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Increasing Knowledge of Evidence-Based Practices for the Management of Perinatal Depression: An Educational Module Among Healthcare Providers

Isis de Armas

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PERINATAL DEPRESSION MANAGEMENT

Increasing Knowledge of Evidence-Based Practices for the Management of Perinatal Depression:

An Educational Module Among Healthcare Providers


A Scholarly Project Presented to the Faculty of the
Nicole Wertheim College of Nursing and Health Sciences

Florida International University

In partial fulfillment of the requirements
For the Degree of Doctor of Nursing Practice

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Abstract

Perinatal depression may occur during the prenatal period, at birth, or postpartum. Women suffering from this condition experience extreme sadness, fatigue, and anxiety, making it challenging to perform daily tasks and care for themselves or others. Despite the rising prevalence of perinatal mental health issues in the healthcare system, studies indicate a paucity of knowledge among physicians and other clinicians in this field. To bridge this gap, the purpose of this quality improvement project was to increase knowledge and awareness among healthcare providers of evidence-based practices in depression management for expectant mothers in an outpatient clinic in Miami, Florida. A pretest and posttest study design was used to conduct this quality improvement project. Qualtrics was used for collecting demographic data and administering the pre-test and post-test surveys among a total of four participants. Data were analyzed using the Statistical Package for Social Sciences (SPSS). The QI project results indicated that the pre-test and post-test mean scores were not significantly different, $t(4) = 0.42366$, with a $p = 0.068$, ($p > 0.05$). These results were likely due to the small sample size, and readers should be cautious when interpreting the findings of this project. Addressing the knowledge gaps can ensure healthcare providers are better equipped to manage depression in perinatal care, leading to improved patient outcomes. Future research should focus on broader and more diverse populations, and long-term assessments to ensure that educational interventions have a lasting impact on both the clinician's practice and patient's health outcome.

Keywords: expectant mothers, perinatal, depression, mental health, healthcare providers

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Introduction

Perinatal depression may occur during the prenatal period, at birth, or postpartum in the weeks after giving birth to a child. In the majority of instances, perinatal depression develops within 4 to 8 weeks after the baby is born (National Institute of Mental Health, 2023). Women suffering from this condition experience extreme sadness, fatigue, and anxiety, making it challenging to perform daily tasks and care for themselves or others (National Institute of Mental Health, 2023). During the perinatal period, mental health problems are quite common among women, with depression being one of the most common issues. According to the data provided by the World Health Organization (WHO), over 10% of women in developed high-income Western countries and nearly 30% in low- or middle-income countries experience perinatal depression (Garthus-Niegel et al., 2022).

Maternal depression may negatively impact labor, birth, and breastfeeding and increase the risk of delayed fetal development, behavioral and emotional problems, psychopathology, attention deficit hyperactivity disorder, impaired cognitive development in a child, low-weight and premature birth, and prenatal and perinatal complications including spontaneous abortion, placental abnormalities, and preeclampsia (Dagher et al., 2021). Even when the treatment for perinatal depression is available, many mothers are reluctant to seek therapy and help because they feel guilt or shame, fear stigma, or lack awareness of the symptoms and implications of a failure to treat this condition for maternal and pediatric health and well-being (Garthus-Niegel et al., 2022). In the United States, 50% to 70% of women with antenatal and postpartum depression are undetected and undiagnosed, while almost 85% do not receive treatment for this condition (Dagher et al., 2021). Therefore, routine screening for perinatal depression might be beneficial for women and their families to detect problems at early stages.

Although there is no consensus about the exact prevalence of perinatal depression, scholars agree that this mental health condition is quite widespread. According to one of the recent epidemiological reports, the prevalence of perinatal depression is 12.4% during pregnancy and 9.6% postpartum (Byatt et al., 2019). The average prevalence of prenatal depression globally stands at 7%-12%, while in the United States (U.S.), its prevalence ranges between 15% and 20% (Sidebottom et al., 2021). Therefore, the high prevalence of perinatal depression calls for adopting adequate screening practices and equipping clinicians with the knowledge and skills necessary to screen for, diagnose, and manage perinatal depression using evidence-based interventions.

Untreated perinatal depression can have severe and costly adverse repercussions for the well-being of patients, children, and their families. In addition, perinatal depression may lead to maternal suicide, infanticide, psychiatric disorders, and poor infant development. It is necessary to note that although maternal suicide accounts for 20% of postpartum fatalities, only 16% of perinatal women receive psychiatric care (Byatt et al., 2019). The American College of Obstetricians and Gynecologists (ACOG, 2023), in collaboration with the American Academy of Pediatricians (AAP), has recommended universal screening for maternal depression by qualified clinicians. However, clinicians face barriers to care delivery due to their insufficient knowledge of depression screening and how to respond to depression signs and symptoms. The purpose of this quality improvement project was to increase knowledge and awareness among healthcare providers of evidence-based practices (EBP) in depression management for expectant mothers in an outpatient clinic in Miami, Florida.

Problem Statement

Depression has a negative impact on expectant mothers and their families, as well as a critical impact on the emotional, psychological, and physical health of the child (Waqas et al., 2022). Despite the rising prevalence of perinatal mental health issues in the healthcare system, studies indicate a paucity of knowledge among physicians and other clinicians in this field, negatively impacting the care of women who suffer from perinatal depression (Poo et al., 2023; Reilly et al., 2020; Sidebottom et al., 2021). Less than 10% of healthcare practitioners had confidence in diagnosing perinatal depression in a study (Reilly et al., 2020). The same study reported that more than 70% of the healthcare providers had inadequate training on perinatal depression (Reilly et al., 2020). Consequently, increased incidences of suicidal behavior and impaired maternal-child bonding have been reported among women with psychiatric problems during pregnancy (Hoffman, 2021). However, the promotion of awareness and improvement in knowledge among clinicians on evidence-based practices in the management of depression in this vulnerable group is a noble endeavor. Currently, perinatal depression stands at 15% to 20% in the United States (Sidebottom et al., 2021); hence, early detection of depressive symptoms among outpatient expectant mothers would prompt early intervention that improves patient outcomes in this population including the health and safety of the child. The purpose of this quality improvement project was to increase knowledge and awareness among healthcare providers of evidence-based practices in depression management for expectant mothers in an outpatient clinic in Miami, Florida.

Advanced Literature Review

The purpose of the quality improvement (QI) project was to increase knowledge and awareness among healthcare providers of evidence-based practices (EBP) in depression management for expectant mothers in an outpatient clinic in Miami, Florida. A literature review

was conducted to identify the gaps in the literature on perinatal depression in the United States, barriers to screening for this condition, and the state of knowledge of perinatal mental health among healthcare providers. The search for the sources used for the literature review was conducted in the Florida International University Library database. In order to locate relevant sources, keywords used to search articles included: “perinatal depression,” “expectant mothers,” “perinatal depression epidemiology,” “perinatal depression awareness,” and “perinatal depression management.” The search for the literature was limited to peer-reviewed articles published after 2018 through the present day, and only full-text articles published in English on the topics of perinatal depression epidemiology, management, and awareness on the part of healthcare professionals were selected. Eleven articles addressed and informed the research problem and corresponding PICO question to achieve the purpose of the present QI project. The review of the literature was divided into three distinct content areas, including (a) perinatal depression epidemiology, (b) lack of screening for perinatal depression, and (c) lack of knowledge of perinatal mental health among healthcare providers.

Epidemiology of Perinatal Depression in the U.S.

To adequately address the problem of perinatal depression, healthcare providers need to be aware of the scope and prevalence of this problem. Therefore, it is necessary to determine how prevalent the problem of perinatal depression is. The following section reviews the latest research evidence and statistical data about the prevalence of perinatal depression.

The purpose of a systematic review by Waqas et al. (2022) was to determine whether screening programs for perinatal anxiety and depression helped to improve maternal health and infant health outcomes. One of the findings reported by Waqas et al. (2022) based on the analysis of the studies that used screening programs to determine depression rates among pregnant women and new mothers with depression or anxiety symptoms is that among the patients assessed with

valid and reliable psychometric scales, the rate of depression was 17.5%. In addition, the authors established that implementation of evidence-based intervention among positively screened perinatal women was associated with reduction in perinatal depression and improved quality of life. Moreover, women with depression who received evidence-based treatment reported improved mother-child interaction (Waqas et al., 2022). Based on their findings, Waqas et al (2022) concluded that identifying women in need of treatment of perinatal depression can bring considerable health benefits including more holistic health care, opportunities for reducing cost of care and stigma associated with mental health problems, and greater accessibility of mental health services for the target population.

Mitchell et al. (2023) conducted a systematic review and meta-analysis to study the prevalence of maternal depression during pregnancy and up to 1 year after birth. The authors selected 589 research studies with a total sample size of 616,708 women from 51 countries. Mitchell et al. (2023) analyzed studies that investigated the prevalence of depression using a validated screening instrument during pregnancy or up to 12 months postpartum. In order to extract and synthesize data, two reviewers independently evaluated study eligibility and evidence quality, extracted data, and used a random-effects meta-analysis model to calculate depression prevalence. The main finding reported by the study is that 24.7% or one in four screened women had depression. In addition, HIV diagnosis and exposure to violence committed by intimate partner were associated with a greater risk of perinatal depression. Mitchell et al. (2023) argued that perinatal depression is common and recommended modifying perinatal depression screening policy and allocating additional resources to improve outcomes for women, infants, and their families.

Alabri et al. (2023) conducted a systematic review to gain an in-depth understanding of the correlates and prevalence of perinatal depression and examine the discrepancies and

commonalities in the epidemiological data pertaining to perinatal depression. The authors selected and analyzed 128 systematic reviews that met predetermined methodological and evidence quality criteria. The selected systematic reviews analyzed 4242 research studies, of which 54 reported the prevalence of perinatal depression (Alabri et al., 2023). The authors reported the following findings. First, the overall mean prevalence of perinatal depression was over 26% (Alabri et al., 2023). Second, mean perinatal depression rates were 27% and 17% based on self-reports and measures used by the research team, respectively. Third, some groups of women, such as pregnant inmates in penitentiary institutions, women who had suffered from natural disasters, military personnel, women who abused substances during pregnancy, women whose infants had low birth weight or were born prematurely, HIV-infected women, and immigrants, had substantially higher rates of perinatal depression (Alabri et al., 2023). Fourth, such variables as worries about parenting, transitioning to maternal role, anxiety, stress, social isolation, history of psychiatric illness, dissatisfaction with marriage, conflicts in the family, lifetime history of abuse, and an absence of satisfactory healthcare services were correlated with higher perinatal depression prevalence (Alabri et al., 2023). Based on their findings, the authors concluded that perinatal depression is a highly prevalent condition that requires adequate access to mental health care and understanding on the part of healthcare providers of different cultural expressions of perinatal depression.

The reviewed systematic reviews and meta-analysis demonstrate that perinatal depression is a widespread problem affecting 17% to 26.3% of perinatal women based on screening results obtained with the use of validated screening instruments (Alabri et al., 2023; Mitchell et al., 2023; Waqas et al., 2022). Although reviewed studies do not specify the prevalence of perinatal depression in the U.S., it is reasonable to assume that the prevalence of this condition among perinatal women in America is similar to the average perinatal depression rate reported in the

reviewed studies. Since perinatal depression is a common mental health problem, it is necessary to modify existing policy to make perinatal depression screening more prevalent in clinical practice, allocate additional resources for screening, and ensure that healthcare providers possess adequate knowledge and skills to recognize perinatal women at risk of depression and depression symptoms and implement appropriate interventions. In this regard, the current QI project can raise awareness among healthcare professionals of perinatal depression prevalence and risks.

Lack of Knowledge Among Healthcare Providers of Perinatal Mental Health

The information about knowledge of perinatal mental health among healthcare providers in the U.S. is scarce. This researcher did not find recent studies, published within the last 5 years, that addressed U.S. healthcare providers' knowledge regarding perinatal depression. Therefore, this content area relies on research evidence demonstrating general state of knowledge of perinatal mental health among healthcare professionals globally.

The purpose of the study by Hicks et al. (2022) was to gain better understanding of the current state of perinatal mental health in Canada, including perinatal mental health needs, barriers to care, provision of screening and management, and healthcare provider training. The authors used a cross-sectional study to examine perinatal health providers' knowledge of and training in perinatal mental health, screening and treatment practices, services provided to perinatal women experiencing mental health issues, and treatment barriers (Hicks et al., 2022). The sample size included 435 physicians, nurses, social workers, psychologists, midwives, and allied non-mental health professionals. Hicks et al. (2022) used *t*-test and descriptive statistics to analyze collected data. The authors reported several findings. First, 87% of the respondents had no mandatory screening requirements for perinatal mental illness. Second, although 66% of study participants used validated screening instruments, 42% of providers reported that an average wait time to receive perinatal mental health services was over 2 months. Third, over 57% of the

respondents did not receive or were unsure whether they received training in perinatal mental health (Hicks et al., 2022). Finally, 87% believed that there were financial, linguistic, and cultural barriers to accessing services. Hicks et al. (2022) claimed that considerable gaps in training, screening, and timely and culturally sensitive management of perinatal mental health issues call for enhancing mental health services for pregnant women.

Branquinho et al. (2022) conducted a systematic review of the literature to explore the extent of perinatal depression literacy among frontline health professionals providing treatment and care to perinatal women. The authors included in the review 43 quantitative and qualitative primary research studies of strong or moderate quality. Branquinho et al. (2022) found that health professionals working with perinatal women had average knowledge of perinatal depression and specifically lacked knowledge about the screening tools, risk factors, symptomatology, prevalence, and treatment of perinatal depression. Limited knowledge of perinatal depression screening, symptoms, and treatment could create barriers to the provision of proper care to perinatal women. Based on their findings, Branquinho et al. (2022) recommended providing updated training to healthcare professionals to increase their perinatal depression literacy, helping them to develop more positive attitudes towards this condition, and enhancing their confidence and skills in perinatal depression management.

Poo et al. (2023) conducted a quantitative study to assess the knowledge, perceptions, attitudes, and practices among doctors working in an obstetrics and gynecology setting about perinatal mental health. The authors used a convenience sampling to recruit 55 doctors affiliated with the obstetrics and gynecology department. Poo et al. (2023) used descriptive data in the form of percentages and frequencies and used McNemar's chi-square test to compare doctors' discussions of mental health and patients' self-reported mental health. The authors found that more than 60% of the research participants were not aware of the negative effects of poor

perinatal mental health. In addition, more than 83% of doctors were not confident in providing education about perinatal mental health, whereas more than 65% of the respondents did not routinely screen patients for disorders related to perinatal mental health. Furthermore, only 11% of the doctors discussed with patients perinatal mental health in the antenatal period (Poo et al., 2023). Finally, all the respondents agreed on the benefits of routine mental health screening for perinatal patients.

The qualitative study by Bains et al. (2023) sought to explore the views of healthcare professionals on the facilitators and barriers to accepting and accessing perinatal mental health services by women. The authors used purposive sampling to recruit 24 healthcare professionals who worked with women during pregnancy for semi-structured interviews. Bains et al. (2023) used Ritchie and Spenser's five-step matrix-based framework method to analyze collected qualitative data. Based on the interview content analysis, the authors identified three themes. First, participating healthcare providers had insufficient awareness of perinatal mental illnesses and service structure available to manage those illnesses (Bains et al., 2023). Second, the relationships between patients and their friends, family members, and healthcare professionals can both facilitate and hinder access to services (Bains et al., 2023). Third, healthcare professionals agreed that improving understanding and awareness of perinatal mental health can make perinatal mental health services more acceptable and accessible.

The findings reported in this content area demonstrated that an overwhelming majority of healthcare professionals involved in caring for perinatal women lack the knowledge necessary to screen for and manage perinatal mental health conditions. In addition, healthcare professionals need training and skills to effectively screen for and manage perinatal depression. One of the obstacles to raising awareness of perinatal depression and its effective management is the absence of the guidelines addressing the issue of screening for this condition. This QI project sought to

improve knowledge of perinatal depression among healthcare providers working at an outpatient clinic in Miami, Florida.

Lack of Screening for Perinatal Depression by Healthcare Providers in the U.S.

In the U.S., one of the issues creating barriers to more efficacious management of perinatal depression is insufficient screening for this condition by healthcare providers. Inadequate screening creates a situation when perinatal depression is underdiagnosed and consequently undertreated. The following research studies highlight the gaps in perinatal mental health screening and associated implications for the health of pregnant women.

Sidebottom et al. (2021) conducted a retrospective cohort study to examine the prevalence of prenatal and postpartum depression screening and determine screening barriers and facilitators within a large health system in the U.S. The authors used electronic health records to derive screening data about 7548 women who received prenatal care and 7059 women who visited the clinic within 3 months postpartum. To perform data analysis and examine the relationships between maternal and clinical characteristics and screening practices, Sidebottom et al. (2021) used frequencies, chi-square statistics, and generalized linear mixed models. The authors identified the following patterns in the collected data. For example, perinatal and postpartum screening rates were 65% and 64%, respectively. The difference of up to 30% in depression screening rates depended substantially on a clinical site. In addition, there were no racial or ethnic disparities in the rates of prenatal depression screening (Sidebottom et al., 2021). The authors recommended improving perinatal depression screening practice by implementing universal depression screening of pregnant women.

Sidebottom et al. (2023) conducted a retrospective cohort study to examine the prevalence of perinatal and postpartum depression symptoms and diagnosis and explore variability in screening diagnosis and results depending on economic status, language, ethnicity, and race. The

authors used data from electronic health records of 6523 prenatal patients screened for depression. Sidebottom et al. (2023) used chi-square and frequencies to calculate variations in depression prevalence by maternal characteristics and logistic regression models to study the relationship between race and depression diagnosis. The authors established that (a) 11% of women had positive screening results and (b) prevalence of diagnosed depression was similar in pregnancy and after giving birth (Sidebottom et al., 2023). Furthermore, depression was reported among women with the following characteristics: 50% of women with a history of depression in the past, 23% of Native Americans, 24% of multiracial, 17% of publicly insured, 20% of single women, and 19% of women of 24 years of age and younger. Therefore, some population groups are at a significantly greater risk of perinatal depression. In addition, compared to perinatal White women with a positive depression screen, perinatal African-American women with a positive depression screen were nearly 50% less likely to receive a depression diagnosis (Sidebottom et al., 2023). Based on their findings, the authors asserted that since the accuracy of screening for depression in perinatal women may be compromised by maternal characteristics, the lack of screening may place some groups of women at a substantially higher risk of perinatal depression.

The purpose of the qualitative cross-sectional study by Valdes et al. (2023) was to examine the views of healthcare professionals in acute care and behavioral health settings on how they conduct screening and refer perinatal and postpartum women for perinatal and postpartum depression, what training regarding peripartum depression their organizations offer, and whether study participants could benefit from additional training in peripartum depression screening and management. A convenience sample of 794 health professionals participated in the survey. Valdes et al. (2023) established that although more than 96% of respondents had a specific protocol to screen pregnant women for peripartum depression, only 69% of them used routine screening regardless of whether patients reported depression symptoms. While 93% believed that

their organizations did a good job screening for and identifying peripartum depression, there were gaps in the referral process, especially in acute care settings. Finally, more than 95% of study participants reported that their organizations provide peripartum depression screening and management training or work on improving the outpatient referral system for peripartum depression care for health professionals who have direct contact with pregnant women. At the same time, more than 96% of the respondents believed that they would benefit from additional training in peripartum depression screening and treatment (Valdes et al., 2023). Therefore, data demonstrating that only 69% of respondents used routine screening in cases with asymptomatic pregnant woman show that there is a substantial lack of screening of perinatal women by their healthcare providers.

The findings reported by the studies included in the current review allow making several conclusions. First, considerable clinical site-specific variabilities in perinatal depression screening (Sidebottom et al., 2021) demonstrate that some organizations do not view depression screening of pregnant women as a clinical priority. Second, even when perinatal depression screening is used routinely, its accuracy may be compromised by maternal characteristics. Third, lack of screening places some groups of women of certain economic status, language, ethnicity, and race at a significantly higher risk of perinatal depression (Sidebottom et al., 2023). Lastly, the fact that one-third of healthcare providers do not use perinatal depression screening routinely in asymptomatic pregnant woman (Valdes et al., 2023) exacerbates existing lacks and gaps screening. In other words, using perinatal depression screening selectively rather than universally creates an environment where perinatal depression may go unnoticed and underdiagnosed, compromising maternal and infant health outcomes.

In Miami, one of the largest cities in Florida with a growing diverse population, increasing knowledge among healthcare providers of the EBP in depression management for

expectant mothers and improving mental health of pregnant women would be highly beneficial to public health. Based on the literature review, this QI project sought to increase healthcare providers' knowledge of the gaps in perinatal screening practices to enhance perinatal depression screening effectiveness and ensure that higher rates of expectant mothers have access to perinatal depression screening and treatment. If this QI project was not pursued, perinatal depression would remain underdiagnosed and undertreated, exacerbating already existing unmet health needs and compromising maternal health. The purpose of this project was to increase knowledge and awareness among healthcare providers of the evidence-based practices (EBP) in depression management for expectant mothers in an outpatient clinic in Miami, Florida.

Significance

This quality improvement project is significant to nursing practice, nursing research, and health policy.

Significance to Nursing Practice

Advanced practice registered nurses (APRNs) become increasingly involved in a broader of healthcare services and play an integral role in patient assessment, diagnosis, and management. Considering that nurses are among the frontline healthcare providers spending a considerable portion of their time with and around diverse patients (Michel et al., 2021), nursing professionals are in a good position to manage the care of women who suffer from perinatal depression. The prevention of depression in expectant mothers and the promotion of wellness in this vulnerable group may reduce rates of undiagnosed and untreated perinatal depression in women in a clinic in Miami, Florida.

Significance to Nursing Research

The literature review indicated health disparities and a scarcity of research in this field of study, as well as clinical and knowledge gaps among healthcare providers in the care of women

with perinatal depression (Bains et al., 2023; Poo et al., 2023; Sidebottom et al., 2021, 2023; Valdes et al., 2023). In this regard, a QI project examining the efficacy of an educational intervention used to enhance knowledge of evidence-based practices of perinatal depression among healthcare providers can make a valuable contribution to the literature exploring the approaches to addressing the problem of persistently high rates of perinatal depression.

Significance to Health Policy

According to practice guidelines released by the American College of Obstetricians and Gynecologists (ACOG, 2023), women receiving prenatal and postpartum care should be screened for anxiety and depression using validated standardized screening tools. In addition, screening for perinatal depression should take place at the initial prenatal visit, later in the course of pregnancy, and at postpartum visits (ACOG, 2023). Therefore, in essence, this QI project was about promoting, adhering to, and implementing existing screening guidelines or guideline-based organizational policy. This QI project implemented evidence-based practices for clinicians in the care of expectant mothers with perinatal depression in a clinic in Miami, Florida.

Purpose

The purpose of this quality improvement project was to increase knowledge and awareness among healthcare providers of evidence-based practices in depression management for expectant mothers in an outpatient clinic in Miami, Florida.

Population, Intervention, Comparison, and Outcome (PICO) Clinical Question

Is there a significant difference between pretest and posttest scores among healthcare providers in an outpatient clinic in Miami, Florida after an educational intervention?

Definitions of Terms

The variables of this project were knowledge awareness, age, gender, ethnicity, role, level of education, and perceived knowledge of topic; they are described in the following paragraphs.

Knowledge Awareness

Knowledge awareness of participants was measured and quantified using a pretest and posttest. The pretest and posttest for this project was created using the modified Perinatal Depression Screening, Diagnosis, and Treatment Guideline tool (Kaiser Permanente, 2024). According to Falek et al. (2022), this tool is crucial in assessing a practitioner's knowledge of EBP for the management of maternal mental healthcare. The pretest and posttest consisted of eight true and false questions. The highest possible score a participant could get on the test was eight, with the lowest possible score being zero.

Age

In this project, the participants' age ratio variable was classified into four groups: (a) 18-35 years, (b) 36-45 years, (c) 46-60 years, and (d) 61 years and older.

Ethnicity

The ethnic background nominal variable of the participants was classified as (a) Hispanic, (b) White American, (c) African American and (d) other ethnicity.

Gender

The gender (nominal variable) of participants was grouped as either male or female.

Perceived Knowledge of Topic

The participants' perceived knowledge of the topic was grouped as either (a) minimal, (b) moderate, or (c) competent.

Role

The participants were categorized based on their role in practice such as (a) registered nurse, (b) nurse practitioner, and (c) physician.

Conceptual Underpinning and Theoretical Framework

The theoretical model selected to guide the DNP project was Kurt Lewin's change management theory developed in 1947. According to Kurt Lewin, change management goes through three crucial steps: unfreezing, changing, and refreezing. Originally, the theory was adopted in management departments, with most management scholars perceiving it as the foundation for understanding change and the role change agents must play to enhance the change they aspire to in the organizational and social systems (Lewin, 1947). This theory was chosen to direct the QI project for several reasons. First, Lewin's theory is one of the two most commonly applied (after Kotter's model) change theories in healthcare and nursing (Harrison et al., 2021).

Second, one of the key advantages of this model is that it helps QI project leaders focus on and actively contemplate the change process and its progression. Third, when implemented to guide nursing interventions, Lewin's theory was found to improve nurse-patient communication and considerably increase patient satisfaction with nursing communication (Harrison et al., 2021). This aspect of Lewin's theory is especially relevant in the context of the QI project, where healthcare providers will rely on their communication and clinical skills to identify symptoms and signs of depression in expectant mothers. Therefore, Lewin's change theory was selected to frame and guide this QI project since it enhances reflective insight into this QI project progression and improves provider-patient communication, which is essential for detecting manifestations of depression.

According to Lewin's change theory, change agents have to recognize both change facilitators (driving forces) and change barriers (restraining forces) as well as break the balance

between driving and restraining forces to ensure that driving forces prevail and evoke meaningful action and change (Ahmed et al., 2023). Lewin's approach to change is based on unfreezing, changing, and refreezing QI target processes, behaviors, or practices. In particular, during this unfreezing stage, the project leader identifies driving and restraining forces, determines how to overcome the barriers, and evokes in those involved the desire to change by sharing a clear rationale as to why the need is necessary (Ahmed et al., 2023). During the changing/moving stage, QI project participants acquire new knowledge, learn and practice new behaviors and skills, and integrate change into daily practice, activities, and behaviors. Finally, in the refreezing stage, the project manager uses incentives, appreciation, motivation, and other mechanisms to ensure that project participants fully adopt and transition to new ways of doing things and do not regress to former suboptimal practices (Saleem et al., 2019). Therefore, Lewin's change theory provides a tested, reflective, and actionable framework to effectively guide the proposed QI project.

Methodology

The purpose of the undertaken QI project was to increase knowledge among healthcare providers of the EBP in depression management for expectant mothers in an outpatient clinic in Miami, Florida. A conducted literature review established that the prevalence of perinatal depression may reach up to 26% globally (Alabri et al., 2023; Mitchell et al., 2023; Waqas et al., 2022). Moreover, existing literature confirms a considerable lack of knowledge among healthcare providers of perinatal mental health (Branquinho et al., 2022) and practice gaps in screening for perinatal depression in the U.S. (Sidebottom et al., 2023). Therefore, literature review findings show that perinatal depression remains underdiagnosed and undermanaged and corroborate the relevance of the problem addressed by this QI project. This section describes the study design,

setting, sample, inclusion criteria, exclusion criteria, intervention, measures and instruments, data collection procedures, data analysis, and protection of human subjects.

Study Design

This QI project employed a descriptive pretest and posttest study design. This study design allowed this DNP student to collect data from the participants using demographic, pretest, and posttest surveys. In particular, the pretest and posttest surveys consisted of eight true and false questions and allowed the DNP student to observe changes in knowledge levels among the participants before and after an educational intervention regarding perinatal depression in women. This information shed light on the knowledge level of the healthcare providers, which also informed subsequent training on the best practices in perinatal depression management. The pretest/posttest design was used to measure the changes in the study subjects' knowledge of EBP depression management in expectant mothers.

Setting

This quality improvement project was conducted in an outpatient clinic in Miami, Florida.

Sample

In this study, a convenience sampling approach was used to recruit participants and collect data. The sample consisted of five participants who are currently employed at an outpatient mental health clinic in Miami, Florida. As defined by Polit and Beck (2017), convenience sampling is a non-probability method in which the sample is obtained from an easily reachable group.

Inclusion Criteria

The following inclusion criteria were established:

- Participants must have an active clinical role in the assessment and management of perinatal women in an outpatient clinic in Miami, Florida.
- Participants must hold a bachelor's degree, master's degree, or doctoral degree in their role.
- Participants must be 18 years of age or older.

Exclusion Criteria

- Employment outside of an outpatient clinic where the study took place
- Participants who have no direct contact or active role in the assessment and management of the target population
- Secretaries, psychologists, and therapists
- Healthcare providers under 18 years of age

Intervention

The knowledge of the participants regarding the topic of interest was measured using pretest and posttest surveys. The pretest and posttest surveys for this QI project were developed using the modified Perinatal Depression Screening, Diagnosis, and Treatment Guideline tool (Kaiser Permanente, 2024). This tool is essential in assessing a clinician's knowledge of EBP for the management of maternal mental health care (Falek et al., 2022). The pretest and posttest consisted of eight true and false questions. The highest possible score a clinician can get on the test was eight, with the lowest possible score being zero. The educational intervention used to boost the knowledge of the study participants of EBP for the management of perinatal depression in women involved a voiceover PowerPoint presentation developed by the DNP student.

Research demonstrates that implementing educational interventions among nursing professionals

improves their knowledge and skills in healthcare provision, increasing nurses' future use of EBP and enhancing their self-efficacy (Dos Santos et al., 2022; Patelarou et al., 2020).

Measures and Instruments

The demographic data were collected using a researcher-developed tool via Qualtrics that will assess variables such as the age of the participants that will be categorized into: (a) 18-35 years, (b) 36-45 years, (c) 46-60 years, and (d) 61 years and older. Based on gender, the variable had two categories; (a) female and (b) male. Next, ethnicity was classified as (a) Hispanic, (b) White American, (c) African American, or (d) other. The participants' level of education was collected as follow (a) bachelor's degree, (b) master's degree, or (c) doctoral degree. The healthcare provider's role was categorized as: (a) registered nurse (b) nurse practitioner, and (c) physician. The participant's perceived knowledge of the topic was collected as follows: (a) minimal, (b) moderate, or (c) competent.

Furthermore, this DNP student measured the knowledge awareness of the participants regarding the topic of interest using a pretest and posttest. The pretest and posttest for this project was created using the modified Perinatal Depression Screening, Diagnosis, and Treatment Guideline tool (Kaiser Permanente, 2024). According to Falek et al. (2022), this tool is crucial in assessing the practitioners' knowledge of EBP for the management of maternal mental health care. The pretest and posttest are the same test and have a total of eight true and false questions. For each correct answer, one point was awarded, while a wrong answer received a zero. Hence, the highest obtainable score was eight, while the lowest possible score was zero.

The respondents answered the following questions:

1. Untreated maternal depression has been associated with miscarriage, increased preterm birth, low birth weight, increased rates of cigarette, alcohol, and other substance misuse, and poor prenatal care.

2. Routine screening using the Maternal Mental Health (MMH) Screening questionnaire is recommended for all pregnant women.
3. SSRIs have the least data for use during pregnancy and lactation.
4. Paroxetine is associated with an increased risk of congenital malformations when taken in the first trimester and is therefore contraindicated during pregnancy.
5. Sertraline is a preferred SSRI during pregnancy and lactation because of its short half-life and the relatively low drug levels found in cord blood and breast milk.
6. If a woman has taken an antidepressant during pregnancy, it generally makes sense to continue with the same antidepressant during breastfeeding to minimize the number of medications the infant is exposed to.
7. Pregnant and postpartum women who have a current diagnosis of depression—whether made before pregnancy or during the perinatal period—should be followed with the Maternal Mental Health screening questionnaire at the same set of routine visits.
8. For patients with severe major depression, combined antidepressant medication and psychotherapy is the preferred treatment recommendation.

Data Collection Procedures

Following the IRB approval from FIU, authorization was sought from the management team of the outpatient mental health clinic in Miami, Florida, to conduct the quality improvement project and collect data. Upon participant acceptance of an email invitation, demographic data were collected online using a researcher-developed instrument via Qualtrics. The following data were collected from participants: age – (a) 18-35 years, (b) 36-45 years, (c) 46-60 years, and (d) 61 years and older; gender – (a) female or (b) male; ethnicity –(a) Hispanic, (b) White American, (d) African American, or (d) other. Furthermore, the participants' level of education was

collected as follows: (a) bachelor's degree, (b) master's degree, or (c) doctoral degree. The healthcare provider's role was collected as: (a) registered nurse, (b) nurse practitioner, and (c) physician. Additionally, the participants' perceived knowledge of the topic was collected as follows: (a) minimal, (b) moderate, or (c) competent.

Upon completing the online demographic survey, the participants then completed the online pretest, consisting of the modified Perinatal Depression Screening, Diagnosis, and Treatment Guideline tool (Kaiser Permanente, 2024), to assess their knowledge awareness of the topic of interest. Afterward, the participants engaged in an educational 7-minute PowerPoint presentation on EBP for the management of perinatal depression. Immediately following the educational session, the participants took the online posttest, consisting of the modified Perinatal Depression Screening, Diagnosis, and Treatment Guideline tool (Kaiser Permanente, 2024), to reassess their knowledge awareness of the topic of interest. The demographic survey, pretest, educational session, and posttest took 40 minutes to complete. This DNP student collected data for 4 weeks until the estimated sample size was reached.

Data Analysis

Data collection was done using Qualtrics to protect the privacy of the participants. The anonymized data were processed, coded, cleansed, and analyzed using the Statistical Package for Social Sciences (SPSS) program. Descriptive statistics were done to calculate the mean (M), median (Mdn), mode, and standard deviation (SD) of the demographic data and the responses. Statistically significant differences between variables were evaluated using the t -test, allowing for the evaluation of differences between values before and after educational intervention. A p -value < 0.05 was considered statistically significant (Polit & Beck, 2017).

Protection of Human Subjects

To guarantee research ethics and human subject protection, Institutional Review Board (IRB) approval was obtained from Florida International University before the project's initiation to enhance ethical practices in research and the protection of human subjects. Moreover, permission was obtained from the management team in the outpatient clinic in Miami, Florida. The researcher was acquainted with the requirements of Collaborative Institutional Training Initiative (CITI) ethics certification on the protection of human subjects in social and behavioral research. Data collected for this quality improvement project were anonymized using Qualtrics. Also essential to note was that participation in this project was voluntary, and participants could withdraw from the project at any stage with no penalty. Furthermore, potential participants were provided with the purpose of the project, objectives, procedures, as well as risks and benefits before they volunteer for the project.

Results

The purpose of this quality improvement project was to increase knowledge and awareness among healthcare providers of evidence-based practices in depression management for expectant mothers in an outpatient clinic in Miami, Florida. A quantitative, descriptive pretest, and posttest study design was used to conduct this quality improvement project. Qualtrics was used to collect demographic data and administer pretest and posttest surveys. Data were analyzed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics such as mean, median, mode, and standard deviation were calculated for demographic data. The *t*-test was employed to evaluate the significance of knowledge changes before and after the intervention, with a *p*-value < 0.05 considered statistically significant. The sections below will discuss demographic data and results related to the PICO clinical question.

A total of $N = 4$ healthcare providers participated in this QI project. Demographic questionnaires and pretests without paired posttests were excluded from data analysis. A total of

$N = 4$ participants completed the pre-test and post-test. Thus, the total sample size consisted of $N = 4$ participants.

QI project participants did not vary in age, see Table 1. All participants were between 18 and 35 years. No participants identified to be aged above 35 years.

Table 1

Age Distribution Among Healthcare Providers at an Outpatient Psychiatric Clinic (N=4)

Age	Frequency	Percentage
18 to 35 years	4	100%
36 to 45 years	0	0%
46 to 60 years	0	0%
61 years and older	0	0%

Participants identified as either female or male, see Table 2. Over half of the participants identified as female, while 25% of participants identified as male. The male gender was underrepresented.

Table 2

Gender Distribution Among Healthcare Providers at an Outpatient Psychiatric Clinic (N=4)

Gender	Frequency	Percentage
Female	3	75%
Male	1	25%
Total	4	100%

The QI project participants did not vary in ethnicity, see Table 3. Most participants identified as Hispanic (75%), while 25% identified as African American. None of the participants self-identified as White American.

Table 3

Ethnicity Distribution Among Healthcare Providers at an Outpatient Psychiatric Clinic (N=4)

Ethnicity	Frequency	Percentage
Hispanic	3	75%
White American	0	25%
African American	1	0%

Participants' roles within the outpatient psychiatric clinic was uniform, see Table 4. All participants were nurse practitioners. No participants held the role of registered nurse or physician at this facility.

Table 4

Healthcare Provider Role at an Outpatient Psychiatric Clinic (N=4)

Provider Role	Frequency	Percentage
Registered Nurse	0	0%
Nurse Practitioner	4	100%
Physician	0	0%
Total	4	100%

Participants were asked to rate their perceived knowledge on evidence-based practices in depression management for expectant mothers as minimal, moderate, or competent; see Table 5. Half of participants categorized their existing knowledge of the subject matter as moderate. A

quarter of participants considered themselves to be competent in the topic. Similarly, a quarter of participants rated their existing knowledge as minimal.

Table 5

Perceived Knowledge of Topic Among Healthcare Providers at an Outpatient Psychiatric (N=4)

Perceived Knowledge of Topic	Frequency	Percentage
Minimal	1	25.0%
Moderate	2	50.0%
Competent	1	25.0%
Total	4	100%

PICO Clinical Question

The PICO question was: Is there a significant difference between pretest and posttest scores among healthcare providers in an outpatient clinic in Miami, Florida after an educational intervention? The educational intervention did not meet the anticipated goal. First, the pretest scores for all items were below 2, with item three scoring the highest at 1.75 in the true/false measurement scale ranging from 0 to 5 – higher scores indicate greater knowledge as shown in Table 6. The consistently lower scores reflect knowledge gaps on key topics, such as optimal treatments for pregnant women with severe depression. For example, identifying "Sertraline as a preferred SSRI during pregnancy" in a true/false format did not ensure the healthcare provider understood why it is preferred or the pharmacological rationale, which is critical to safe, informed prescribing practices.

Table 6*Pretest Results Among Healthcare Providers at an Outpatient Psychiatric Clinic (N=4)*

Item	<i>M</i>	<i>Median</i>	<i>SD</i>
1	1	1	0
2	1.25	1	0.5
3	1.75	2	0.5
4	1.25	1	0.5
5	1	1	0
6	1.25	1	0.5
7	1	1	0
8	1	1	0

Post-intervention scores showed improvement. Item 3 remained the highest score at 1.5, but still below the target score (see Table 7). Interestingly, items related to appropriate medication choices and risk were consistently low, which suggests that the intervention did not effectively enhance knowledge in critical areas. The paired t-test did not indicate any statistical significance between pretest and post-test mean scores. Similarly, the posttest mean score was at 1.156 with a standard deviation of 0.19, yielding a p-value of 0.68 ($p > 0.05$) (see Table 8). Consequently, the difference between the pretest and posttest mean scores were not significantly large. These results were likely due to the small sample size, and readers should be cautious when interpreting the findings of this project.

Table 7

Posttest Results Among Healthcare Providers at an Outpatient Psychiatric Clinic (N=4)

Item	<i>M</i>	<i>Median</i>	<i>SD</i>
1	1.25	1	0.5
2	1.25	1	0.5
3	1.5	1.5	0.57735
4	1	1	0
5	1	1	0
6	1	1	0
7	1.25	1	0.5
8	1	1	0

Table 8

Two-Tailed Paired Sample t-Test Between Pre and Posttest Mean Scores

	<i>M</i>	<i>SD</i>	95% Confidence Interval of the Difference		<i>T</i>	<i>Df</i>	<i>p-value</i>
Posttest -	1.15625	0.18601	Lower:	Upper:	0.42366	7	0.6845
Pretest	1.1875	0.258775	-0.20567	0.14317			

Moreover due to the lack of significant difference between pretest and posttest values, the null hypothesis was accepted. However, the acceptance of the null hypothesis suggests that the educational intervention did not lead to significant improvements in knowledge of evidence-

based practices among the participants in this project. Possible reasons for the outcome include delivery of the content was not optimally engaging for the targeted group. Secondly, the format of content delivery did not fully capture the subtle changes in knowledge acquisition. Lastly, the sample size was possibly too small to produce an effect; readers should be cautious when interpreting the results of this project. Therefore, it is imperative to consider more engaging approaches because they foster deeper understanding, such as case-based or interactive learning sessions. Future interventions should focus on items with significantly low scores, such as optimal medication during pregnancy could significantly help target current knowledge gaps more effectively. Finally, although the intervention did not achieve significant outcomes, refining the content may yield favorable results.

As illustrated in Table 8, the two-tailed paired samples t-test confirmed that the the difference between the pre-test and post-test mean scores were not large enough to be considered significant. Therefore, the DNP student rejected the alternative hypothesis indicating no significant difference between pretest and posttest scores among the participants in this quality improvement project. However, several factors could have yielded this outcome as described.

Summary and Discussion

The purpose of this quality improvement project was to increase knowledge and awareness among healthcare providers of evidence-based practices in depression management for expectant mothers in an outpatient clinic in Miami, Florida. A quantitative, descriptive pretest, and posttest study design was used to conduct this quality improvement project. The sample size of $N = 4$ consisted of only nurse practitioners associated with expectant mothers in an outpatient clinic. A modified Perinatal Depression Screening, Diagnosis, and Treatment Guideline tool and a researcher developed demographic questionnaire were employed to collect data to assess

knowledge and awareness among healthcare providers of evidence-based practices in depression management for expectant mothers.

A convenience sampling method was used to recruit participants and access data. Data were collected via the platform Qualtrics and were analyzed using the SPSS. The project results established that the pretest and posttest mean scores were not significantly different. There was not a statistical difference between pre- and posttest mean scores, $t(4) = 0.42366$, with a $p = 0.068$, ($p > 0.05$). Subsequent sections summarize results and compare and contrast findings with current literature. Further, the implications for advanced practice nursing, project limitations, and recommendations are discussed.

Results and Discussion Summary

The mean (M) score of the pretest was 1.188, with a standard deviation (SD) of 0.26. In the pretest, no item was scored above 2. The item with the highest score was item 3: *SSRIs have the least data for use during pregnancy and lactation*. Participants scored lowest in four items 1, 5, 7 and 8, which were: *Untreated maternal depression has been associated with miscarriage, increased preterm birth, low birth weight, increased rates of cigarette, alcohol, and other substance misuse, and poor prenatal care; Sertraline is a preferred SSRI during pregnancy and lactation because of its short half-life and the relatively low drug levels found in cord blood and breast milk; Pregnant and postpartum women who have a current diagnosis of depression—whether made before pregnancy or during the perinatal period—should be followed with the Maternal Mental Health screening questionnaire at the same set of routine visits; For patients with severe major depression, combined antidepressant medication and psychotherapy is the preferred treatment recommendation.*

In the posttest, the M score was 1.156 with a SD of 0.19. No item in the posttest was scored above 2. Items 4, 5, 6 and 8 were scored lowest, which were: *Paroxetine is associated with an increased risk of congenital malformations when taken in the first trimester and is therefore contraindicated during pregnancy; Sertraline is a preferred SSRI during pregnancy and lactation because of its short half-life and the relatively low drug levels found in cord blood and breast milk; If a woman has taken an antidepressant during pregnancy, it generally makes sense to continue with the same antidepressant during breastfeeding to minimize the number of medications the infant is exposed to; For patients with severe major depression, combined antidepressant medication and psychotherapy is the preferred treatment recommendation.* Conversely, participants scored highest in item 3: *SSRIs have the least data for use during pregnancy and lactation.* The QI project results indicate that the pre-test and post-test mean scores are not significantly different, $t(4) = 0.42366$, with a $p = 0.068$, ($p > 0.05$). Thus, the educational intervention did not make a statistically significant difference in increasing knowledge and awareness among healthcare providers of evidence-based practices in depression management for expectant mothers.

Despite no difference between pretest and posttest scores after an educational intervention, current literature argues that educational interventions are essential in the knowledge enhancement and clinical outcomes improvement. Al-Ashwal et al. (2024) conducted a study to evaluate effectiveness of an educational intervention on enhancing healthcare providers' knowledge of cardiovascular risk management. The study specifically targeted improving understanding of cholesterol guidelines, risk factors, and appropriate therapeutic strategies among healthcare professionals in clinical settings. The educational intervention was delivered through a combination of lectures, interactive workshops, and case-based learning

modules. Participants included physicians, nurse practitioners, and other allied health professionals working in cardiovascular care. Pre- and post-intervention assessments revealed significant improvements in the participants' knowledge of cholesterol management guidelines, particularly in relation to LDL cholesterol targets and the appropriate use of statins. Participants' awareness of the Framingham CVD risk calculator improved significantly from 40.4% pre-intervention to 78.7% post-intervention. Similarly, understanding of the parameters used in the 10-year atherosclerotic cardiovascular disease (ASCVD) risk calculator rose from 46.8% pre-intervention to 76.6% post-intervention (Al-Ashwal et al., 2024). The participants also demonstrated an increased understanding of risk assessment tools, such as the ASCVD risk calculator.

Ranjbar et al. (2024) assessed the effectiveness of educational interventions designed to reduce cognitive biases in healthcare providers, particularly in improving diagnostic accuracy. The research focused on exploring how training on cognitive biases such as confirmation bias and availability heuristic can impact the quality of clinical decision-making and diagnostic reasoning. Healthcare providers from various clinical backgrounds, including physicians and nurse practitioners, participated in the study. The study results showed a significant improvement in diagnostic accuracy post-intervention, with participants demonstrating a reduced tendency to rely on cognitive shortcuts (Ranjbar et al., 2024). Further, the participants' ability to critically assess clinical evidence improved, resulting in fewer diagnostic errors.

Furthermore, Acharya et al., (2022) evaluated the impact of a targeted educational intervention on improving healthcare providers' knowledge of opioid prescribing guidelines and safe practices. The intervention addressed the growing public health issue of opioid misuse and was designed for physicians, nurse practitioners, and other healthcare providers involved in pain management. Pre- and post-intervention assessments showed that participants demonstrated

significant improvements in their knowledge of safe opioid prescribing practices. Acharya et al. (2022) observed improvement in correct prescribing habits for acute migraine management among emergency medicine residents, from 14.8% to 38.5%. Besides, among general surgery residents, there was a significant improvement in adherence to narcotic amounts. These studies support the significant role of quality improvement projects in reducing knowledge gaps among clinicians and improving patient outcomes in the United States.

Implications for Advanced Practice Nursing

This quality improvement project has important implications for advanced practice nurses. It enabled healthcare providers to enhance their knowledge of evidence-based practices (EBP) in managing depression among expectant mothers. The findings support the development of policies that require routine screening for perinatal depression in outpatient settings. The policies should ensure that expectant mothers can access timely and effective mental health care as it could significantly improve health outcomes and quality of life for this vulnerable population. Furthermore, given the identified gaps in training on perinatal mental health, healthcare organizations should consider integrating mental health training into existing continuing education programs to bridge the gap between physical and mental healthcare. This step would ensure providers are adequately prepared to address physical and mental health needs of expectant mothers.

Limitations of the Project

The first limitation is the small sample size, which included only four healthcare providers from a single outpatient clinic in Miami, Florida. This limits the generalizability of the findings to other clinics, healthcare settings, or geographic regions. Second, the use of convenience sampling may introduce selection bias, as the participants who volunteered may already have an interest in mental health or depression management, potentially skewing the results. Another

limitation is the reliance on self-reported measures, such as pretest and posttest surveys, which may be subject to response bias. Participants might overestimate their knowledge or report improvements due to the nature of the intervention, even if actual behavioral changes in clinical practice are not as pronounced. Lastly, the test results did not show a significant change in knowledge levels, indicating that the educational intervention may not have been as effective as intended.

Recommendations

Based on the findings and limitations of this project, first, future studies should expand the sample size and include a more diverse group of healthcare providers from various clinics and specialties to ensure the findings are more generalizable. Additionally, using a more robust educational intervention, such as combining in-person workshops with follow-up sessions, could improve the effectiveness of knowledge retention and application in clinical practice. The author also recommends the implementation of long-term follow-up assessments to evaluate the sustained impact of the intervention on healthcare providers' behaviors and patient outcomes. Further, future studies should re-evaluate the content and intervention delivery method to address the lack of significant improvement in test scores.

Conclusions

This QI project aimed increase knowledge and awareness among healthcare providers of evidence-based practices in depression management for expectant mothers in an outpatient clinic in Miami, Florida. Despite limitations such as a small sample size and lack of significant change in pretest and posttest results , $t(4) = 0.42366$, with a $p = 0.068$, ($p > 0.05$), the project highlighted the importance of educational interventions in improving provider knowledge and awareness. The findings suggest a need for more robust and sustained educational efforts, including the integration of mental health training into routine continuing education. Addressing the knowledge

gaps can ensure healthcare providers are better equipped to manage depression in perinatal care, leading to improved patient outcomes. Future research should focus on broader and diverse populations, and long-term assessments to ensure that educational interventions have a lasting impact on both the clinician's practice and patient's health outcome.

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Appendix A

FLORIDA INTERNATIONAL UNIVERSITY
INSTITUTIONAL REVIEW BOARD APPROVAL LETTER



Office of Research Integrity
Research Compliance, MARC 430

MEMORANDUM

To: Dr. Francisco Brenes
CC: Isis de Armas
From: Kourtney Wilson, MS, IRB Coordinator *KMW*
Date: June 26, 2024
Protocol Title: "Increasing Knowledge of Evidence-Based Practices for the Management of Perinatal Depression: An Educational Module among Healthcare Providers."

The Florida International University Office of Research Integrity has reviewed your research study for the use of human subjects and deemed it Exempt via the **Exempt Review** process.

IRB Protocol Exemption #: IRB-24-0323 **IRB Exemption Date:** 06/26/24
TOPAZ Reference #: 114703

As a requirement of IRB Exemption you are required to:

- 1) Submit an IRB Exempt Amendment Form for all proposed additions or changes in the procedures involving human subjects. All additions and changes must be reviewed and approved prior to implementation.
- 2) Promptly submit an IRB Exempt Event Report Form for every serious or unusual or unanticipated adverse event, problems with the rights or welfare of the human subjects, and/or deviations from the approved protocol.
- 3) Submit an IRB Exempt Project Completion Report Form when the study is finished or discontinued.

Special Conditions: N/A

For further information, you may visit the IRB website at <http://research.fiu.edu/irb>.

KMW

*Appendix B***FLORIDA INTERNATIONAL UNIVERSITY
SUPPORT LETTER FROM FACILITY****SOUTH FLORIDA
PSYCHIATRY****NOT RESEARCH**

DATE: May 24th, 2024
FROM: South Florida Psychiatry (SFP) Human Studies Subcommittee
To: Isis de Armas, MSN, APRN, PMHNP-BC

PROJECT TITLE: Increasing Knowledge of the Evidence-Based Practices for the Management of Perinatal Depression: An Educational Module among Healthcare Providers : A Quality Improvement Project.

REFERENCE #: 1601013-5

SUBMISSION TYPE: Other –Quality Improvement
REVIEW TYPE: Administrative Review
ACTION: NOT RESEARCH

The following items were administratively reviewed on 05/24/2024.

After review of the submitted documents, a determination was made that the activity described does not constitute research and no further research regulatory review is required. This review will be reported to the fully convened Human Studies Subcommittee (IRB) on 05/24/2024

SFP Project Cover Sheet - Increasing Knowledge of the Evidence-based Practices for the management of Prenatal Depression: An Educational Module among Health Care Providers: A Quality Improvement Project

(UPDATED: 05/24/2024)

In order to ensure appropriateness of any poster/presentation or publication that may result from this activity, you must submit a copy of the materials to the Research Service IRB Office for approval prior to submission to the society/Journal.

Considering recent events regarding data security, I take this opportunity to impress upon you the requirements of maintaining all information containing sensitive information behind the SFP firewall and on SFP servers. This should be standard practice for all SFP employees, regardless of whether the activity is related to clinical duties, program evaluation or any other related activities.

If you have any questions, please contact Dr. Ernesto L. Sarduy at 786-637-0907, or sarduy@southfloridapsychiatry.org. Please include your project title and reference number in all correspondence with this committee.

This letter has been issued in accordance with all applicable regulations, and a copy is retained within South Florida Psychiatry Group, PA Human Studies Subcommittee's records.

*Appendix C***FLORIDA INTERNATIONAL UNIVERSITY****RECRUITMENT EMAIL**

Dear Healthcare Provider,

My name is Isis de Armas, and I am a student from the Graduate Nursing Department at Florida International University pursuing a Doctor of Nursing Practice (DNP) degree. I would to invite you to participate in my quality improvement project. The purpose of this quality improvement project is to increase knowledge and awareness among healthcare providers of evidence-based practices in depression management for expectant mothers in an outpatient clinic in Miami, Florida. You are eligible to take part in this project because you are a healthcare provider at South Florida Psychiatry and you may have contact with expectant mothers who suffer from depression. I am contacting you with the permission of the founder and CEO of the organization *Dr. Ernesto Sarduy, DNP, APRN, PMHNP- BC*.

If you decide to participate in this project, you will be asked to complete demographic, pretest, and posttest surveys. Also, you will be prompted to participate in a seven minutes educational session, developed by this DNP student, consisting of a voice-over PowerPoint presentation of evidence-based practices for the management of perinatal depression in women. The demographic survey, pretest, educational session, and posttest take 40 minutes to complete.

Please be informed that your participation is completely voluntary and no compensation will be provided. You are free to agree or decline to participate in the project. If you would like to participate, please let me know in person, via the phone, or email within 72 hours. If you have any questions about this quality improvement project, do not hesitate to reach out using contact information provided below.

Thank you so much.

Sincerely,

Isis de Armas, MSN, APRN, PMHNP-BC

Idear007@fiu.edu | 786-XXX-XXX

*Appendix D***MODIFIED PERINATAL DEPRESSION SCREENING, DIAGNOSIS, AND
TREATMENT GUIDELINE**

1. Untreated maternal depression has been associated with miscarriage, increased preterm birth, low birth weight, increased rates of cigarette, alcohol, and other substance misuse, and poor prenatal care.

True

False

2. Routine screening using the Maternal Mental Health (MMH) Screening questionnaire is recommended for all pregnant women.

True

False

3. SSRIs have the most minor data for use during pregnancy and lactation.

True

False

4. Paroxetine is associated with an increased risk of congenital malformations when taken in the first trimester and is therefore contraindicated during pregnancy.

True

False

5. Sertraline is a preferred SSRI during pregnancy and lactation because of its short half-life and the relatively low drug levels found in cord blood and breast milk.

True

False

6. If a woman has taken an antidepressant during pregnancy, it generally makes sense to continue with the same antidepressant during breastfeeding to minimize the number of medications the infant is exposed to.

True

False

7. Pregnant and postpartum women who have a current diagnosis of depression—whether made prior to pregnancy or during the perinatal period—should be followed with the Maternal Mental Health Screening questionnaire at the same set of routine visits.

True

False

8. For patients with severe major depression, combined antidepressant medication and psychotherapy is the preferred treatment recommendation.

True

False

*Appendix E***FLORIDA INTERNATIONAL UNIVERSITY****RESEARCHER-DEVELOPED DEMOGRAPHIC INSTRUMENT**

1. What is your age?
 - a. 18 to 35 years
 - b. 36 to 45 years
 - c. 46 to 60 years
 - d. 61 years and older

2. What is your gender?
 - a. Female
 - b. Male

3. What is your ethnicity?
 - a. Hispanic
 - b. White American
 - c. African American
 - d. Other ethnicity

4. What is the perceived knowledge of topic?
 - a. Minimal
 - b. Moderate
 - c. Competent

5. What is your role in practice?
 - a. Registered Nurse
 - b. Nurse Practitioner
 - c. Physician

Appendix F

FLORIDA INTERNATIONAL UNIVERSITY

CITI ETHICS CERTIFICATION



Completion Date 27-Aug-2021
Expiration Date 26-Aug-2024
Record ID 44528505

This is to certify that:

Isis de Armas

Has completed the following CITI Program course:

Basic/Refresher Course - Human Subjects Research
(Curriculum Group)
Biomedical Human Research Course
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

Florida International University

CITI
Collaborative Institutional Training Initiative
101 NE 3rd Avenue, Suite 320
Fort Lauderdale, FL 33301 US
www.citiprogram.org

Not valid for renewal of certification through CME.

Verify at www.citiprogram.org/verify/?wd496d939-2bec-4922-9957-69deb4fb2c4b-44528505

*Appendix G***FLORIDA INTERNATIONAL UNIVERSITY****CV**

2016	BSN, Miami Dade College Miami, FL
2017–2018	Registered Nurse, Mount Sinai Medical Center, Miami, FL
2018–2023	Registered Nurse, Ryder Trauma Center, Miami, FL
2023	MSN, Florida International University, Miami, FL
2024–Present	Psychiatric-Mental Health Nurse Practitioner, South Florida Psychiatry, Miami, FL
2024	DNP, Florida International University, Miami, FL