce internal stigma from shame (Howard, 2015). Walter et al. (2017) discussed the importance of "countering stigmatization and fostering compassion" (p. 1714). Wigg et al. (2017) stated "social connection with others were described as challenging for some mothers because of negative and traumatic childhood experiences" and that they "don't have the confidence in people" (p. 1249). Cockroft et al. (2019) found an overall distrust in the healthcare system due to stigma and in part due to the healthcare's role in prescribing the opioids that some patients have become dependent on.

Resources

Traube et al. (2015) reported on the need for childcare support to increase compliance with treatment. Mothers are not able to make appointments due to having unreliable supervision for their children and/or a lack of transportation. Wigg et al. (2017) stated substance-dependent women with substance abuse in their family not only "needed support to stay abstinent" but also "needed to distance themselves from their social network and family" (p. 1247). This provides a whole new and unfamiliar world for the women. By better understanding the needs of support for this population, providers will be more successful in implementing the help and safety needed to achieve health goals (Wigg et al., 2017). Participants in Wigg et al. (2017) stated feelings of "growing together with my child" when being discharged with their child following successful treatment (p. 1249).

Fragassi and Bora (2018) stated that many women with SUD experience homelessness. Now is not the time to turn a blind eye. Ignoring the problem will not make it better. Communities must work together to support this vulnerable population. Sahker et al. (2015) found from their research that most pregnant SUD patients seek treatment, not from self-referral but other social support groups, including religious organizations, government agencies, recovery groups, and social welfare agencies.

Gopman (2014) reports on the bravery of women with maternal SUD to seek treatment, possibly due to their neglected childhoods. Gopman (2014) lists this as being one of the first steps to "improving their health and investing in the health of their children and families" (p. 221).

Milligan et al. (2016) revealed that women reported being able to "break down emotional barriers, take emotional risks and begin to build trust in the relationship" (p. 257). Women reported the counselors adapted treatment to meet their cognitive and learning needs, through addressing risk factors, providing cues, and helping women internalize these skills (Milligan et al., 2016). These findings will be utilized to encourage social support recommendations by maternal health care providers.

Judicial Involvement

Women can be reluctant to disclose social circumstances and hide SUD from their providers to avoid losing parental rights. Study participants referred to "the therapeutic path to failure" to describe the results of the punitive measures used by treatment centers (Mora-Rios et al., 2017, p. 602). The research has found that by reducing the threats and reputation of automatically severing parental rights, women will be more likely to have an open, honest relationship with their providers. A collaborative approach to treatment without criminal sanctions is the best way to help this population (Committee on Obstetric Practice, 2017).

Providers have an obligation to advocate for their patients and encourage long-term follow-up and "discourage the separation of parents from their children" (Committee on Obstetric Practice, 2017, p.11). Research has shown that by keeping the dyad together during treatment, the development of the infant, as well as the recovery of the mother, can be beneficial (Suchman & DeCoste, 2018). Van Scoyoc et al. (2016) found that women want to seek treatment but ultimately "take matters into their own hands" to avoid child welfare involvement or the justice system (p. 76). This becomes a barrier to care and delays treatment.

Provider Barriers to Treatment

Providers can encounter barriers to implementing healthcare. These barriers can include availability, understanding, and interpretation. The research found time, the complexity of the disease, lack of education, and lack of role models/confidence as barriers to treatment by providers.

Time

The research found repeated reports of time being the reason patients were not questioned and directed about SUD. Providers did not feel they had adequate time to establish the right environment and mood for the personal discussion about social behaviors. Cross-Sudworth et al. (2015) found the report of not enough time and quoted providers as "generally, not enough time allocated for appointments as consultations invariably take longer…. Need more time to enable a more thorough and satisfying consultation for women and midwives" (p. 17). Howard (2015) discussed the lack of time to assist opioid-dependent pregnant women and how prenatal social workers can provide ongoing mutual support to this population. One study revealed that women felt written material was given in place of spending time with them (Ebert et al., 2014). The same study also found that during verbal communication, patients were not given the time to ask questions (Ebert et al., 2014).

Complexity of Disease

Maternal SUD is a complex disease in which the practitioner is not only responsible for one life but two, requiring a multidisciplinary approach. Gopman (2014) reports on the difficulty screening for maternal SUD. Mandated urine drug screens often miss sporadic drug use (Gopman, 2014). Women will wait for negative UA results before

scheduling prenatal appointments or skip them all together. Due to fears, women may not seek treatment until pregnancy complications occur or late into the pregnancy (Gopman, 2014).

The disease can be co-occurring with mental illness and/or trauma and followed by non-compliance (Lee King et al., 2014). This can leave obstetricians reluctant to treat. However, Pitt et al. (2018) report on the complexity of the disease with high relapse and recurrence rates. This complex disorder calls for an increase in social support; be it from health care facilities, family members, social network groups, church groups, or court-mandated meetings, the evidence is substantial that support is necessary for success.

Lack of Education

The research found a lack of provider education as a barrier to addressing and treating maternal SUD. More training is needed to understand addiction, improve evidence-based treatment, and chronic pain and opioid prescribing. Press et al. (2016) found that patients need their providers to understand their addiction. When providers are educated on the disease, they are more comfortable with addressing the medical and physiologic aspects of the disease (Press et al., 2016).

Williams et al. (2020) found that provider education should focus on uniformity, including evidence-based treatment for maternal SUD. It is well known that evidence-based treatment improves prevention, treatment, and recovery. There is a misunderstanding of the pharmacotherapy and indications for drug testing in this population (Williams et al., 2020). Cushman et al. (2017) found that providers want to know how to safely prescribe alternatives to opioids. Providers were found to be torn between treating their patients and specific government regulations (Cushman et al.,

2017). Lee King et al. (2015) reported the need for clear and simple information including protocols to improve treatment. Providers are less confident and less likely to treat maternal SUD when they are lacking the required training to address this population.

Lack of Role Models/Confidence

Critchfield et al. (2018) stated, "Ob/gyns are on the front lines of this epidemic and have a responsibility to recognize, treat, refer and advocate for the pregnant women with opioid use disorder" (p. 10). These providers can make a difference and be role models for their colleagues to help combat this epidemic. Mora-Rios et al. (2017) wrote on the stigma related to medical staff as being due to the lack of interest and commitment towards addiction, as well as the "failure of health care personnel to deal with their own emotional problems" (p. 598). This results in a lack of provider role models and leaders in the treatment of SUD. Mora-Rios et al. (2017) reported on common practices of lack of administrative support, including from the bureaucracy, as well as the stigma received by coworkers for working with this population.

Opportunities for Treatment of Maternal SUD

"See a need, fill a need." These "needs" in healthcare are referred to as opportunities. When opportunities are recognized, they can be acted upon to implement treatments. Opportunities for treatment found in the research included the regularly scheduled appointments referred to as the 'window of opportunity' and the trusting relationship developed between the providers and patients.

Regularly Scheduled Appointments/ 'Window of Opportunity'

Lee King et al. (2015) wrote about the "critical window of opportunity for long-term impact" regarding the needs of pregnant patients with high risks (p. 180). Women in

their childbearing age might be experiencing access to healthcare for the first time since childhood. Studies have also shown an increased interest in their own health and motivation to change during this time of their lives. Pregnant women expect to be questioned at prenatal visits about their social life and health; this, according to Cross-Sudworth et al. (2015), creates a 'window of opportunity'. Pregnancy often serves as an opportunity for women to engage in healthy change (Gopman, 2014). Gopman (2014) stated, "Given the incidence of substance abuse in pregnancy, all clinicians who provide prenatal care encounters affected women" (p. 214). These providers have an opportunity to impact not only the women's lives but also the family unit. Obstetric providers present a unique setting to SUD due to the co-occurring illnesses found with SUD. Providers can recognize SUD in patients that come in for regular prenatal visits. They also are prescheduled and are more likely to establish a trusting relationship with the patient.

Trusting Relationship with Patients

Pregnant patients spend a lot of time with their providers and the office staff. In an uncomplicated pregnancy, this amounts to at least one visit every four weeks until the 28^{th} week, at which time the visits are increased to every two weeks and then weekly after 36 weeks gestation (Carter et al., 2016). This time allows for the patient-provider relationship to grow and bonds of trust to be formed. Sword et al. (2012) found that this increased trust among patients and providers was an essential part of quality care. It was also found that this increased trust, promoted a woman's involvement in self-care, as well as helped mitigate any adverse outcomes (Sword et al., 2012).

Bonds are commonly formed with maternal patients and their providers. Kao et al. (1998) found that the more time a patient spends with their provider the more of a

trusting relationship they will have. The patients with a choice of provider also increased their trust in the healthcare organization (Kao et al.,1998). This increased trust formed between patients and providers will promote open communication, which then allows for the increased opportunity of treatment for SUD.

Benefits of Reducing the Stigma Surrounding Maternal SUD

Positive interventions can result in desired outcomes or healthcare benefits. These benefits can include patients utilizing treatment, healthcare prevention, and healthcare maintenance. The benefits of reducing the stigma surrounding maternal SUD were found to be increased SUD treatment, increased compliance with the healthcare plan, and increased positive healthcare outcomes including reduced emergent visits.

Increased SUD Treatment

The literature found that by reducing the stigma surrounding maternal SUD, patients were more likely to be open and honest about their disease. This would then provide an opportunity for the provider to address the disease and develop a treatment plan with the patient. When maternal SUD is understood as a disease, and stigma is not attached to it, providers can then implement screenings for substance use.

Increased Patient Compliance

It is well known that collaborating the healthcare plan with the patient increases patient compliance. Stone (2017) found that “incorporating women’s voices” regarding their perceived barriers to healthcare related to maternal SUD will increase their likelihood of compliance (p. 14).

Increased Positive Outcomes with Reduced Emergent Visits

Reducing the maternal SUD stigma resulted in increased positive healthcare outcomes. Kotelcuch et al. (2017) found a specific association between the treatment of SUD and a lower risk of adverse birth outcomes. Mothers in treatment plans for SUD were less likely to have placental abruptions, drug overdoses, and fetal demise (Staszewski, 2019). These mothers were also more likely to receive prenatal care in general if they were receiving treatment for SUD. Infants diagnosed with neonatal abstinence syndrome had shorter hospital stays on average when compared to infants born to mothers that were not receiving treatment for SUD (Staszewski, 2019).

Methods to Reduce the Stigma and Educate Providers

Tools can be utilized to improve healthcare. These tools or methods, once identified, can then be studied, and taught to providers to increase patient healthcare outcomes. The literature review revealed that stigma related to maternal SUD could be reduced by utilizing methods of empathy, proper communication, increased education, and policy change.

Empathy

Empathy is a vital component in providing up-close, personal, holistic patient care. Moralle et al. (2016) researched the level of empathy expressed by resident physicians and found that the level of empathy decreased during long shifts and stints of work without vacation. This information can be utilized to encourage physician self-care and time off to increase levels of empathy towards their patients. Smith et al. (2017) found that empathy could improve with training. Empathy scales can also be utilized to better understand areas that need a change in the medical practice (Smith et al., 2017).

Communication

Stone (2017) found that "better communication between medical staff and mothers may help ease confusion and feelings of stigmatization and unfair treatment" (p. 13). Mothers reported not knowing that their newborns would have such serious withdrawal symptoms and that child protective services would be involved (Stone, 2017).

Using medically correct terminology decreases the stigma associated with maternal SUD. Avoiding words like an addict, user, clean, and dirty and instead of using medically nonnegative words like abstinence, a person with a SUD, and simple clear-cut words like negative and positive were better accepted and more appropriately in line with the terminology used to describe other chronic diseases (U.S. Department of Health and Human Services Health Resources and Services Administration, 2020).

Education

Vendetti et al. (2017) found that increased education and attention to barriers in the implication of the screening, brief intervention, and referral to treatment (SBIRT) were needed to be successful in addressing SUD. Vendetti et al. (2017) found education was lacking in communication, collaboration, and leader support for the implementation of the SBIRT. Milligan et al. (2016) found that administrators and policymakers needed more training on the emotion regulation and executive functions related to women with substance-related problems.

Howard (2015) found that healthcare providers need more training to understand that mothers should be encouraged to parent their children and be reminded that they do have the capabilities and resources available to assist them. Healthcare providers should

be educated on the complexity of maternal SUD and strategies to reduce the stigma (Howard, 2015).

Policy Changes

Kotelcuch et al. (2017) found a lack of services for women with SUD. This finding should “reinforce policy makers’ efforts to invest in treatment programs for women with SUD" (p. 901). Stone (2015) found that punitive policies have discouraged women from seeking prenatal care or skipping their appointments and withholding medically relevant information.

Policy change is needed to encourage newborns to room in with their mothers when appropriate (Committee on Obstetric Practice, 2017). Neonatal abstinence syndrome symptoms were reduced, and improved infant/maternal bonding development was noted with the encouragement of breastfeeding in this population (Committee on Obstetric Practice, 2017).

Summary and Future Direction

Studies have increased over the past few years, with more maternal SUD research being done now than ever before. Now is the time to address this epidemic and implement practice changes. Maternal SUD is a chronic, lifelong, treatable disease with several ways to reduce barriers and increase the opportunities for treatment. Maternal healthcare providers are on the frontlines treating a population that may not always want to seek treatment or have the resources available to receive treatment. This population shows courage, to be honest about their fears and be willing to trust health care providers. Maternal providers have a duty to seek education to provide evidence-based treatment.

This includes incorporating the neuropathology of SUD into their practice by reducing the negative terminology and using medically correct terms to describe the disease.

Increasing the knowledge of maternal SUD to maternal healthcare providers is a way to increase trust and compliance. Increasing trust and compliance with this population will result in fewer adverse health outcomes and emergent visits, which will decrease overall healthcare costs and improve overall family dynamics. This intervention has the potential to do the most good with the least amount of cost to society.

CHAPTER III

Methodology

Project Design

A pre-test/post-test research design was used for this study. There was no control group; therefore, it is a quasi-experimental study. Qualtrics were utilized to design a pre-test and post-test. An email including a brief description of the study, an invitation to participate, and a link to the pre-test were sent to Coffeyville Regional Medical Center Women's Health Unit, Coffeyville Women's Health Clinic, and Coffeyville Regional Medical Center Family Practice Pediatrics employees. This included registered nurses, obstetric gynecological physicians, a pediatrician, a family practice physician, and a nurse practitioner. Following the pre-test, an electronic educational handout was provided followed by a post-test. The pre-test and post-test results were compared to determine if the educational handout decreased the healthcare providers' stigma associated with maternal substance use disorder and increased their knowledge of the disease. Objective data was examined statistically to answer the project questions:

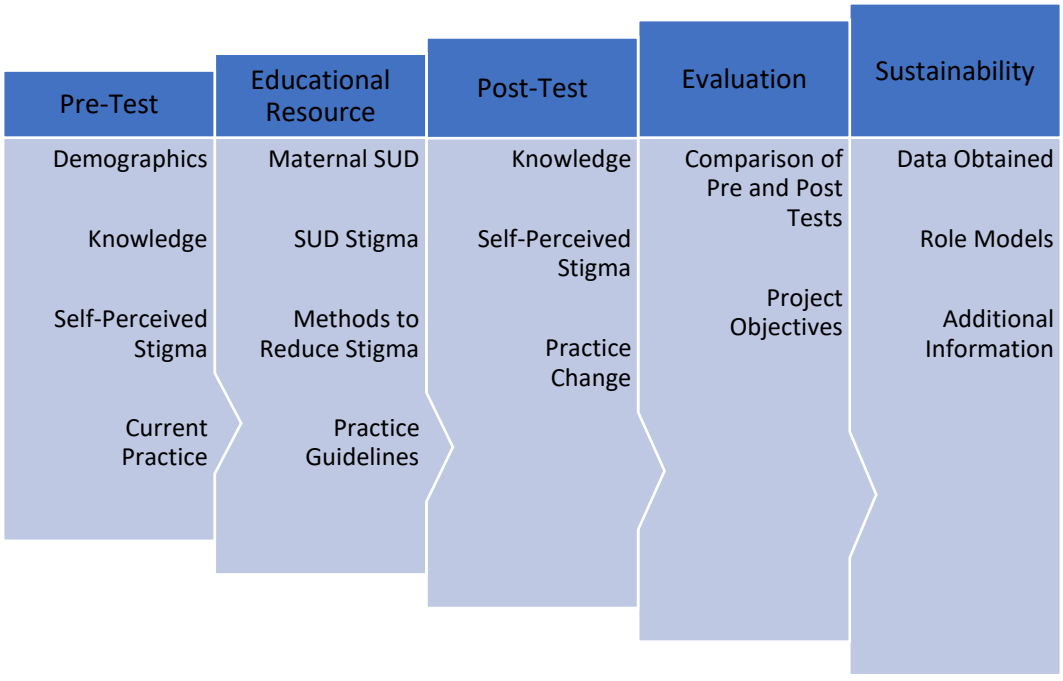
- What is the healthcare provider’s self-reported level of knowledge related to maternal substance use disorder?
- What is the healthcare providers’ level of self-perceived stigma toward patients with maternal substance use disorder before an educational intervention?

- Is there a difference in healthcare providers' self-perceived stigma by their years of experience in healthcare?
- Is there a difference in healthcare providers' self-perceived stigma according to past experiences with family or friends with substance use disorder?
- What is the healthcare providers' level of self-perceived stigma toward patients with maternal substance use disorder after an educational intervention?
- Does the healthcare provider plan to change their views of maternal substance use disorder after the educational intervention?
- What are the healthcare providers' intentions toward role modeling regarding the treatment of maternal substance use disorder after the educational intervention?

Data obtained from this study will be utilized to direct future studies. A project design is depicted in Figure 3.

Figure 3

Project Design



Target Population

The target population for this project included health care providers with direct contact with maternal SUD patients in a rural community health setting. This included nurses, obstetric gynecological physicians, a pediatrician, a primary care physician, and a nurse practitioner.

Target Population Recruitment

The target population was recruited using convenience sampling. A mass email was sent to Coffeyville Regional Medical Center Women's Health Unit, Coffeyville Women's Health Clinic, and Coffeyville Regional Medical Center Family Practice Pediatrics employees inviting them to participate in the study. Respondents meeting the inclusion criteria were included in the study. No compensation was given to participants.

Inclusion and Exclusion Criteria

Inclusion criteria included current employees of Coffeyville Regional Medical Center Women's Health Unit, Women's Health Clinic, and Family Practice Pediatrics with a working email address and direct patient contact of maternal SUD patients. This included nurses, obstetric gynecological physicians, a pediatrician, a family practice physician, and a nurse practitioner.

Exclusion criteria were those that are not employed at Coffeyville Regional Medical Center Women's Health Unit, Women's Health Clinic, or Family Practice Pediatrics and do not have a working email. Those that do not have direct contact with maternal SUD patients were also excluded.

Protection of Human Subjects

Patient information was not accessed or utilized for this study. Information obtained from the study was kept confidential and electronic. This project is exempt; therefore, informed consent was assumed by the participants participating in the project by filling out the surveys and reviewing the educational handout.

The principal investigator and the DNP scholarly project committee (Mandi Alonzo, Kristi Stuck, and Gena Coomes) had access to the data during the study. The data will be stored on the faculty advisor's password-protected computer for two years after the completion of the project. The faculty advisor was the only one with access to the data after the project.

Names were not used for this study. Participation in the study was voluntary. The information gained in the study did not affect employment. An IRB form was submitted to the review board of the Irene Ransom Bradley School of Nursing at Pittsburg State University. Permission for the study and access to the email system was obtained from the Coffeyville Regional Medical Center education coordinator and director of quality and risk management as instructed by the chief nursing officer.

Directors at the three cooperating facilities were given a copy of the final project report. The results of the research were posted in the break room of the Coffeyville Regional Medical Center Women's Health Unit, Coffeyville Women's Health Clinic, and Coffeyville Regional Medical Center Family Practice Pediatrics.

Instruments

This study included the use of three instruments: the pre-test (See Appendix A), post-test (See Appendix B), an educational handout (See Appendix C). No previous

instruments were found specific to this study; therefore, these were created. The created surveys were validated by peer review including OB/GYN addiction expert, Dr. Mishka Terplan, Pittsburg State University Assistant Professor/ Master Advisor Dr. Kristi Stuck, and Pittsburg State University Instructor/Master Advisor Dr. Amanda Alonzo. The pre-test contained three demographic questions and 14 questions related to the awareness of maternal SUD, the self-perceived stigma associated with maternal SUD, and the clinical practice related to maternal SUD. The educational handout included background information, statistics, evidence-based guidelines, and charts that were easy to understand and remember. The post-test contained 14 questions related to the awareness of maternal SUD, the self-perceived stigma associated with maternal SUD, and the clinical practice related to maternal SUD. There were no financial costs for the instruments utilized for this study.

Procedure

To review for any risks to study participants, Institutional Review Board (IRB) approval was obtained before the start of this study. Once the study was approved, the target population was contacted via email requesting participation. Participants were emailed instructions and links to the pre-test, educational handout, and post-test.

The study began with the pre-test. Following the completion of the pre-test, participants were directed to an educational handout. The educational handout was created by this author utilizing the information gained from the extensive literature review of maternal substance use disorder. Interventions and guidelines found in the literature to reduce the stigma associated with maternal SUD were included in the educational handout. The educational handout also included statistical information

regarding SUD and methods to increase patient/provider trust, compliance, and positive healthcare outcomes.

Following the educational handout, participants were directed to the post-test. The post-test was like the pre-test but excluded demographic questions and included questions regarding plans for practice change.

Evaluation Methods

Data was gathered in a Qualtrics statistical program. The data from Qualtrics was uploaded onto the researchers' computer and was compared using Excel for the pre-test and post-test questions. Paired t-tests were conducted to evaluate correlation and significance. The principal investigator and the DNP Scholarly Project Committee (Mandi Alonzo, Kristi Stuck, and Gena Coomes) had access to the data during the study and assisted with the interpretation. Every effort was made to maintain anonymity. Identifiers were not utilized during this study. The study material was only accessed on the researcher's locked and password-protected laptop computer. The outcomes were assessed for correlations between education and stigma reduction towards patients.

Plan for Sustainability

The stigma associated with maternal SUD has been well documented as a barrier to treatment (Howard, 2015). The goal of this study was not only to reduce the provider perceived stigma but also to encourage provider role models among colleagues. Lack of provider role models has been determined to be a cause of reduced substance use disorder treatment (Ober et al., 2017).

Summary

This study was designed using a pre-test/post-test research method to gain a better understanding of healthcare providers' self-reported stigma related to maternal SUD. The target population included those with valid medical licensure in a rural Midwest setting who had direct contact with maternal SUD patients. An electronic educational handout was designed to increase healthcare providers' knowledge and understanding of maternal SUD treatment and methods to reduce the perceived stigma. The results of the study can be utilized to assist in future studies involving educating providers and evaluating the effectiveness of teaching methods.

CHAPTER IV

Results

This project was developed with the goal of reducing the stigma associated with maternal substance use disorder. By reducing the stigma, specifically stigma perceived by healthcare providers, patients would be more likely to seek prenatal care and be compliant with their plan of care. The objective questions addressed in the survey examined maternal health care providers' self-reported knowledge and stigma related to maternal substance use disorder (SUD). Participants completed a self-report survey regarding their knowledge of and stigma related to maternal SUD. They were then given an educational resource on maternal SUD treatment guidelines, the effects of stigma, and ways to reduce the stigma. Participants then completed a post-self-report survey. The purpose was to determine if an educational resource would reduce the stigma associated with maternal SUD.

Description of the Population

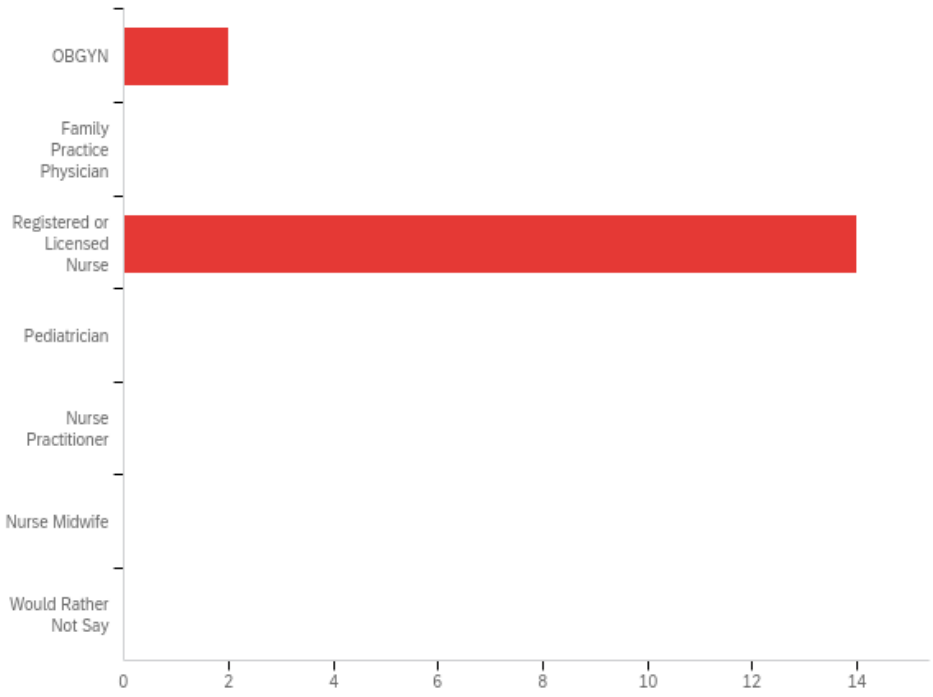
Coffeyville Regional Medical Center Women's Health Unit and Women's Health Clinic employees were invited to participate in the study. This included nurses, obstetric gynecological physicians, a pediatrician, a family practice physician, and a nurse practitioner. A total of 23 healthcare providers meeting the inclusion criteria were invited to participate. Of those 23, 14 participates completed the pre- and post-surveys and two

participants completed just the pre-survey. The participates were invited utilizing email and were directed to Qualtrics.com where the pre-test, educational resource, and post-test were conducted. The survey ran from August 16th, 2021, to August 30th, 2021. Participants were only asked to report their demographics on the pre-test. The demographic information collected included practice type, years of experience, and whether the respondents had a family member or close friend with SUD.

Fourteen respondents were registered nurses (87.5%), and two respondents were obstetric gynecological physicians (12.5%) (Figure 4). There were no reports of pediatricians, family practice physicians, or nurse practitioners.

Figure 4

Profession of respondents

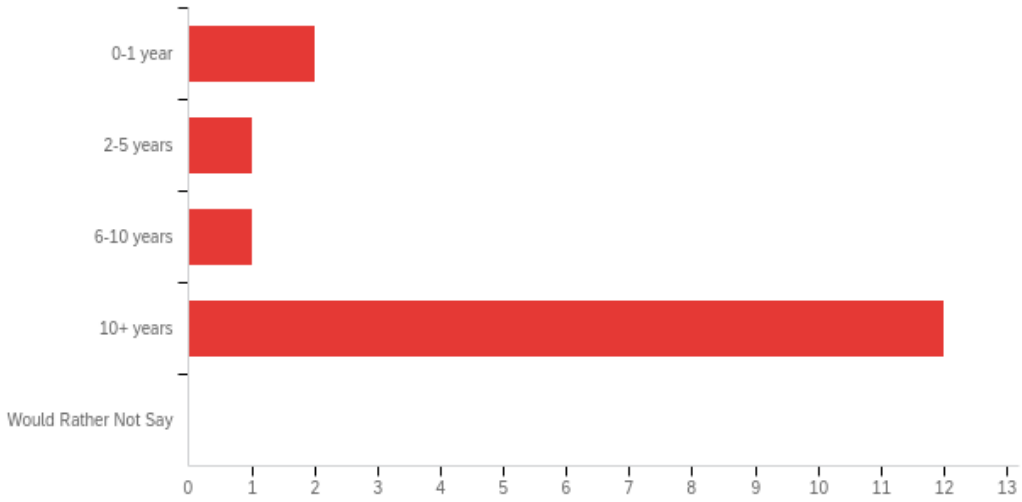


The majority (75%) of the respondents had over 10 years of experience (Figure 5). Two (12.5%) of the respondents had less than 1 year of experience. One (6.25%)

respondent reported between 2-5 years of experience and one (6.25%) respondent reported between 6-10 years of experience.

Figure 5

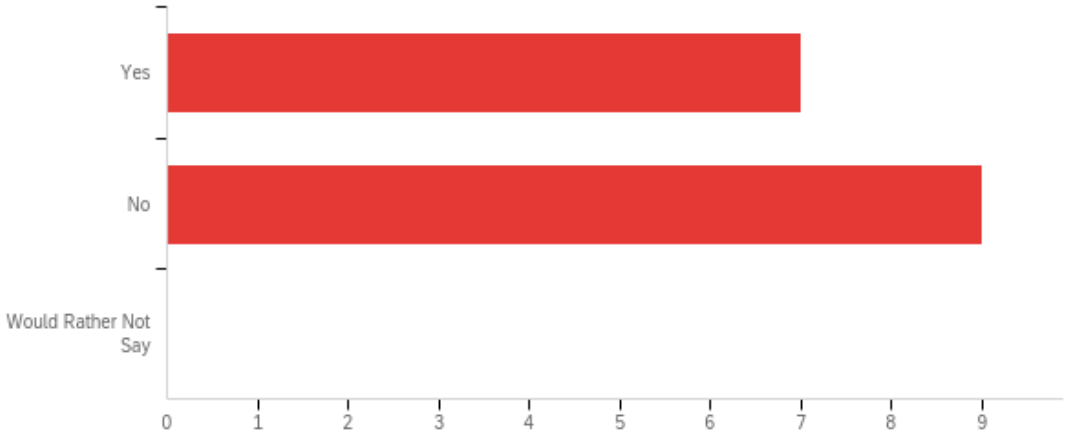
Years of experience of respondents



The respondents were almost evenly divided between if they did or did not have a family member or close friend with substance use disorder (Figure 6). Nine respondents (56.25%) reported that they did not have a family member or close friend with substance use disorder and seven (43.75%) reported that they did have a family member or close friend with substance use disorder.

Figure 6

Report of a family member or close friend to someone with substance use disorder



Key Variables

Independent Variable

For this study, the independent variable was the educational resource. The resource was designed by this researcher based on evidence-based research. It was then reviewed by OB/GYN addiction expert, Dr. Mishka Terplan. The resource was provided to participants as an electronic two-page handout. Participants were able to view the resource at their own pace and could download it for future reference.

Dependent Variable

The dependent variables were the providers' self-reported level of knowledge associated with maternal substance use disorder (7 questions), providers' self-perceived stigma (3 questions), and providers' current practice (4 questions). The three dependent variables were affected by education. The self-reported awareness was increased. The self-reported stigma was decreased, and current practice change was reported.

Analyses of Project Questions

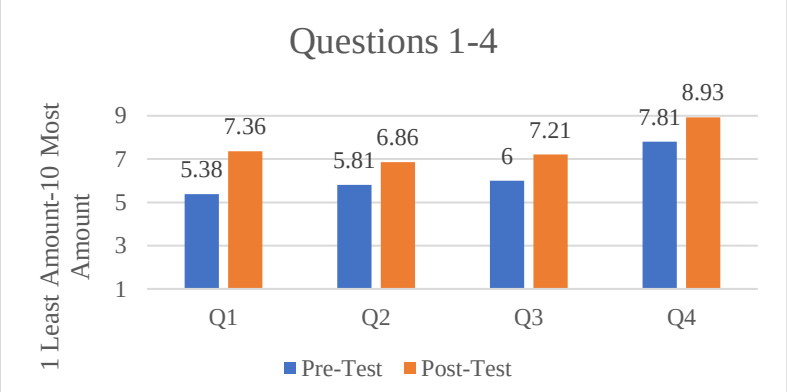
Data was collected via the pre-test and post-test. The pre-test and post-test data were then compared and analyzed using Qualtrics and Excel. Paired t-tests were conducted to evaluate correlation and significance. This data was then utilized to answer the seven project questions.

Question One: What is the healthcare provider's self-reported level of knowledge related to maternal substance use disorder?

This question was answered using questions 1-7 on the pre-test and post-test. Questions 1-4 were answered using a 1-10 scale with 10 being the most amount and 1 being the least amount (Figure 7). Questions 5-7 were answered using a 1-10 scale with 10 strongly agreeing and 1 being strongly disagreed (Figure 8). The questions were identical on both the pre and post-tests.

Figure 7

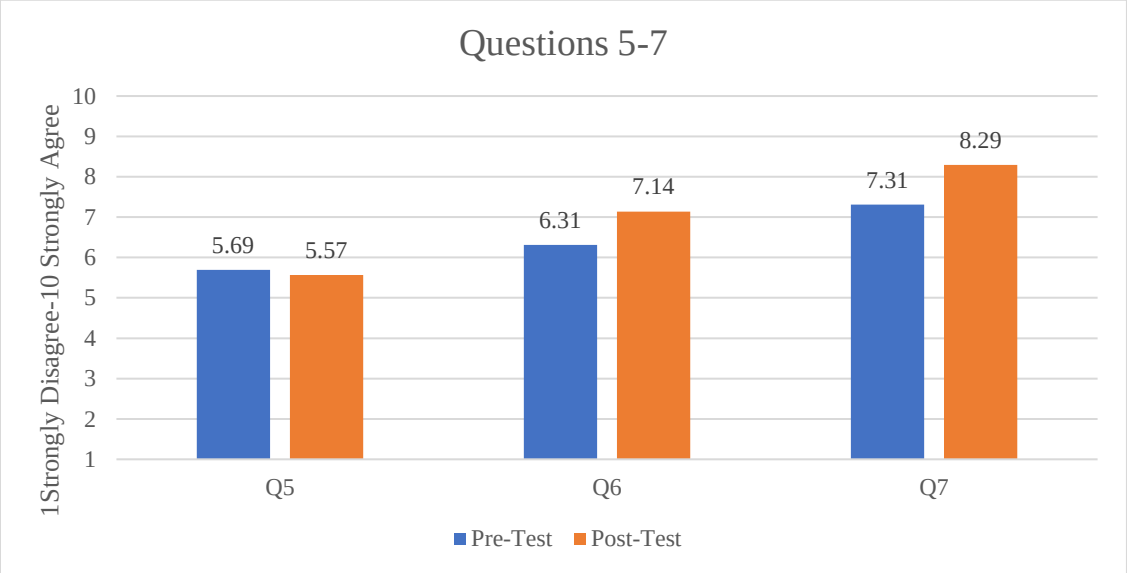
Self-reported provider awareness associated with maternal substance use disorder from least amount to the most amount.



LEGEND
Q1 How much do you know about Maternal Substance Use Disorder?
Q2 How much do you know about the perceived stigma associated with Maternal Substance Use Disorder?
Q3 How would you rate your level of confidence in communicating with people with substance use disorder?
Q4 How important are role models to patients with Maternal Substance Use Disorder?

Figure 8

Self-reported provider awareness associated with maternal substance use disorder from strongly disagree to strongly agree.



LEGEND
Q5 Those with Substance Use Disorder are to blame for the problem.
Q6 Those with Substance Use Disorder are responsible for their own health.
Q7 Substance Use Disorder is a treatable chronic disease.

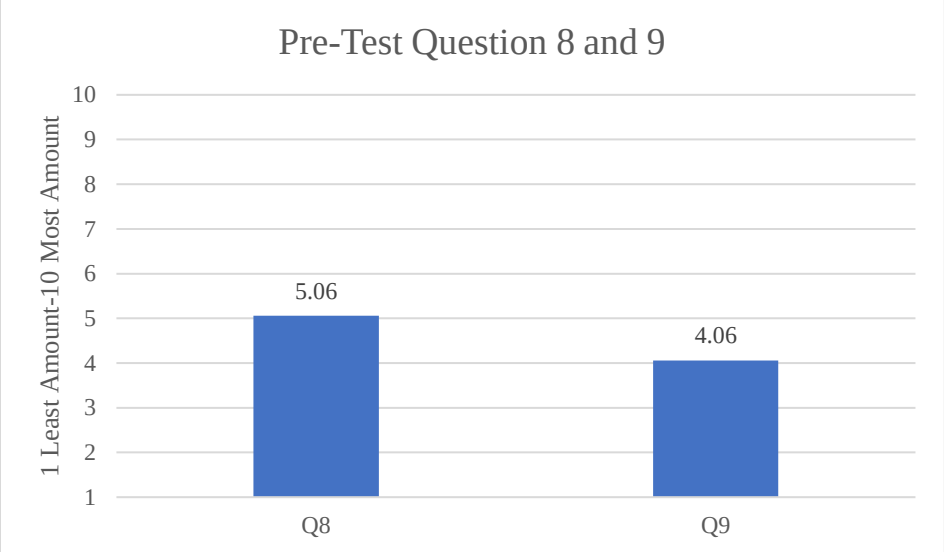
Respondents self-reported more knowledge after the educational resource on maternal SUD and the perceived stigma related to maternal SUD. They also self-reported more confidence in communicating with SUD patients, and a better understanding of the importance of role models for maternal SUD patients. Significant correlations related to understanding the disease process following the educational resource included the importance of role models (r = .58, p = .020), not blaming patients for their disease (r = .55, p = .029), SUD is a treatable chronic disease (r = .64, p = .008).

Question Two: What is the healthcare providers' level of self-perceived stigma toward patients with maternal substance use disorder before an educational intervention?

This question was answered using questions 8-10 on the pre-test. Questions 8 & 9 were answered using a 1-10 scale with 10 being the most amount and 1 being the least amount (Figure 9). Question 10 was answered using a 1-10 scale with 10 strongly agreeing and 1 being strongly disagreed (Figure 10).

Figure 9

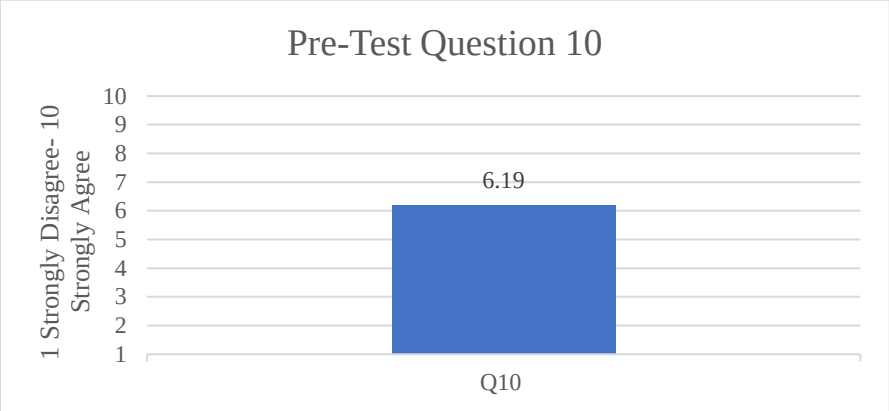
Self-reported provider perceived stigma



LEGEND
Q8 How would you rate your personal stigma related to Maternal Substance Use Disorder patients?
Q9 Do you feel you treat Maternal Substance Use Disorder patients differently?

Figure 10

Self-reported perceived stigma as a health determinant for maternal substance use disorder



LEGEND
Q10 Stigma is a health determinant for people with Maternal Substance Use Disorder.

On a scale of 1-10 with 1 being the least amount and 10 being the most amount, respondents self-reported a 5.06 on the level of personal stigma related to maternal SUD patients, and a 4.06 on the level of treating maternal SUD patients differently before the educational resource. The respondents reported a 6.19 with 1 being strongly disagreed and 10 strongly agreeing on the level of stigma being a health determinant for people with maternal SUD.

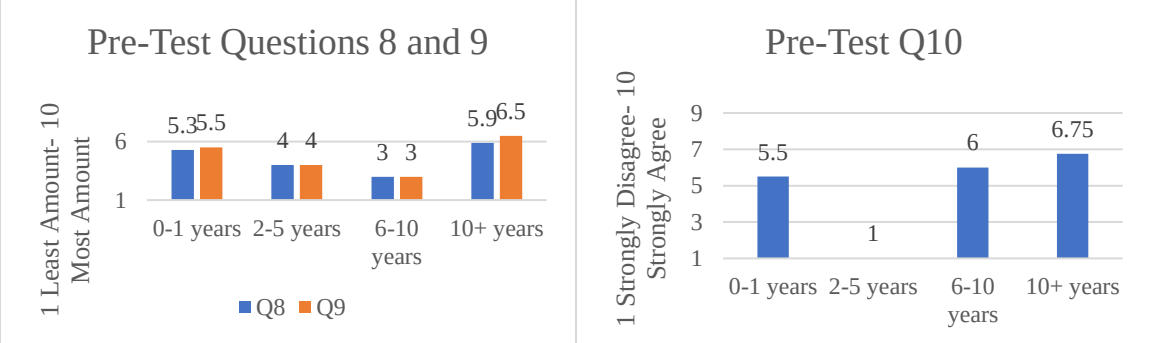
Question Three: Is there a difference in healthcare providers' self-perceived stigma by their years of experience in healthcare?

This question was answered by comparing the answer to question 2 in demographics to the answers to questions 8-10 on the pre-test (Figure 11). Question 2 was multiple choice with option A. being 0-1 years, option B. 2-5 years, option C. 6-10 years, option D. 10+ years, and option E. Would Rather Not Say. Questions 8 & 9 were

answered using a 1-10 scale with 10 being the most amount and 1 being the least amount. Question 10 was answered using a 1-10 scale with 10 strongly agreeing and 1 being strongly disagreed.

Figure 11

The self-reported difference in health providers' level of stigma compared to years of experience



LEGEND
Q8 How would you rate your personal stigma related to Maternal Substance Use Disorder patients?
Q9 Do you feel you treat Maternal Substance Use Disorder patients differently?
Q10 Stigma is a health determinant for people with Maternal Substance Use Disorder.

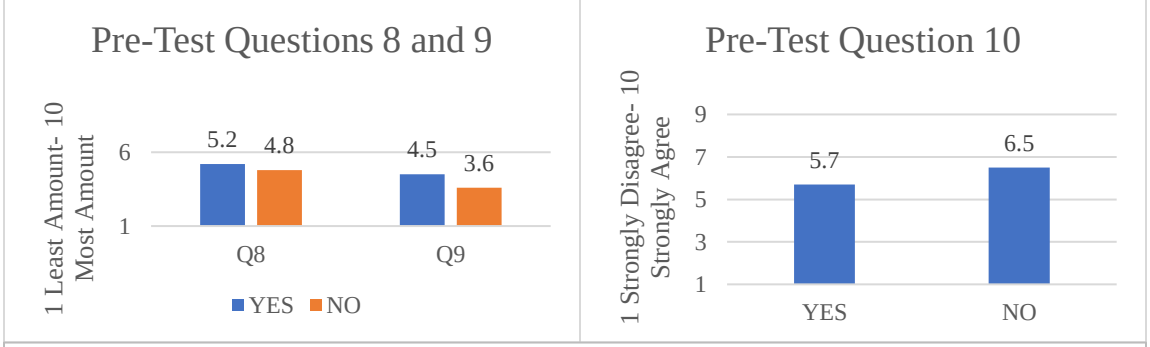
According to the data, there appears to be a curve in self-reported stigma related to maternal SUD patients, with the least amount of self-reported stigma being between the 2-10 years of practice experience and the most amount of self-reported stigma at the beginning of practice and after 10 years of experience. A similar curve is also seen in the self-reporting of treatment of maternal SUD patients. The data shows that the new providers and those with over 10 years of experience are most likely to treat patients with maternal SUD differently.

Question Four: Is there a difference in healthcare providers' self-perceived stigma according to past experiences with family or friends with substance use disorder?

This question was answered by comparing the answer to question 3 in demographics to the answers to questions 8-10 on the pre-test (Figure 12). Question 3 was multiple choice with option A. being "YES", B. "NO" and C. "Would Rather Not Say". Questions 8 & 9 were answered using a 1-10 scale with 10 being the most amount and 1 being the least amount. Question 10 was answered using a 1-10 scale with 10 strongly agreeing and 1 being strongly disagreed.

Figure 12

Self-reported stigma related to past experiences with family or friends with SUD



LEGEND
Q3 in demographics, Do you have a family member or close friend with Substance Use Disorder?
Q8 How would you rate your personal stigma related to Maternal Substance Use Disorder patients?
Q9 Do you feel you treat Maternal Substance Use Disorder patients differently?
Q10 Stigma is a health determinant for people with Maternal Substance Use Disorder.

The survey results indicated that the providers with previous experience of a family member or friend with SUD, self-reported increased stigma related to maternal SUD patients (5.2/10 compared to 4.8/10). These providers also reported a higher amount regarding treating maternal SUD patients differently (4.5/10 compared to 3.6/10). Following the educational resource there was a better understanding of the treatment of maternal SUD patients (r = .70, p = .003). Providers with experience of a family member

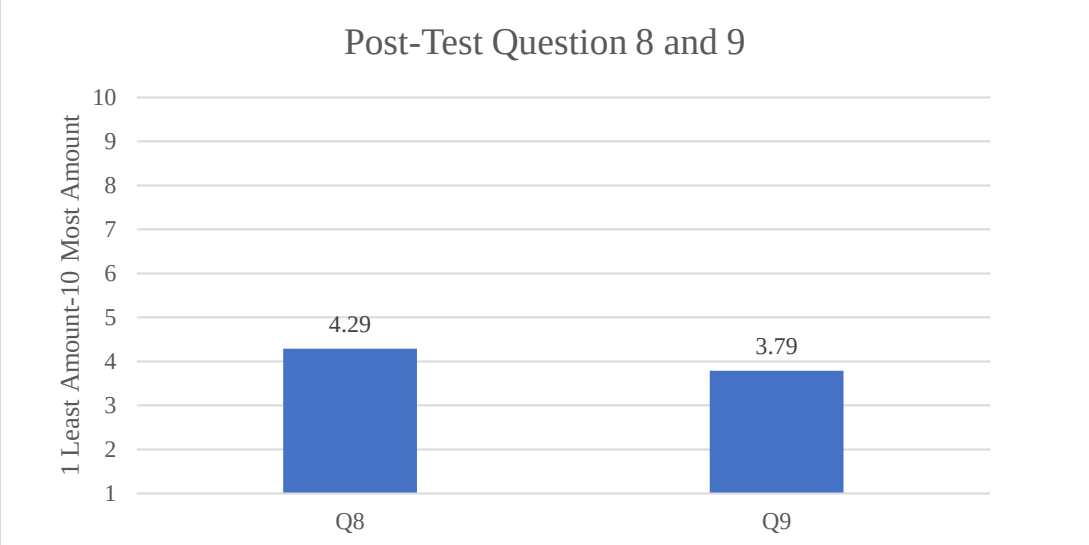
or friend with SUD also were less likely to agree that stigma is a health determinant for people with maternal SUD (5.7/10 compared to 6.5/10).

Question Five: What is the healthcare providers' level of self-perceived stigma toward patients with maternal substance use disorder after an educational intervention?

This question was answered using questions 8-10 on the post-test. Questions 8 & 9 were answered using a 1-10 scale with 10 being the most amount and 1 being the least amount (Figure 13). Question 10 was answered using a 1-10 scale with 10 strongly agreeing and 1 being strongly disagreed (Figure 14).

Figure 13

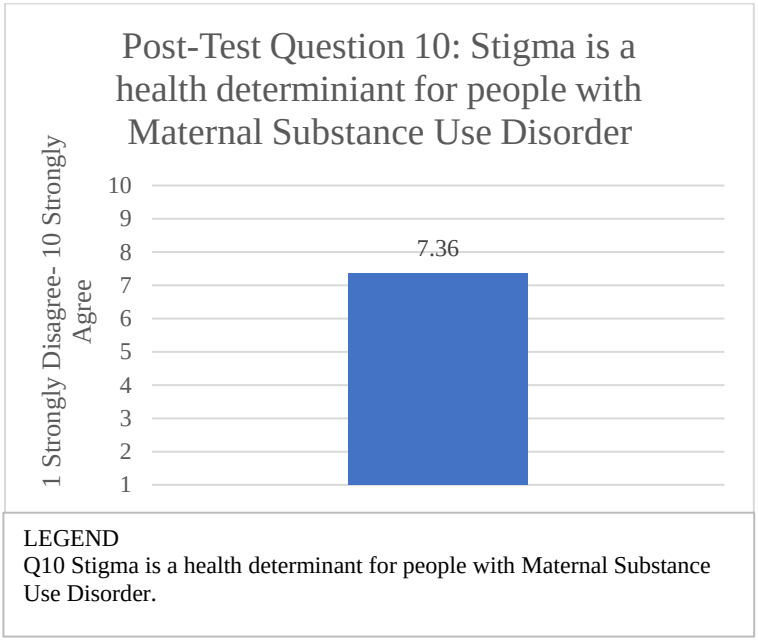
Self-reported provider perceived stigma after educational intervention



LEGEND
Q8 How would you rate your personal stigma related to Maternal Substance Use Disorder patients?
Q9 Do you feel you treat Maternal Substance Use Disorder patients differently?

Figure 14

Self-reported perceived stigma as a health determinant for Maternal Substance Use Disorder after educational intervention



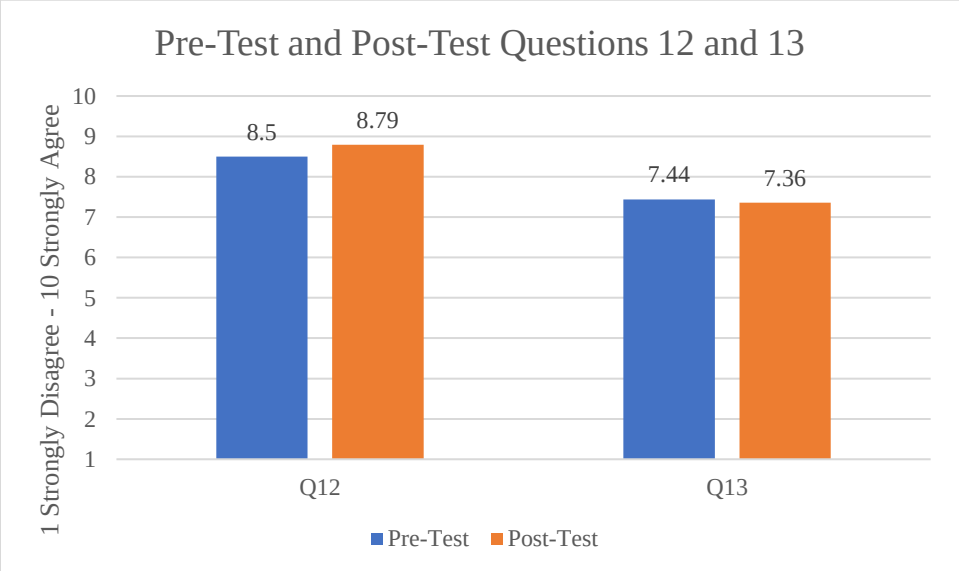
On a scale of 1-10 with 1 being the least amount and 10 being the most amount, respondents self-reported a 4.29 on the level of personal stigma related to maternal SUD patients. This is less than the 5.06 reported before the educational resource. Respondents reported a 3.79 on the level of treating maternal SUD patients differently compared to the 4.06 before the educational resource. The respondents also reported a 7.36 with 1 being strongly disagreed and 10 strongly agreeing on the level of stigma being a health determinant for people with maternal SUD compared to the 6.19 before the educational resource. This is not a significant difference.

Question Six: Does the healthcare provider plan to change his/her views of maternal substance use disorder after the educational intervention?

This question was answered using questions 12 and 13 on the pre-test and post-test (Figure 15). Both questions were answered using a 1-10 scale with 10 strongly agreeing and 1 being strongly disagreed. The questions were identical on both the pre and post-tests.

Figure 15

Self-reported plans to change views of maternal SUD



LEGEND
Q12 I would like to be a role model for your colleagues.
Q13 I will make practice changes regarding Maternal SUD treatment.

Following the educational resource, there was a significant desire to be a role model for colleagues (8.79/10 compared to 8.5/10) (r = .83, p = .000). However, there was a slight decrease in the self-reporting of plans to make practice changes following the educational resource (7.44/10 compared to 7.36/10) (r = .57, p = .022). This could be

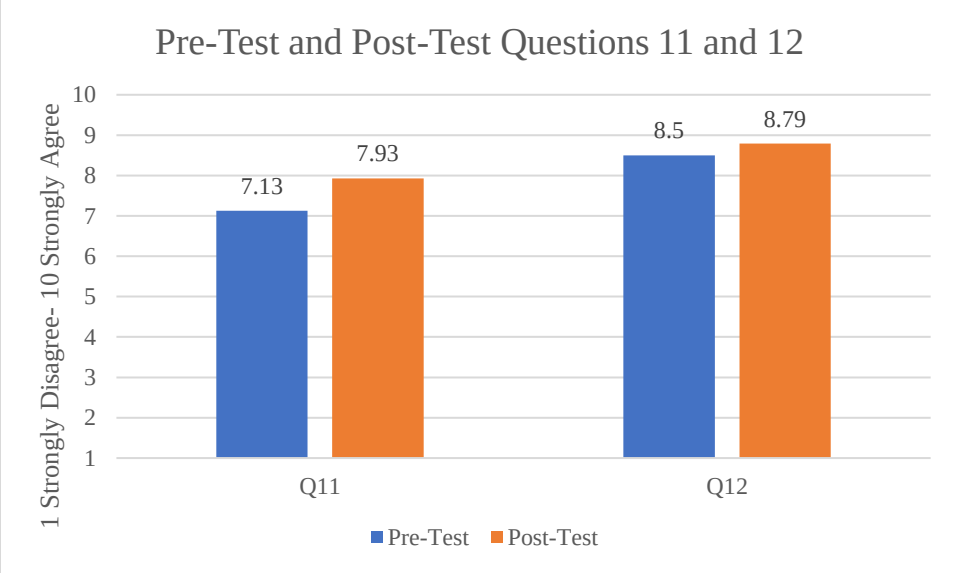
explained by the respondents having a high desire to change even before the educational resource.

Question Seven: What are the healthcare providers' intentions toward role modeling regarding the treatment of maternal substance use disorder after the educational intervention?

This question was answered using questions 11 and 12 on the pre-test and post-test (Figure 16). Questions 11 and 12 were answered using a 1-10 scale with 10 strongly agreeing and 1 being strongly disagreed. The questions were identical on both the pre and post-tests.

Figure 16

Self-reported intentions toward role modeling



LEGEND
Q11 I consider myself to be a role model for my colleagues.
Q12 I would like to be a role model for your colleagues.

Following the educational resource, there was an increase in self-reported role models for colleagues (7.93/10 compared to 7.13/10) (r = .78, p = .000). There was also a

self-reported increase in desire to become a role model regarding maternal SUD following the educational resource (8.79/10 compared to 8.5/10).

Summary

The data revealed that by providing education on maternal SUD, stigma towards maternal SUD patients reduces. Providers with the least amount of experience and providers with over 10 years of experience reported the most amount of stigma. Education should be focused on providers in school, right out of school, and again after 10 years of experience. Interestingly the level of stigma also increased if the provider had a previous experience with a family or close friend with SUD. This could be due to a lack of education and or treatment received by the family member or close friend with SUD.

The data also revealed that maternal healthcare providers only have a moderate amount of knowledge related to maternal substance use disorder. However, they have a strong desire to make practice change and become role models for their colleagues. The data showed that providers are more likely to see the importance of and become role models for maternal SUD patients after an educational intervention on maternal SUD. Evidence-based research is readily available and should be encouraged and utilized by providers.

By reducing the stigma related to maternal SUD and increasing the knowledge of the disease, patients are more likely to be compliant with treatment plans and have trusting relationships with their providers. Mothers are not only responsible for themselves but also the vulnerable population of children under their care. By reducing the stigma associated with maternal SUD, providers have an opportunity to make a difference in the family dynamics, which may improve the odds of keeping families

together, thereby reducing the risk for future generations of SUD patients and helping to eliminate this epidemic.

CHAPTER V

Discussion

The purpose of this study was to determine if an educational resource provided to maternal healthcare providers would reduce the stigma associated with maternal SUD. The secondary purpose of this study was to determine if years of experience and/or previous experience with a family member or close friend with substance use disorder (SUD) affected healthcare provider stigma. These questions were answered by administering a pre-test, educational resource, and then a post-test. The data was then used to answer the seven project questions.

Question One

Maternal SUD is a complex lifelong disease, with the provider being responsible for not one but two lives. Adding to the complexity, the disease can also be co-occurring with mental illness and/or trauma and non-compliance (Lee King et al., 2014). Education, training, and role modeling are a must to keep up with this complex disease and treatment plans. When providers are educated on the disease, they are more comfortable with addressing the medical and physiologic aspects of the disease (Press et al., 2016). Improved knowledge of maternal SUD was an expected outcome following the educational resource.

Maternal SUD knowledge was increased following the administration of the educational resource. This was demonstrated by the higher self-reported scores of knowledges of maternal SUD after the educational resource via the post-test. The seven questions on the pre-test were compared to the post-test. After the educational resource providers self-reported a higher level of knowledge on all seven knowledge-based questions. Providers scored on average 1.02 points higher per question on the post-test than on the pre-test.

Question Two

Stigma is a barrier to treatment in both maternal SUD and mental health disorders. Cockroft et al. (2019) found an overall distrust of the healthcare system due to stigma. Stigma can be found in many different forms including internal and external causes. It was expected that the providers would score a moderate amount of stigma on the pre-test.

Self-reported stigma was recorded utilizing three questions. Providers scored on average a 4.31 out of 10 on the stigma scale, with 10 being the most amount of stigma. This was score was lower than expected and could be due to providers being unaware of self-stigma prior to the stigma education.

Question Three

Long hours, limited breaks, and lack of vacation are causes for decreased provider empathy (Moralle et al, 2016). This objective question was aimed at finding out if providers' years of experience affected their level of stigma. It was hypothesized that the more years of experience the provider had there would be an increase in their stigma.

Three self-reported stigma questions on the pre-test were compared to question two in demographics. Providers scored on average two points higher on the stigma scale

at the beginning of their career (less than 1 year) as well as after 10 years of experience. This could be related to a lack of SUD education in medical and nursing training programs and as hypothesized that the longer the provider serves, the more likely they will have had a prior negative outcome with a SUD patient. This could also be due to the importance of staying current on SUD developments and treatment plans.

Question Four

As stated previously, stigma can be from both internal and external factors. It was hypothesized that provider stigma could be affected by their experience with a family member or close friend with SUD. Stigma (related to treatment from providers) due to their beliefs and bias from society was found to induce internal stigma from shame (Howard, 2015). This internal stigma that providers have, that has nothing to do with the patient in front of them, can then cause external stigma to the patient.

This question was answered using one question in demographics compared to three questions on the pre-test. As expected, providers who reported not having a family member or close friend with SUD scored on average 0.7 less on the stigma scale, when compared to providers who reported having a family member or close friend with SUD. This could be due to the relapsing and complexity of the disease as well as the chronic nature of the disease (Pitt et al., 2018). SUD can leave friends and family members feeling hopeless and helpless.

Question Five

Healthcare providers should be educated on the complexity of maternal SUD and strategies to reduce the stigma (Howard, 2015). It is well known that evidence-based treatment improves prevention, treatment, and recovery. Continued education is part of

the required licensure of all maternal healthcare providers. When providers are educated on the disease, they are more comfortable with addressing the medical and physiologic aspects of the disease (Press et al., 2016). This question aimed at finding out what the provider's level of stigma was after an educational resource.

The educational resource that was provided decreased the provider's self-reported stigma. This was an expected finding. This question was determined by comparing the self-reported scale of three questions on the pre-test (4.31) to the same three questions on the post-test (3.57). The providers scored an average of 0.74 points less on the stigma scale after viewing the educational resource provided. Although, that does not seem like a big difference it did change the level of stigma from moderate to mild. This was also only a brief two-page educational resource.

Question Six

The educational resource included information regarding the opportunity for change during this major life event for maternal patients. Kotelcuch et al. (2017) found a specific association between the treatment of SUD and a lower risk of adverse birth outcomes. It was expected that the providers would be willing to make practice changes following the educational resource.

This question was determined by comparing two questions on the pre-test to the same questions on the post-test. Providers on average reported an increase of .29 on the desire to become a role model for colleagues but had a 0.08 decrease on plans for practice change following the educational recourse. This was not an expected outcome. This could be due to the high levels of desire to be role models and make practice changes even before the educational resource. It could also be due to, as stated previously, only being a

small two-page electronic resource and not a larger simulated or public speaker educational resource.

Question Seven

Previous studies have noted the lack of role models for maternal SUD providers. Lack of provider role models has been determined to be a cause of reduced substance use disorder treatment (Ober et al., 2017). This project aimed at increasing provider role models by increasing knowledge and communication skills, thereby increasing provider confidence and role models. Mora-Rios et al. (2017) reported on common practices of lack of administrative support, including from the bureaucracy, as well as the stigma received by coworkers for working with this population.

This question was determined by comparing the answers to two questions on the pre-test to the same two questions on the post-test. The providers on average self-reported an increased desire of 0.545 to become a role model and increased self-consideration as a current role model following the educational resource. This was an expected finding. The more the providers understood the disease process and the treatment of the disease, the more likely they are to be confident providers and role models for their colleagues.

Observations

Registered nurses were the most likely to participate in this study. This could be due to increased hours at the desk and the available time to participate in the study (convenience). It could also be explained by the 12-hour shifts and the bond during the laboring and delivering process that is formed between the nurse and the patient and the desire for the nurse to help the patients. The physicians voiced an interest in the study and

a need for change but were more reluctant to participate in the study and provide feedback compared to the nurses.

Interestingly, those that reported having a prior experience with a family member or close friend self-reported higher on the stigma scale. As stated previously, this could be due to a negative outcome. With medical advances and increased evidence-based treatment for this disease, this author hopes that this will change and those with prior experiences can be role models for others, showing empathy and encouraging evidence-based treatment, and utilizing proper medical terminology in place of stigmatized terms.

The participates were able to take the pre-survey, review the educational resource, and then take the post-survey. The study instruments utilized for this study worked as expected. Displaying the responses to the pre-survey alongside the post-survey may assist the participates in filling out the post-survey more accurately in future studies. Participants reported increased knowledge and decreased stigma, but they could not recall what number they reported on the pre-survey, so they were not sure what number to report on the post-survey to reflect this improvement.

Overall, the participants self-reported an increased knowledge of maternal SUD and a decrease in stigma following the educational resource. The outcomes of this study were as expected. This can be utilized to encourage provider continued education on SUD. A direct focus should be on providers at the beginning of their practice/career and again after 10 years of service.

Provider role models are an integral part to combat this epidemic. As found in this study, negative outcomes not only affect the patient and the family but can also affect the provider. This can leave a lasting effect on the provider and how future patients are

approached. This shows the importance of utilizing evidence-based treatment to achieve the best possible outcomes.

Evaluation of Theoretical Framework

"Modeling and Role Modeling" by Helen Erickson, Evelyn Tomlin, and Mary Swain (as cited in Petiprin, 2016) was utilized by this research to gain a better understanding of the lived experiences of patients with maternal SUD and how to better assist them and providers with the treatment of the disease. This theory provided a framework for educating providers from the patient's viewpoint.

The results of this study support the use of the theory in educating providers on the treatment of patients with maternal SUD. The self-reported results specifically point to the need for additional education and role models for treating this population. The theory aims at viewing patients from their point of view, which reduces stigma and encourages individualization and collaboration at the same time. This aspect was used in the development of the surveys and educational resources. Providers were asked to recall personal experiences, evaluate personal stigmas and personal responsibilities to treat this population. This theoretical framework aims for sustained long-term effects by encouraging providers to act as role models. Long-term effects are listed but not analyzed, due to time limitations.

Evaluation of Logic Model

The logic model for this study included short-term, intermediate, and long-term outcomes. The results of the study indicate two out of four of the short-term outcomes were met. This was an expected outcome of the study. The providers reported increased knowledge of maternal SUD stigma and the increased self-awareness of needs, including

role models and education. The other two short-term outcomes were not tested due to the constraints of this study, including not utilizing patient medical records, and not interviewing patients. The two short-term outcomes not tested were increased patient compliance and increased patient-provider trust. According to previous studies when provider stigma is reduced, patient compliance and trust will ensue.

One out of four of the intermediate and long-term outcomes were tested and supported. With an increased awareness of the stigma associated with maternal SUD, providers then self-reported reduced stigma and a desire to become a role model. The other 3 intermediate and long-term outcomes were not tested due to HIPPA and the time constraints of this study. Overall, the project results demonstrated a strong relationship between the initial concepts and the logic model.

Limitations

There were several limitations to this study. The initial sample size was not as large as expected. One of the three obstetrics and gynecology (OBGYN) providers resigned just before the study leaving just two potential OBGYNs for the study.

The response size was smaller than expected. The organization in which the study took place experienced a massive breach in their computer system which disabled the organization's email for several months. This also occurred just before the study, making it more difficult for potential participates to access their email, receive the invite, and participate in the study.

This limitation was attempted to be overcome utilizing the new communication system. The new system included the director sending out mass text messages. The director sent the invite and instructions to the study via text. This could have led to

participants sharing the link to the surveys outside of the intended sample, allowing those that did not meet the inclusion and exclusion criteria to participate in the study.

The instruments utilized in this study had not been used and validated in previous studies. This could have resulted in confusing survey questions, with unintentional self-reporting results. This could have affected the outcome of the results.

Implications for Future Projects and Research

Future study in this area is needed. A specific validated stigma scale could be developed and utilized to evaluate providers' bias in areas of healthcare. This study could be advanced by utilizing a larger sample size and printing the educational resource. As stated previously, the post-survey questions could be set up displaying the participant's pre-survey selection to report their self-reported gains or losses in particular areas more accurately.

The design of the study could be accompanied by a presentation to better educate providers, utilizing the educational resource as a reference to the presentation. The length of the study could also be extended to facilitate increased participates. Continuation Education Units (CEUs) could be awarded to increase participation.

Future studies are needed to report on the results of decreasing the stigma associated with maternal SUD, including chart edits to follow patients' compliance, drug screens, and emergency room visits. Lengthier studies are needed to follow family dynamics, children in state care, and access to community services. Lengthier studies are needed to follow providers' stigma based on past experiences, years of experience, and work without time off.

Implications for Practice/Health Policy/Education

This study included a small educational resource, a small sample size, and was performed over a short length of time. However, the results of this study indicate a significant need for additional education in this area. The participants indicated a high desire to become role models and a lack of knowledge over the topic. Well-educated providers demonstrate confidence in communicating, treating, and role modeling with this population.

Policies should be directed at increasing continued education about SUD specifically during the opioid epidemic, covid19 pandemic, and border crisis. Policies should include reducing judicial involvement of maternal SUD and increasing mental health services and treatment facilities in rural areas.

Providers should be encouraged to use evidence-based practice, including screening for maternal SUD, using medically correct terms and nonpharmacologic pain management, and supporting postpartum psychosocial support.

Conclusion

The stigma associated with maternal SUD is a determinate of healthcare. The goal of this project was to determine if providing an educational resource to maternal healthcare providers, would reduce the stigma associated with maternal SUD. This project also aimed at increasing provider knowledge on the disease process of maternal SUD and current treatment guidelines. Providers were given a pre-test, educational resource, and post-test.

Overall, the project goals were met. Providers reported increased knowledge following the educational resource and decreased self-reported stigma related to maternal

SUD. Providers reported a desire to become role models and a need for increased education on maternal SUD.

Although this study had several limitations, it proves the benefits of continued education on maternal SUD. Previous studies have been done and evidence-based treatment guidelines are available and should be utilized for the treatment of maternal SUD. Continued studies are needed to assess the long-term benefits of reducing the stigma associated with this population. Predicted long-term benefits include increased patient compliance, increased patient-provider trust, decreased late prenatal care, decreased neonatal abstinence syndrome, and finally decreased children in state care and increased family dynamics.

References

American Heritage Publishing Company. (n.d.). The Free Dictionary by Far-lex. Retrieved November 9, 2021, from https://www.thefreedictionary.com/Dr%C3%BBg.

Bricker & Eckler Attorneys at Law. (n.d.) *HIPAA regulations: General provisions - definitions - health care provider - § 160.103*. Retrieved January 15, 2020, from https://www.bricker.com/industries-practices/hipaa-health-information-technology/insights-resources/resource/hipaa-regulations-general-provisions-definitions-health-care-provider-%C2%A7-160103-252

Carter, E. B., Tuuli, M. G., Caughey, A. B., Odibo, A. O., Macones, G. A., & Cahill, A. G. (2016). Number of prenatal visits and pregnancy outcomes in low-risk women. *Journal of Perinatology*, *36*(3), 178–181. https://doi.org/10.1038/jp.2015.183.

Cockroft, J. D., Adams, S. M., Bonnet, K., Matlock, D., McMillan, J., & Schlundt, D. (2019). "A scarlet letter": Stigma and other factors affecting trust in the health care system for women seeking substance abuse treatment in a community setting. *Substance Abuse*, *40*(2), 170-177. https://doi.org/10.1080/08897077.2018.1544184

Committee on Obstetric Practice. (2017). Committee opinion no. 711: Opioid use and opioid use disorder in pregnancy. *Obstetrics & Gynecology*, *130*(2), e81-e94. doi:10.1097/AOG.0000000000002235.

Critchfield, A. S., & Hansen, W. F. (2018). The opioid crisis: Prenatal and postnatal care. *Contemporary OB/GYN*, *63*(3), 10-31.

Cross-Sudworth, F., Williams, M., & Gradosi, J. (2015). Community midwifery care and social care pathways. *Evidence-Based Midwifery, 13*(1), 15. https://search.proquest.com/docview/1679253729.

Cushman, P. A., Liebschutz, J. M., Hodgkin, J. G., Shanahan, C. W., White, J. L., Hardesty, I., & Alford, D. P. (2017). What do providers want to know about opioid prescribing? A qualitative analysis of their questions. *Substance Abuse*, *38*(2), 222–229. https://doi-org.library.pittstate.edu/10.1080/08897077.2017.1296525.

Ebert, L., Bellchambers, H., Ferguson, A., & Browne, J. (2014). Socially disadvantaged women's views of barriers to feeling safe to engage in decision-making in maternity care. *Women and Birth*, *27*(2), 132-137. doi:10.1016/j.wombi.2013.11.003.

Fragassi, P. A. (2018). Creating a community of support for children and families affected by opioid dependence: Identifying and addressing gaps in maternal--fetal care. *Zero to Three*, *38* (5), 29-38. ERIC number: EJ1179531

Gopman, S. (2014). Prenatal and postpartum care of women with substance use disorders. *Obstetrics and Gynecology Clinics of North America*, *41*(2), 213-228. doi: 10.1016/j.ogc.2014.02.004

Haight, S. C., Ko, J. Y., Tong, V. T., Bohm, M. K., & Callaghan, W. M. (2018). Opioid use disorder documented at delivery hospitalization: United States, 1999–2014. *MMWR. Morbidity and Mortality Weekly Report*, *67*(31), 845-849. doi:10.15585/mmwr.mm6731al.

Howard, H. (2015). Reducing stigma: Lessons from opioid-dependent women. *Journal of Social Work Practice in the Addictions, 15*(4), 418-438. doi:10.1080/1533256X.2015.1091003.

Kao, A. C., Green, D. C., Davis, N. A., Koplan, J. P., & Cleary, P. D. (1998). Patients' trust in their physicians: Effects of choice, continuity, and payment method. *Journal of General Internal Medicine, 13*(10), 681–686. https://doi.org/10.1046/j.1525-1497.1998.00204.x.

Kotelchuck, M., Cheng, E. R., Belanoff, C., Cabral, H. J., Babakhanlou-Chase, H., Derrington, T. M., Diop, H., Evens, S. R., & Bernstein, J. (2017). The prevalence and impact of substance use disorder and treatment on maternal obstetric experiences and birth outcomes among singleton deliveries in Massachusetts. *Maternal and Child Health Journal, 21*(4), 893-902. doi: 10.1007/s10995-016-2190-y.

Lee King, P., Duan, L., & Amaro, H. (2015). Clinical needs of in-treatment pregnant women with co-occurring disorders: Implications for primary care. *Maternal and Child Health Journal, 19*(1), 180-187. doi:10.1007/s10995-014-1508-x.

Lexico. (n.d.). *Maternal*. https://www.lexico.com/en/definition/maternal.

MedlinePlus. (2019, March 7). *Substance use disorder*. https://medlineplus.gov/ency/article/001522.htm.

Milligan, K., Usher, A. M., & Urbanoski, K. A. (2017). Supporting pregnant and parenting women with substance-related problems by addressing emotion regulation and executive function needs. *Addiction Research & Theory, 25*(3), 251-261. https://doi.org/10.1080/16066359.2016.1259617.

Moralle, M. R., Preston, J. S., Chen, L., & Berberian, W. S. (2016). An exploratory study of empathy in resident physicians at an urban medical center. *International Journal of Caring Sciences, 9*(2), 526. http://www.internationaljournalofcaringsciences.org/docs/18_Moralle_orignal-9-2.pdf.

Mora-Ríos, J., Ortega-Ortega, M., & Medina-Mora, M. E. (2017). Addiction-related stigma and discrimination: A qualitative study in treatment centers in Mexico City. *Substance Use & Misuse, 52*(5), 594–603. https://doi-org.library.pittstate.edu/10.1080/10826084.2016.1245744.

National Center for Health Statistics. (2019). *Provisional Drug Overdose Data.* National Vital Statistics System, Vital Statistics Rapid Release. https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm.

Ober, A. J., Watkins, K. E., Hunter, S. B., Ewing, B., Lamp, K., Lind, M., Becker, K., Heinzerling, K., Osilla, K. C., Diamant, A. L., & Setodji, C. M. (2017). Assessing and improving organizational readiness to implement substance use disorder treatment in primary care: Findings from the SUMMIT study. *BMC Family Practice, 18*, Article 107. doi:10.1186/s12875-017-0673-6.

Petiprin, A. (2016). *Erickson's modeling and role modeling theory*. https://nursing-theory.org/theories-and-models/erickson-modeling-and-role-modeling-theory.php.

Pitt, A. L., Humphreys, K., & Brandeau, M. L. (2018). Modeling health benefits and harms of public policy responses to the US opioid epidemic. *American Journal of Public Health, 108*(10), 1394-1400. doi: 10.2105/AJPH.2018.304590.

Press, K. R., Zornberg, G. Z., Geller, G., Carrese, J., & Fingerhood, M. I. (2016). What patients with addiction disorders need from their primary care physicians: A qualitative study. *Substance Abuse*, *37*(2), 349–355. https://doi-org.library.pittstate.edu/10.1080/08897077.2015.1080785.

Sahker, E., Sahker, E., McCabe, J. E., McCabe, J. E., Arndt, S., & Arndt, S. (2016). Differences in successful treatment completion among pregnant and non-pregnant American women. *Archives of Women's Mental Health*, *19*(1), 79-86. https://doi.org/10.1007/s00737-015-0520-5.

Segal, E. A., & Wagaman, M. A. (2017). Social empathy as a framework for teaching social justice. *Journal of Social Work Education, 53*(2), 201-211. doi:10.1080/10437797.2016.1266980.

Smith, K. E., Norman, G. J., & Decety, J. (2017). The complexity of empathy during medical school training: Evidence for positive changes. *Medical Education, 51*(11), 1146-1159. https://doi.org/10.1111/medu.13398.

Smyth, B. P., Barry, J., Keenan, E., & Ducray, K. (2010). Lapse and relapse following inpatient treatment of opiate dependence. *Irish Medical Journal*, *103*(6), 176-179. PMID: 20669601

Staszewski, C., Herrera, K., Persad, M. D., Ly, V., Garretto, D., Davis, J., & Garry, D. J. (2019). 313: Medication-assisted treatment (MAT) in pregnancy: Methadone and buprenorphine. *American Journal of Obstetrics and Gynecology*, *220*(1), S219-S220. https://doi.org/10.1016/j.ajog.2018.11.334.

Stone, R. (2015). Pregnant women and substance use: Fear, stigma, and barriers to care. *Health & Justice*, *3*(2), 1-15. https://doi.org/10.1186/s40352-015-0015-5.

Stringer, K. L., & Baker, E. H. (2018). Stigma as a barrier to substance abuse treatment among those with unmet need: An analysis of parenthood and marital status. *Journal of Family Issues, 39*(1), 3-27. doi:10.1177/0192513X15581659.

Suchman, N. E., & DeCoste, C. L. (2018). Substance abuse and addiction: Implications for early relationships and interventions. *Zero to Three, 38*(5), 17-22. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/30662145.

Sword, W., Heaman, M. I., Brooks, S., Tough, S., Janssen, P. A., Young, D., Kingston, D., Helewa, M. E., Akhtar-Danesh, N., & Hutton, E. (2012). Women's and care providers' perspectives of quality prenatal care: a qualitative descriptive study. *BMC Pregnancy & Childbirth*, *12*(1), 29. https://doi-org.library.pittstate.edu/10.1186/1471-2393-12-29.

Traube, D. E., He, A. S., Zhu, L., Scalise, C., & Richardson, T. (2015). Predictors of substance abuse assessment and treatment completion for parents involved with child welfare: One state's experience in matching across systems. *Child Welfare, 94*(5), 45. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/26827464.

U.S. Department of Health and Human Services Health Resources and Services Administration (2020). *Caring for women with opioid use disorder: A toolkit for organization leaders and providers*. HRSA Office of Women's Health. Retrieved from https://www.hrsa.gov/sites/default/files/hrsa/Caring-for-Women-with-Opioid-Disorder.pdf.

United States Department of Health & Human Services. (2017, October 26). *HHS acting secretary declares public health emergency to address national opioid crisis*

[Press release] https://www.hhs.gov/about/news/2017/10/26/hhs-acting-secretary-declares-public-health-emergency-address-national-opioid-crisis.html.

Van Scoyoc, A., Harrison, J., & Fisher, P. (2017). Beliefs and behaviors of pregnant women with addictions awaiting treatment initiation. *Child and Adolescent Social Work Journal, 34*(1), 65-79. doi:10.1007/s10560-016-0474-0.

Velez, M., & Jansson, L. M. (2008). The opioid dependent mother and newborn dyad: Non-pharmacologic care. *Journal of Addiction Medicine, 2*(3), 113.

Vendetti, J., Gmyrek, A., Damon, D., Singh, M., McRee, B., & Del Boca, F. (2017). Screening, brief intervention and referral to treatment (SBIRT): Implementation barriers, facilitators and model migration. *Addiction (Abingdon, England), 112*(S2), 23-33. https://doi.org/10.1111/add.13652.

Walter, T., Ford, A., Templeton, L., Valentine, C., & Velleman, R. (2017). Compassion or stigma? How adults bereaved by alcohol or drugs experience services. *Health & Social Care in the Community, 25*(6), 1714-1721. https://doi.org/10.1111/hsc.12273.

Wiig, E. M., Halsa, A., & Haugland, B. S. M. (2017). Social support available for substance-dependent mothers from families with parental substance abuse. *Child & Family Social Work, 22*(3), 1246-1254. https://doi.org/10.1111/cfs.12341.

Williams, M. A., Muir, S., Padalino, L., Casey, B. M., Perez, W. M., Mazzoni, S., & Harper, L. M. (2020). 671: Healthcare care providers' roles and attitudes towards substance use disorder during pregnancy. *American Journal of Obstetrics & Gynecology, 222*(1), S427. https://doi-org.library.pittstate.edu/10.1016/j.ajog.2019.11.686.

Winkelman, T. N. A., Villapiano, N., Kozhimannil, K. B., Davis, M. M., & Patrick, S. W. (2018). Incidence and costs of neonatal abstinence syndrome among infants with Medicaid: 2004–2014. *Pediatrics, 141*(4), e20173520. doi:10.1542/peds.2017-

APPENDIX

Appendix A

Reducing the Stigma Associated with Maternal Substance Use Disorder

In A Rural Midwest Hospital and Clinic

Pre-Test Survey

Demographics

1. What is your role in healthcare?
   A. OBGYN
   B. Family Practice Physician
   C. Registered or Licensed Nurse
   D. Pediatrician
   E. Nurse Practitioner
   F. Nurse Midwife
   G. Would Rather Not Say

2. How many years have you been in this role?
   A. 0-1 year
   B. 2-5 years
   C. 6-10 years
   D. 10+ years
   E. Would Rather Not Say

3. Do you have a family member or close friend with Substance Use Disorder?
   A. Yes
   B. No
   C. Would Rather Not Say

Provider Awareness Associated with Maternal Substance Use Disorder

On a scale of 1-10, with 1 being the least amount and 10 being the most, please rate the following:

1. How much do you know about Maternal Substance Use Disorder?

   1 2 3 4 5 6 7 8 9 10

2. How much do you know about the perceived stigma associated with Maternal Substance Use Disorder?

   1 2 3 4 5 6 7 8 9 10

3. How would you rate your level of confidence in communicating with people with Substance Use Disorder?

   1 2 3 4 5 6 7 8 9 10

4. How important are role models to patients with Maternal Substance Use Disorder?

   1 2 3 4 5 6 7 8 9 10

Please rate how strongly you agree or disagree with the following statements, with 1 being strongly disagreeing and 10 strongly agreeing.

5. Those with Substance Use Disorder are to blame for the problem.

   1 2 3 4 5 6 7 8 9 10

6. Those with Substance Use Disorder are responsible for their own health.

   1 2 3 4 5 6 7 8 9 10

7. Substance Use Disorder is a treatable chronic disease.

   1 2 3 4 5 6 7 8 9 10

Self-Perceived Stigma Scale

On a scale of 1-10, with 1 being the least amount and 10 being the most, please rate the following:

8. How would you rate your personal stigma related to Maternal Substance Use Disorder patients?

   1 2 3 4 5 6 7 8 9 10

9. Do you feel you treat Maternal Substance Use Disorder patients differently?

   1 2 3 4 5 6 7 8 9 10

Please rate how strongly you agree or disagree with the following statements, with 1 being strongly disagreeing and 10 strongly agreeing.

10. Stigma is a health determinant for people with Maternal Substance Use Disorder.

    1 2 3 4 5 6 7 8 9 10

Clinical Practice

Please rate how strongly you agree or disagree with the following statements, with 1 being strongly disagreeing and 10 strongly agreeing.

11. I consider myself to be a role model for my colleagues.

    1 2 3 4 5 6 7 8 9 10

12. I would like to be a role model for your colleagues.

    1 2 3 4 5 6 7 8 9 10

13. I will make practice changes regarding Maternal SUD treatment.

    1 2 3 4 5 6 7 8 9 10

14. Please write any other questions, concerns, or comments you may have regarding your current practice and/or Maternal Substance Use Disorder treatment.

Appendix B

Reducing the Stigma Associated with Maternal Substance Use Disorder

In A Rural Midwest Hospital and Clinic

Post-Test Survey

Provider Awareness Associated with Maternal Substance Use Disorder

On a scale of 1-10, with 1 being the least amount and 10 being the most, please rate the following:

1. How much do you know about Maternal Substance Use Disorder?
   1 2 3 4 5 6 7 8 9 10

2. How much do you know about the perceived stigma associated with Maternal Substance Use Disorder?
   1 2 3 4 5 6 7 8 9 10

3. How would you rate your level of confidence in communicating with people with Substance Use Disorder?
   1 2 3 4 5 6 7 8 9 10

4. How important are role models to patients with Maternal Substance Use Disorder?

   1 2 3 4 5 6 7 8 9 10

Please rate how strongly you agree or disagree with the following statements, with 1 being strongly disagreeing and 10 strongly agreeing.

5. Those with Substance Use Disorder are to blame for the problem.

   1 2 3 4 5 6 7 8 9 10

6. Those with Substance Use Disorder are responsible for their own health.

   1 2 3 4 5 6 7 8 9 10

7. Substance Use Disorder is a treatable chronic disease.

   1 2 3 4 5 6 7 8 9 10

Self-Perceived Stigma Scale

8. On a scale of 1-10, with 1 being the least amount and 10 being the most amount, please rate the following: How would you rate your personal stigma related to Maternal Substance Use Disorder patients?

   1 2 3 4 5 6 7 8 9 10

9. Do you feel you treat Maternal Substance Use Disorder patients differently?

   1 2 3 4 5 6 7 8 9 10

Please rate how strongly you agree or disagree with the following statements. With 1 being strongly disagreeing and 10 strongly agreeing.

10. Stigma is a health determinant for people with Maternal Substance Use Disorder.

    1 2 3 4 5 6 7 8 9 10

Clinical Practice

Please rate how strongly you agree or disagree with the following statements. With 1 being strongly disagreeing and 10 strongly agreeing.

11. I consider myself to be a role model for my colleagues.

    1 2 3 4 5 6 7 8 9 10

12. I would like to be a role model for your colleagues.

    1 2 3 4 5 6 7 8 9 10

13. I will make practice changes regarding Maternal SUD treatment.

    1 2 3 4 5 6 7 8 9 10

14. Please write any other questions, concerns, or comments you may have regarding your current practice and/or Maternal Substance Use Disorder treatment.

Appendix C

Educational Resource

Maternal Substance Use Disorder: Reducing the *Stigma*

Definitions

Maternal- Relating to a mother, especially during pregnancy or shortly after childbirth (Lexico, n.d., para. 1).

Substance Use Disorder- When a person's use of alcohol or another (drug) leads to health issues or problems at work, school, or home (MedlinePlus, 2019, para.1). The general term 'drug' is defined as any substance, stimulating or depressing, that can be habituating or addictive, especially a narcotic (The Free Dictionary by Farflex, n.d., para. 1).

Stigma- a social scale that devalues and dehumanizes a person. Stigma can be perceived as both internal and external (Goffman as cited in Howard, 2015; Howard, 2015, p. 422).

Treating an Epidemic During a Pandemic.

In 2017, Acting Secretary of Health and Human Services, Eric Hargan determined that a public health emergency existed nationwide due to the opioid crisis (United States Department of Health and Human Services, 2017). In May of that year, 68,000 American deaths were reported due to overdose ("Products – Vital Statistics Rapid Release – Provisional Drug Overdose Data", 2019).

On March 11, 2020, the World Health Organization (WHO) declared the coronavirus outbreak a pandemic (Tedros, 2020). This crisis, combined with the opioid epidemic, continues to escalate with over 79,000 overdoses reported in May of 2020 ("Products - Vital Statistics Rapid Release - Provisional Drug Overdose Data", 2021).

The pandemic is predicted to have a significant negative impact on the mental health of Americans. Women in their childbearing age are not excluded from this epidemic pandemic! Now is the time to aggressively address practice change related to mental health disease.

Statistics...

1. Maternal Substance Use Disorder Deliveries quadrupled from 1999 to 2014 (Haight et al. 2018).
2. Neonatal Abstinence Syndrome Admits increased more than fivefold from 2004 to 2014 (Winkelman et al., 2018).
3. Children in state care, related to parental substance use, increased 16.8% from 2000-2016 ("Child Welfare and Alcohol & Drug Use Statistics | National Center on Substance Abuse and Child Welfare (NCSACW)", 2021).

Knowledge is Power!

Substance Use Disorder is a complex, chronic, but treatable Disease. Pregnancy provides a unique 'Window of Opportunity' for these women to receive treatment. Maternal healthcare providers well educated in the neurobiological mechanisms of SUD are better prepared to address these complex issues. Patients screened and treated for SUD are more likely to be compliant with treatment plans and have positive healthcare outcomes.

Reduce the Stigma!

Provider Self-Care

Take Breaks

Practice Positive Thinking

Use Relaxation Techniques

Recognize Your Limitations

Increase Knowledge

Collaborate with Colleagues

Seek a Role Model

Utilize Resources within the Community

"I felt a ton of guilt. I had to think about all the things I had done before..."

-Wendy

"Offer the care regardless of race, nationality, religion, culture, gender, age, socioeconomic status, political conditions, physical or mental illness, or any other factor: and strive to eliminate injustice and inequality in society."

-Zahedi (2013)

Utilizing Proper Terminology.

Turns out, words really do hurt!

Words can be a major deterrent to seeking and keeping healthcare appointments. From the first call to schedule their appointment to the minute they walk into the facility, patients begin 'testing the waters' of the patient- provider trust relationship. As soon as Maternal SUD patients enter the facility, they become vulnerable to judgement not only by staff but also other patients. With a heightened sense of anxiety, extreme caution should be used to make this population not only feel welcomed but safe.

Evidenced Based Guidelines.

American College of Obstetrician and Gynecologists Recommendations:

1. Universal first prenatal visit screening
2. Screening with validated questionnaires
3. Nonpharmacologic pain management
4. Pharmacotherapy withdrawal management
5. Neonatal abstinence syndrome monitoring
6. Modified prenatal screenings for increased risks
7. Discuss risk and benefits prior to opioid prescribing
8. Review drug monitoring programs
9. Encourage stable women to breastfeed
10. Postpartum psychosocial support
11. Contraceptive counseling (Committee on Obstetric Practice, 2017).

Terms that Stigmatize	Medically Correct Terms
User/Abuser/Junkie	Person with Substance use Disorder
Addicted	Substance Dependence
Clean/Dirty	Negative/Positive/Substance Free
Od'd/Relapsed	Reoccurrence
In Recovery	Addiction Survivor

If you lead,

I will Follow!!

Role Models.

There is a lack of leadership and confidence among physicians in their ability to treat SUD (Ober et al, 2017). Confidence is directly related to knowledge (Cross-Sudworth et al., 2015). Maternal SUD team members are approachable, utilize positive thinking, and dispute myths. They use open-ended questions and are responsive to patients' readiness to engage in treatment.

Additional Resources.

American Society of Addiction Medicine ASAM: https://www.asam.org/

American College of Obstetrician and Gynecologists ACOG: https://www.acog.org/

Substance Abuse and Mental Health Services Administration SAMHSA: https://www.samhsa.gov/

National Institute on Drug Abuse NIDA: https://www.drugabuse.gov/

References

Centers for Disease Control and Prevention. (2021). Products - vital statistics rapid release - provisional drug overdose data. Retrieved 6 February 2021, from https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm.

Committee on Obstetric Practice. (2017). Committee opinion no. 711: Opioid use and opioid use disorder in pregnancy. *Obstetrics & Gynecology, 130*(2), e81-e94. doi:10.1097/AOG.0000000000002235.

Cross-Sudworth, F., Williams, M., & Gradosi, J. (2015). Community midwifery care and social care pathways. *Evidence-Based Midwifery (Royal College of Midwives), 13*(1), 15. Retrieved from https://search.proquest.com/docview/1679253729.

Excerpt from "Howard, H. (2015). Reducing stigma: Lessons from opioid-dependent women. *Journal of Social Work Practice in the Addictions, 15*(4), 418-438. doi:10.1080/1533256X.2015.1091003".

The Free Dictionary by Farflex. (n.d.) *Drug*. Retrieved 8 November 2019, from https://www.thefreedictionary.com/Dr%C3%BBg.

Haight, S. C., Ko, J. Y., Tong, V. T., Bohm, M. K., & Callaghan, W. M. (2018). Opioid use disorder documented at delivery hospitalization — United States, 1999–2014. *MMWR. Morbidity and Mortality Weekly Report, 67*(31), 845-849. doi:10.15585/mmwr.mm6731a1.

Howard, H. (2015). Reducing stigma: Lessons from opioid-dependent women. *Journal of Social Work Practice in the Addictions, 15*(4), 418-438. doi:10.1080/1533256X.2015.1091003.

Lexico. (n.d.). *Maternal*. Retrieved 8 November 2019, from https://www.lexico.com/en/definition/maternal.

MedlinePlus. (2019, March 7). *Substance use disorder* (2019, March 07). https://medlineplus.gov/ency/article/001522.htm.

National Center for Health Statistics. (2019). *Products - Vital Statistics Rapid Release - Provisional Drug Overdose Data.* Centers for Disease Control and Prevention. https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm.

Ncsacw.samhsa.gov. 2021. *Child welfare and alcohol & drug use statistics | national center on substance abuse and child welfare (NCSACW)*. [online] Available at: <https://ncsacw.samhsa.gov/research/child-welfare-and-treatment-statistics.aspx> [Accessed 5 February 2021].

Ober, A. J., Watkins, K. E., Hunter, S. B., Ewing, B., Lamp, K., Lind, M., Becker, K., Heinzerling, K., Osilla, K. C., Diamant, A. L., Setodji, C. M. (2017). Assessing and improving organizational readiness to implement substance use disorder treatment in primary care: Findings from the SUMMIT study. *BMC Family Practice, 18*, 1-13. doi:10.1186/s12875-017-0673-6.

Tedros, T. A. (2020, March 11). WHO Director-General's opening remarks at the media briefing on COVID-19. https://doi.org/10.23750/abm.v91i1.9397.

United States Department of Health & Human Services. (2017, October 26). *HHS acting secretary declares public health emergency to address national opioid crisis* [Press release] https://www.hhs.gov/about/news/2017/10/26/hhs-acting-secretary-declares-public-health-emergency-address-national-opioid-crisis.html.

Winkelman, T. N. A., Villapiano, N., Kozhimannil, K. B., Davis, M. M., & Patrick, S. W. (2018). Incidence and costs of neonatal abstinence syndrome among infants with Medicaid: 2004–2014. *Pediatrics, 141*(4), e20173520. doi:10.1542/peds.2017-3520.

Zahedi, F., Sanjari, M., Aala, M., Peymani, M., Aramesh, K., Parsapour, A., Bagher Maddah, SS., Cheraghi, MA., Mirzabeigi, GH., Larijani, B., Vahid Dastgerdi, M. (2013). The code of ethics for nurses. *Iranian Journal of Public Health, 42*(Supple1),1-8.

Appendix D

CRMC Letter of Cooperation

Letter of Cooperation

Date: 03/16/2021

Institutional Review Board
Pittsburg State University
1701 S Broadway St
Pittsburg, KS 66762

Dear IRB Members,

After reviewing the proposed Scholarly Quality Improvement Project, "Reducing the Stigma Associated with Maternal Substance Use Disorder", presented by Jami Vineyard, I have granted authorization for Jami Vineyard to conduct a Quality Improvement Project at our Facility. This letter confirms that I, as an authorized representative of Coffeyville Regional Medical Center, allow Jami Vineyard access to conduct study-related activities at the listed site(s), as outlined below.

- Project Site(s): Coffeyville Regional Medical Center, 1400 W 4th st., Coffeyville, KS 67337, CRMC Medical Group Women's Health Clinic 1717 W 8th st,. Coffeyville, KS 67337, CRMC Medical Group Indpendence Clinic, 122 W Myrtle st. Independence, KS 67301
- Project Purpose: The purpose of this scholarly project is to educate providers on the importance of reducing the stigma associated with maternal SUD, more specifically, the stigma perceived by healthcare providers in a Midwest regional hospital and clinic.
- Project Activities: An email including a brief description of the study and an invitation to participate will be sent to Coffeyville Regional Medical Center Women's Health Unit and Women's Health Clinic employees. This will include nurses, obstetric gynecological physicians, a pediatrician, a family practice physician, and a nurse practitioner. Those that reply interested in the study and meet the inclusion and exclusion requirements will be emailed a link to the pre-test. Following the pre-test, an electronic handout will be provided followed by a post-test. The pre-test and post-test results will be compared to determine if the educational handout decreased the healthcare providers' stigma associated with maternal substance use disorder and increased their knowledge of the disease.
- The site (s) Support: CRMC agrees to provide space to conduct study activities, and assistance with mass emails to the above listed clinics.
- Data Management: Data regarding analysis of pre and post tests will be collected. It has been agreed that no associate names will be collected or disclosed.I understand that this site's participation will only take place during the study's active Institutional Review Board (IRB) approval period. All study-related activities must cease if IRB approval expires or is suspended. I understand that participation will be voluntary; Coffeyville Regional Medical Center's associates will not be penalized or rewarded for their participation.

Coffeyville Regional Medical Center
www.crmcinc.org

If the IRB has any concerns about the permission being granted by this letter, please contact me by email at sarah@crmcinc.org.

Sincerely,

Chief Nursing Officer
Title

Sarah M Hoy
Printed Name

3/18/21
Signature Date

1400 West Fourth Street - Coffeyville, KS 67337 - 620-251-1200
Your partner in health.

Appendix E

IRB Forms

Pittsburg State University
Application for Approval of Investigations
Involving the Use of Human Subjects

This application must be completed by the Investigator and sent to the Academic Affairs by the first Tuesday of the month during the fall and spring academic semesters to be considered for full review on the second Tuesday of the month.

Expedited and exempt reviews can be turned in any time. For questions about the review process contact Cindy Johnson at 620-235-4175 or at irb@pittstate.edu.

1. Investigator(s) Name(s): Jami Vineyard
2. Department: Irene Ransom Bradley School of Nursing
3. Local Address: [redacted]
4. Phone: [redacted]
5. E-Mail Address: [redacted]@gus.pittstate.edu
6. Project Title: Reducing the Stigma Associated with Maternal Substance Use Disorder in a Rural Midwest Hospital and Clinic
7. Expected Completion Date: May 2022
8. Expected Starting Date: August 2021
9. Application review type. Use review criteria in Form CR-1 to determine category. Check all that apply.

☐ Full Review	☐ Protocol Change	☑ Thesis/Special Investigation
☐ Expedited Review	☐ Continued Review	☐ Faculty Research
☑ Exempt Review	☐ External Support	☑ Publish Research
☐ A Class Project	☐ Research in Foreign Country	

10. If notification of human subject approval is required give date required: N/A

    Name of agency: _____

11. If you are a student, complete the following:

    Faculty Sponsor: Dr. Amanda Alonzo

    Department: Irene Ransom Bradley School of Nursing

    Phone: [redacted]

When submitting to an external IRB, a full copy of that application must be submitted to the PSU IRB as well.

CERTIFICATION AND APPROVAL

Certification by Investigator: I certify that (a) the information presented in this application is accurate, (b)only the procedures approved by the IRB will be used in this project, (c)modifications to this project will be submitted for approval prior to use, and that all guidelines outlined in the PSU Policy and Assurance Handbook for the Protection of Human Research Subjects will be followed as well as all applicable federal, state and local laws regarding the protection of human subjects in research as outlined in Form VA-1.

Jenn Vinyard RN — Signature of Investigator

4-17-21 — Date

Faculty Sponsor: If the investigator is a student, his/her Faculty Sponsor must approve this application. I certify that this project is under my direct supervision and that I accept the responsibility for ensuring that all provisions of approval are met by the investigator.

Amanda Wagner PhD PMHNP-BC — Signature of Faculty Sponsor

4-17-21 — Date

Department Review Committee Chair: I acknowledge that this research is in keeping with the standards set by our department, university, state and federal agencies and I assure that the student principal investigator has met all departmental requirements for review and approval of this research.

Signature of Department Review Committee Chairperson

4-26-21 — Date

Institutional Review Board Chairperson

04/30/21 — Date

I. Description of the Subjects (If advertising for subjects, include a copy of the proposed advertisement.)

A. How many subjects will be involved? 30

B. Subject Population (check all that apply):

- [x] Adults
- [ ] Prisoners
- [ ] Minors
- [ ] Intellectual Disability
- [ ] Physically Ill
- [ ] Disabled
- [ ] Special Education
- [ ] Other (explain):

C. For projects conducted in schools or school settings, written approval from the School Administrator must be obtained. Please attach to end of this application.

What grade are the students in? N/A

Approximate Age of Students? N/A

How many classes involved? N/A

What subject: (secondary)? N/A

Location: N/A

Name of School: N/A

D. What criteria will be used to select subjects AND/OR what criteria will be used to exclude individuals? (e.g., age, sex, race, ethnic origin, religion, or any social or economic qualifications)? State why the selection will be made on the basis or bases given.

Inclusion criteria will include current employees of Coffeyville Regional Medical Center Women's Health Unit, Women's Health Clinic, and Family Practice Pediatrics with a valid health care professional license, working email address, and direct patient contact of maternal substance use disorder patients. This will include registered nurses, obstetric gynecological physicians, a pediatrician, a family practice physician, and a nurse practitioner. Participants must also be at least eighteen years of age and speak English as their primary language.

The study will not include vulnerable subjects including mentally disabled individuals, children, or prisoners. It will not discriminate against specific populations due to race, religion, or ethnicity. Those who do not hold a valid health care professional license or speak English will be excluded.

II. Abstract: Describe the purpose of the research and summarize the strategies used to collect data and protect participants.

The purpose of this scholarly project is to educate providers on the importance of reducing the stigma associated with maternal Substance Use Disorder (SUD), more specifically, the stigma perceived by healthcare providers in a Midwest regional hospital and clinic. This will result in increased patient-provider trust, patient compliance, and increased positive healthcare outcomes. Improving the mother's overall health and state of mind will help restore family dynamics which will also improve the health and wellbeing of the children that are under the mother's care. A quantitative research design will be used for this study. There will be no control group; therefore, it will be a quasi-experimental study. Qualtrics will be utilized to design a pre-test (See attached) and post-test (See attached). An email including a brief description of the study and an invitation to participate will be sent to Coffeyville Regional Medical Center Women's Health Unit and Women's Health Clinic employees. This will include registered nurses, obstetric gynecological physicians, a pediatrician, a family practice physician, and a nurse practitioner. Those that reply interested in the study and meet the inclusion and exclusion requirements will be emailed a link to the pre-test. Following the pre-test, an electronic handout(See attached) will be provided followed by a post-test. The pre-test and post-test results will be compared to determine if the educational handout decreased the healthcare providers' stigma associated with maternal substance use disorder and increased their knowledge of the disease. Objective data will be examined statistically to answer the project questions.
All participants will be 18 years of age or older. Patient information will not be accessed or utilized for this study. Information obtained from the study will be kept confidential and electronic. No names will be used for this study. Participation in the study will be voluntary. The information gained in the study will not affect employment.

III. Procedure: Activities Involving Human Subjects (Attach additional sheet if needed)

A. Give a brief description or outline of your research procedures as they relate to the use of human subjects.

1. Who will be the subjects? How will you enlist their participation?

The target population for this project will include health care providers with direct contact with maternal substance use disorder patients in a rural community health setting. This will include registered nurses, obstetric gynecological physicians, a pediatrician, a primary care physician, and a nurse practitioner.
The target population will be recruited using convenience sampling. A mass email will be sent to Coffeyville Regional Medical Center Women's Health Unit, Coffeyville Women's Health Clinic, and Coffeyville Regional Medical Center Family Practice Pediatrics employees inviting them to participate in the study. Respondents meeting the inclusion criteria will be included in the study. No compensation will be given to participants.

2. What precisely will be done to the subjects? State instructions given to the subjects, activities in which they will engage, tests and questionnaires (if you are using questionnaires or handouts, please include a copy with this application.)

The subjects will receive an email that includes instructions in a three-step manner. Subjects will start with step one and continue through step three. Step one, subjects will be directed to the pre-test. Step two, subjects will be directed to the electronic educational handout. They will read and review the handout. Step three, subjects will be directed to the post-test.

3. If any of the subjects are minors or "vulnerable" (children, prisoners, mentally or physically disabled, pregnant women), discuss how their special condition will be handled.

None of the subjects are considered "vulnerable".

4. How will subjects be informed of research findings?

The results of the research will be posted in the break room of the Coffeyville Regional Medical Center Women's Health Unit, Coffeyville Women's Health Clinic, and Coffeyville Regional Medical Center Family Practice Pediatrics.

IV. Confidentiality and Anonymity – How will the data be collected? (check all that apply)

- [x] Questionnaires (Submit a copy)
- [ ] Observations (describe how they will be conducted)
- [ ] Interviews (Submit sample questions)
- [ ] Standardized tests (attach a copy if possible; list names)
- [ ] Test (Submit a copy if possible)
- [ ] Task(s) (briefly explain)
- [ ] Video or Audio Tapes
- [ ] Computer Entries (explain)
- [ ] Other in description of above

A. Explain the procedures for collecting, recording and storing that data during the study.

Two electronic questionnaires will be directed to the participants via Qualtrics during the project. The data from Qualtrics will be uploaded onto the researcher's computer to be run by SPSS. The results will then be displayed in the break room of the Coffeyville Regional Medical Center Women's Health Unit, Coffeyville Women's Health Clinic, and Coffeyville Regional Medical Center Family Practice Pediatrics. The SPSS files will be saved on a password protected computer of the principal investigator and the faculty advisor for three years after completion of the project and then deleted.

B. Who will have access to the data during the study? (Access should be limited to protect anonymity of subjects and confidentiality of subject responses)

The principal investigator, and the DNP Scholarly Project Committee (Mandi Alonzo, Kristi Stuck, and Gena Coomes) will have access to the data during the study. Directors at the three cooperating facilities will be given a copy of the final project report only.

C. Explain what will happen to the data once the study is completed. Is there a need to keep the data or will it be destroyed? If kept, how long and where will it be stored, how will confidentiality be ensured, who will have access to it?

The data will be stored on the faculty advisor's password protected computer for three years after the completion of the project. The faculty advisor will be the only one with access to the data after the project.

D. Explain the level of confidentiality you are guaranteeing the participants.

Participation is voluntary, every effort will be made to maintain anonymity. Identifiers will not be utilized during this study. The study material will only be accessed on the researchers locked and password protected laptop computer.

V. **Benefits, Risks, and Costs of this Study**

A. What are the potential benefits to the subjects, to the field or discipline, or to the University?

The benefits of reducing the stigma surrounding Maternal SUD were found to be increased SUD treatment, increased compliance of the healthcare plan and increased positive healthcare outcomes including reduced emergent visits. This will potentialy improve family dynamics, reduce healthcare costs, and decrease the opioid epidemic.

B. Will compensation (money, extra credit, etc.) be offered to the subjects? If so, how will it be dispersed?

No compensation will be offered to the subjects.

C. What risks or discomforts are most likely to be encountered by the subjects? Please consider carefully.

- ☐ Employability
- ☐ Financial or personal reputation
- ☑ Emotional stress or discomfort
- ☑ Loss of confidentiality
- ☐ Physical stress or discomfort
- ☐ Other (explain): _____
- ☐ Deception (benevolent misdirection)
- ☐ Embarrassment
- ☑ Psychological stress or discomfort
- ☐ Criminal or civil liability

D. What safeguards will you use to eliminate or minimize these risks? If there is the possibility of adverse reactions by the subjects, explain where the subjects can receive help.

These risks will be minimized by avoiding identifiers and by using the information for the sole purpose of this project. Participants will be informed and assured that they may stop their involvement in the project at any time if they become uncomfortable.

E. In your opinion, does the research involve **more than minimal risk** to subjects? ("Minimal risk" means "the risks of harm anticipated in the proposed research are not greater, considering probability and magnitude, than those ordinarily encountered in daily life or during the performance of routine or psychological examinations or tests.")

This reserach does not involve more than minimal risk to subjects.

VI. Additional Information or Completion of a Previous Section

N/A

VII. Informed Consent (not needed for exempt review)

Unless authorized by the IRB, no investigator may involve a human being as a subject in research under the auspices of the University unless the investigator has obtained the informed consent of the subject or the subject's legally authorized representative.

Attach a copy of all consent documents that will be used to this application.

For further information about informed consent processes review the information on the Grants and Research web page in the Forms for Research Involving Human subjects.

A. Explain the procedures that will be used to obtain consent:

Since this project in exempt, informed consent will be assumed by the participants participation in the project by responding to the email invitation to the project, filling out the surveys and reviewing the educational handout.

B. Federal regulations state that the following elements of information should be provided to each subject. Place a check mark before each component included in your consent document.

☐ An explanation of the purpose of the project and the expected duration of the subject's participation.

☐ An explanation of the activities or procedures to be followed.

☐ A description of any risks or discomforts to the subject.

☐ A description of any benefits of the project to the subject or to others.

☐ A statement that participation in this project is voluntary and the subject may withdraw at any time.

☐ A statement describing the extent to which confidentiality of records identifying the subject will be maintained.

☐ An explanation of whom to contact with questions regarding the study.

1. Explain request for waiver of any component listed above or other special conditions related to informed consent.

PITTSBURG STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD

Verification of Assurance Form

PRINCIPAL INVESTIGATOR ASSURANCE

I understand that as Principal Investigator, I have ultimate responsibility for the protection of the rights and welfare of human subjects and the ethical conduct of this research for which this application has been submitted.

I agree to comply with all PSU policies and procedures, as well as with all applicable federal, state, and local laws regarding the protection of human subjects in research, including, but not limited to, the following:

- Title 45, Part 46 of the Code of Federal Regulations.
- The Belmont Report, *Ethical Principles and Guidelines for the Protection of Human Subjects and Research.*
- The project will be performed by qualified personnel according to the research protocol.
- Maintaining a copy of all questionnaires, survey instruments, interview questions, data collection instruments, and information sheets for human subjects in the respective department.
- Necessary review by the PSU Institutional Review Board will be sought if changes made in the research protocol may result in the research no longer meeting the original approved criteria.
- The Principal Investigator has completed the NIH Protection of Human Research Subjects On-Line Training Program.
- The Principal Investigator has read and understands the PSU Assurance Handbook concerning human subjects research protocols.

Form VA-1