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Increasing Knowledge of Postpartum Depression Screening Amongst Healthcare Providers: A Quality Improvement Project

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Increasing Knowledge of Postpartum Depression Screening Amongst Healthcare Providers: A
Quality Improvement Project

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

By

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Approval Acknowledged: _____, DNP Program Director

Date: _____

Abstract

Postpartum depression (PPD) is a mood disorder that affects women after childbirth. Affected women typically experience symptoms such as feelings of severe sadness, anxiety, and exhaustion that make it difficult for them to complete daily activities and to care for their baby. PPD is significantly undertreated, and it may become an important issue that affects the health of a mother, her interaction with the newborn, infant growth, and the mother's marital relationship. Undertreatment of PPD could stem from lack of knowledge regarding the screening process for PPD. While diagnosing PPD is key to treating the ailment, PPD remains highly underdiagnosed in the United States. This situation may be due to health care professionals' lack of understanding of the condition and/or of the screening procedures to detect it. A quality improvement project was developed with the aim to increase knowledge on postpartum depression screening amongst healthcare providers in the hospital setting. The project was conducted at a major urban women's and children's hospital. A total of 10 participants were included in the study which consisted of nurses, nurse practitioners, obstetric residents, and family medicine residents. The quality improvement project demonstrated that the implementation of a targeted population education intervention for the care of postpartum women positively increased the knowledge of healthcare providers using the postpartum depression screening tools. Pre-test scores ranged from 6 to 13 with an average of 9.8 out of 15. At post-intervention, scores ranged from 10 to 14 with an average of 12.4 out of 15. The change in knowledge was found to be statistically different by 11%, post educational intervention. Education for healthcare providers regarding PPD screening is critical and should be readily available to ensure that adequate treatment is provided to this patient population. This project may inspire future efforts to establish innovative ways and strategies to enhance the quality of

postpartum depression screening procedures by healthcare providers, with the goal of benefiting women who are afflicted.

Keywords: postpartum, postpartum depression screening, healthcare providers, educational intervention

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Introduction

Postpartum depression (PPD) is a mood disorder that affects women after childbirth. Affected women typically experience symptoms such as feelings of severe sadness, anxiety, and exhaustion that make it difficult for them to complete daily activities and to care for their baby (Gordon, 2019). Given the potential impact, PPD screening is considered a cornerstone of infant preventative care. Improper or absent screening can lead to infant behavioral and attachment issues, early cessation of breastfeeding, and the overuse of healthcare services (Oringer et al., 2019). Proper PPD screening performed by a trained professional can help prevent negative consequences for the infant.

Problem Statement

At Jackson Memorial Hospital (JMH), the current screening process for PPD is not performed in a proper manner. Due to the large census at this facility, postpartum women who come for their six-week check-up may not be properly screened or screened at all. This situation is a serious concern since the six-week postpartum cycle is a critical time when PPD is more widespread. It may be helpful for this hospital to introduce an educational intervention to help physicians improve their screening process for these patients. In-depth PPD screening can aid physicians in detecting any early signs or symptoms that could lead to PPD, with the intention of preventing it.

Significance

PPD is significantly undertreated, and it may become an important health issue that affects the health of a mother, her interaction with the newborn, infant growth, and the mother's marital relationship (Shorey et al., 2018). Postpartum depression can negatively influence the patient's family dynamic by creating discord within the marriage due to increased tension and attachment issues between the mother and infant. Undertreatment of PPD could stem from lack of knowledge regarding

the screening process for PPD (Mohammad-Redzuan et al., 2020). If a healthcare provider is unsure about conducting a certain assessment or screening, they may feel reluctant to do so. The healthcare provider may need further training to perform an adequate PPD screening. Mothers missing postpartum appointments may also make it difficult for providers to adequately screen for the condition (de Paula Eduardo et al., 2019). Collaboration between mothers and healthcare professionals is important for effective screening, as well as continuous assessment and process modification for screening.

Summary of the Literature

This literature review is based on 14 peer-reviewed sources published between the last five years (2017–present). The Medline database and Cochrane Pregnancy and Childbirth Group trials registry were used in the search process. The search terms “postpartum depression,” “postnatal depression,” “postpartum depression screening,” and “education of healthcare providers to PPD screening” were used as keywords to narrow the search to specific consequences of PPD and the importance of educating healthcare providers about PPD and relevant clinical interventions. English was the language used in all selected and analyzed studies. The inclusion criteria were systematic reviews examining the prevalence and incidence of PPD among mothers after childbirth, meta-analyses analyzing PPD among mothers, the importance of education about PPD diagnosis among healthcare providers, and primary research studies exploring the psychological and physical impact of childbirth on women. The PICO question, “Does a clinical education intervention increase knowledge of postpartum depression screening among healthcare providers in a hospital setting?” was addressed in eight studies.

Importance of PPD Screening

Postpartum depression screening provides healthcare providers with insight into the severity of PPD symptoms. Brealey et al. (2020) conducted a systematic review of the literature to establish whether screening for postnatal depression (PND) is acceptable to healthcare professionals and women. The methodology involved strong systematic review approaches that ensured that disagreements and conflicts were resolved effectively. The review identified studies from databases, such as CINAHL, EMBASE, MEDLINE, CDSR, and PsycInfo. Inclusion and exclusion criteria guaranteed that only studies that assessed the acceptability of approaches within one year of birth were selected for analysis. The sample consisted of 11,945 possible studies, 225 of which were evaluated for eligibility, yet only 16 satisfied the inclusion benchmarks. The findings showed that PPD screening is acceptable to women and healthcare experts. The study underlined the significance of PPD screening for preterm mothers and the need to consider various factors (e.g., cultural attitudes) that might impact effective screening.

Similarly to Brealey et al. (2020), Long et al. (2019) conducted a systematic review to analyze the efficacy of interventions that healthcare experts employ to augment screening and referral for perinatal mood and anxiety disorders. A systematic, qualitative search was conducted in various databases, such as CINAHL, PubMed, and Medline. The review included 25 studies, and the results revealed comparatively positive receptivity to screening guidelines among mothers and healthcare providers. The results also showed that various interventions are available to augment screening and referral for the disorders. The study underlined the importance of employing validated and reliable tools when screening for depression, specifically in the perinatal population. The authors acknowledge that new mothers are prone to numerous psychological issues that can only be diagnosed through appropriate screening procedures. A standardized and effective screening process for PPD can help ensure early diagnosis of this

mental health issue because many of the symptoms such as sleep disturbances, weight gain or loss, and irritability are somewhat easy to detect.

Oringer et al. (2019) acknowledge the role of pediatricians in identifying and helping new mothers with PPD, and they examined how PPD screening could be successful in primary care. The researchers employed an analytical method to evaluate various studies regarding maternal depression and screening. The sample included 1,119 mother-baby dyads, of which 22 mothers screened positive for self-harm and were placed in intervention programs. The results were consistent with that of mental health patients for whom screening is recommended to establish timely and suitable interventions. The study generated insightful findings that can be translated in primary care settings, particularly regarding the importance of PPD screening. Furthermore, an improved screening process for PPD can lead to better and timelier detection of postpartum depression and intervention.

PPD and Child Outcomes

Maternal depression is a risk factor for the cognitive and socioemotional development of children. De Paula et al. (2019) conducted a meta-analysis of studies exploring PPD as a risk factor for preterm birth in the preceding decade. The sample consisted of 26 studies, 12 of which were included in the meta-analysis. The researchers performed a systematic review of indexed studies in the Web of Science, Medline/PubMed, and PsycInfo databases. The findings revealed a relationship between preterm delivery and PPD. The study underlined the importance of PPD screening and the need to consider physical and emotional effects that may cause PPD in women. In assessments conducted up to 24 weeks after gestation, the meta-analysis found evidence of a higher risk of PPD for mothers of preterm infants. The screening must be performed early for better results. Early detection of PPD through an effective screening process can decrease

maternal depression rates. Since preterm delivery seems to affect both babies and mothers, maternal mental health treatment for PPD is relevant in this target group.

Langvik et al. (2020) discuss the dynamics of the Edinburgh Postnatal Depression Scale (EPDS) as part of a plan for antenatal, intrapartum, and postpartum care in Trondheim, Norway. The authors conducted interviews with public health nurses to understand their experiences with using EPDS as a screening tool for PPD in new mothers. The sample comprised of eight public health nurses who satisfied all the inclusion criteria. The study methodology was qualitative in nature, involving semi-structured interviews and a thematic approach. The results reveal that public health nurses have a positive attitude towards the EPDS and affirm that the screening tool helps improve the mental health of new mothers and the overall health of their growing child. Despite the small sample, the authors emphasize the benefits of PPD screening and encourage further studies to establish the effectiveness of the EPDS in different stages of pregnancy. Continuing the use of EPDS for routine screening of PPD may also be beneficial. If PPD is screened for post-delivery as well as during pregnancy, this may increase the chances of diagnosing and treating the mental health issue in a timely manner.

Netsi et al. (2019) used participants in the Avon Longitudinal Study of Parents and Children (ALSPAC) to examine the sequelae of PND on subsequent maternal depression and child outcomes. Unlike Langvik et al. (2020), this study took a more in-depth approach in recognizing the effects of PND in both women and children at least one year postpartum. The researchers aimed to explore the natural course of varied levels of PND severity after childbirth and child outcomes. The sample included 9,848 mothers and 8,287 children. The results revealed elevated depressive signs in women with PND up to a decade after birth and an association between the disorder and child conduct problems at three and half years. Furthermore, PPD was

found to increase the risk for child behavior disturbance. Therefore, maternal PND has considerable implications on children's health, and PND screening may help alleviate maternal depression symptoms through early treatment, improve mothers' mental health, and prevent conduct disorder issues in children. Women with persistent PND, particularly when it is serious, may be at risk for a variety of negative consequences. Women with persistent PND can be identified, and adequate care can be offered if they are properly screened in the first postpartum year.

Shorey et al.'s (2018) meta-analysis examined the incidence and prevalence of PPD among healthy mothers who have had no previous history of depression and who birthed healthy full-term infants. The authors employed a systematic qualitative approach to search for pertinent data in various databases. The meta-analysis included 15, 895 articles, 58 of which were included in the review. The results show a certain degree of PPD in every mother and affirm that healthy mothers and those with a prior history of depression are both at a heightened risk of developing PPD. The authors emphasize that PPD screening should be performed to ensure that targeted interventions are done at an appropriate time. Moreover, screening for PPD should be conducted on all postpartum women since no difference seems to exist in the prevalence of women with a history of depression compared to those without. If the screening process is conducted in a timely manner, better outcomes with targeted interventions and follow-up may be possible.

Slomian et al. (2019) explored the maternal and infant implications of untreated maternal depression. The researchers conducted a systematic review of publications between January 1, 2005 and August 17, 2016 in various databases, such as PsycINFO and MEDLINE via Ovid. The sample consisted of 122 studies—all of which were considered eligible for the evaluation of the consequences of PPD. The results revealed implications for postpartum depression's maternal

effects, such as physical wellbeing, psychological health, relationships, and unhealthy behaviors; postpartum depression's infant consequences, such as physical health, sleep, and motor, cognitive, verbal, mental, social, and behavioral development; and mother–child experiences, such as attachment, breastfeeding, and the maternal position. The study confirmed that untreated maternal PPD can lead to poor health outcomes for mothers and infants. According to the findings, postpartum depression is not conducive to mothers' personal growth or a children's optimal development. To prevent negative effects, it is important to diagnose and treat depression during the postnatal phase as soon as possible. Effective screening can alleviate these negative consequences and may improve the quality of life for mothers and their children.

Zee-van den Berg et al. (2017) investigated evidence regarding the efficacy of PPD screening in primary care settings. The analysis comprised six studies that satisfied the inclusion criteria. The results revealed improvements in the Edinburgh scale and affirmed that PPD screening leads to positive outcomes regardless of the setting (e.g., during routine newborn screening or primary care). Validated instruments provide reliable and accurate data, which in turn lead to improved outcomes. Furthermore, PPD screening during a well-baby checkup is helpful since the healthcare provider can physically assess whether the mother behaves in a negative or positive way. Primary prevention of PPD may be helpful to include in primary care along with the screening process, which can include preparing women for the events of delivery, initiating breastfeeding, and finding a new balance with daily living activities. Developing coping mechanisms to strengthen maternal self-efficacy in the first weeks of postpartum may also be helpful with decreasing the occurrence of PPD.

Educational Approaches

The lack of sufficient training and education of healthcare staff can negatively affect the diagnosis of PPD in women after childbirth by misdiagnosing or ineffectively treating PPD. Legere et al. (2017) provide a synthesis of professional and learning growth needs and approaches for care providers regarding perinatal depression. The authors of this study presented a systematic review of the literature that critically examines the evidence on educational and professional development needs and strategies for healthcare providers that are focused on prevention, detection, assessment, and care for perinatal depression. The methodology involved a systematic search of the literature in seven health databases. The sample consisted of 2,105 studies, with only 12 studies meeting the inclusion criteria. The results revealed a dearth of formal education in perinatal psychological health. The findings suggest that diverse professional development strategies on identifying and caring for women with PPD have been shown to enhance various outcomes for health care providers. Such outcomes include improved practitioner confidence, increased levels of knowledge, improved screening efficiency, and overall favorable outcomes for women without any reported harm or adverse events. The researchers underscored the role of education in ensuring professional growth in the perinatal care sector and improving mental care outcomes. When providers are properly educated on new screening tools, they can better diagnose patients. Initial education and continuing professional growth may help healthcare professionals caring for women at risk of PPD enhance their awareness of PPD and recognition skills.

Sorg et al. (2019) sought to improve standardized screening for PPD in pediatric primary care and to identify the features of effective PPD screening. The authors employed a quality improvement approach supported by logistic regression for data analysis. They examined the integration of a standardized screening tool on PPD in the pediatric primary care setting. While

no sample was mentioned, the results revealed an increase in PPD screening practices.

Integrating postpartum depression screening into pediatric primary care demonstrated improved detection of maternal postpartum depression. The study also showed that ethnicity and distinct family and infant traits predispose the mother to PPD. Understanding these factors can help develop effective interventions. Screening for postpartum depression would be helpful in decreasing rates if done in the pediatric primary care environment.

In their review, Wang et al. (2021) established the validity and significance of the Patient Health Questionnaire (PHQ)-9 screening tool for PND. The authors conducted a qualitative search on PHQ-9 and EPDS in various databases, such as PsychInfo, Embase, and MEDLINE. The sample comprised 35 articles that were considered eligible based on the inclusion criteria. The results revealed that PHQ-9 yields the same validity as the Edinburgh scale in screening for PPD. The study showed that depression screening can be performed using various tools. The most important consideration is their viability in managing the disorder and their negative implications. Understanding different approaches and screening tools associated with PPD can help effectively diagnose and treat this mental issue.

Quality Improvement Project

Purpose

The primary goal of the Doctor of Nursing Practice (DNP) project is to improve the screening process for postpartum depression by providing an educational intervention for providers on effective screening tools. The purpose of the quality improvement project is to answer the question, “Does a clinical educational intervention increase the knowledge of postpartum depression screening among healthcare providers in a hospital setting?”

Education is an important component in the healthcare field because health care is constantly evolving; hence, it is important for medical providers to remain up to date with their competencies. Lack of sufficient training for medical providers can lead to negative outcomes, such as not diagnosing a patient, late diagnosis, or ineffective treatment of post-partum depression (PPD”; Legere et al., 2017). Jackson’s Health System faces a challenge due to the lack of an effective screening process for diagnosing PPD. Postpartum women currently receive their routine postpartum checkup to assess vaginal bleeding and the healing of incisions, but they are not screened for PPD during their sixth week visit. This timing tends to be critical for postpartum women because they are adjusting to having a new baby, which changes their daily routine and can have a negative impact on their mental health (Oringer et al., 2019). This lack of screening can be due to the lack of knowledge of healthcare providers on how to conduct an effective screening. Effective PPD screening consists of asking the patient specific questions about their mental health state after their sixth week of being postpartum. Proper screening also provides insight on how well the mother interacts with the baby as part of her new family dynamic (Legere et al., 2017). The primary project goal is to further improve the postpartum depression (PPD) screening process by increasing the knowledge of healthcare providers through an educational intervention.

PICO Question

Does a clinical educational intervention increase the knowledge of postpartum depression screening among healthcare providers in a hospital setting?

- **P**opulation: Healthcare providers in a hospital setting
- **I**ntervention: Education intervention
- **C**omparison: None

- **Outcome:** Increased knowledge of postpartum depression screening

Objectives

The DNP project's objectives include improving results by solving established challenges in healthcare, developing evidence-based practice (EBP) expertise, and laying the groundwork for prospective practice scholarship (Zellefrow, 2019). The SMART tool is a well-established framework used to achieve goals that are specific, measurable, attainable, relevant, and time bound (SAMHSA, 2021). To meet the criteria for establishing an educational intervention to enhance the screening process for PPD, the author created the following goals:

1. Establishment of an improved PPD screening process as a standard of care at JMHS.
2. Improved healthcare provider screening of PPD due to increased knowledge about the symptomatology of the disease.
3. Maintenance of staff competence about the importance of PPD screening through participation in the educational intervention once a year.
4. Decreased morbidity and mortality for mothers secondary to early diagnosis and treatment for PPD.
5. Decreased negative outcomes for children of mothers with PPD due to early diagnosis and treatment for the mother.

Definition of Terms

The following terms are commonly used in the DNP proposal and may require further description and clarification.

“Postpartum” is defined as “following childbirth or the birth of young” (Merriam-Webster, n.d.). Throughout the literature, the author applies this term in reference to the population of women who may be affected by depression.

“Postpartum depression screening” is defined as “a tool used to find out if a mother has postpartum depression” (Medline, 2020).

“Healthcare providers” is defined as “a doctor of medicine or osteopathy, podiatrist, dentist, chiropractor, clinical psychologist, optometrist, nurse practitioner, nurse-midwife, or a clinical social worker who is authorized to practice by the state and performing within the scope of their practice as defined by state law” (Berkeley, 2021).

“Educational intervention” is defined as “an opportunity to gain the acquired skills being taught by an educational system that would address the functional, academic, cognitive, behavioral, and social success that directly affects the ability of those involved” (Lestrud, 2021).

Conceptual Framework

Theory is the foundation of nursing and healthcare, and it is essential to the profession (Marsh, 2013). Providers that interact with women during the postpartum period need to be diligent in recognizing signs and symptoms of PPD as well as being able to adequately educate women on PPD and the range of emotions that they may be experiencing along with the methods of seeking help. Cheryl Beck’s middle range theory of PPD is the theoretical foundation of this DNP project. According to Beck’s theory, the main psychological issue with PPD is that it makes women feel as if they have no control over their impulses, thoughts, and at times even their actions (Marsh, 2013). Her theoretical assumption is that mothers try to cope with the loss of control secondary to PPD through a four-stage process she named *Teetering on the Edge*, since mothers feel on the verge between sanity and insanity, which consists of encountering terror, dying of self, struggling to survive, and regaining control. Beck’s theory allows for healthcare providers to understand the underlying symptomatology of PPD which can lead to early diagnosis and treatment of this condition. The focus of this DNP project is to improve the

PPD screening process so that women who may experience PPD can be treated in a timely manner by a healthcare provider who is properly educated to recognize these symptoms.

Methodology

Study Design

This project followed a quasi-experimental design. Initially, the participants completed a pre-test, and after they were provided with an educational intervention, they completed a post-test. The post-test was an exact replica of the pre-test, as participants were asked the same questions. Providing a pre- and post-test allowed the DNP candidate to determine if knowledge was acquired after implementation of the educational intervention.

Setting and Sample

The setting for this quality improvement project occurred at the main outpatient center at JMH. Jackson Health System, formerly known as Miami City Hospital, first opened its doors in June 1918 and has come to be known as a nonprofit academic medical center dedicated to providing world-class service to everyone who enters its doors. Jackson Health System is governed by the Public Health Trust, a group of community volunteers who work on behalf of the Miami-Dade Board of County Commissioners to ensure that all citizens of Miami-Dade County enjoy a high level of service regardless of their financial means. This health system offers numerous services including maternal health. Since PPD screening is not solely conducted by physicians, a multidisciplinary approach regarding the implementation of the educational intervention was determined to be the best choice. A minimum of 25 participants were intended to be recruited, including physicians (obstetric residents and fellows), registered nurses, nurse practitioners, and medical assistants.

Intervention, Measurements, and Instruments

This research is a quality improvement project that assessed the current screening process for PPD at JMHS. The educational intervention consisted of a PowerPoint presentation conducted by the DNP student that discussed evidenced-based PPD screening processes and its importance in women's health. The presentation also discussed the most effective way to screen for PPD in patients during their 6-week postpartum visit. The educational presentation was geared toward healthcare providers (e.g., physicians, registered nurses, and advanced nurse practitioners) who conduct the screening process for each patient at six weeks postpartum. Participants of the educational intervention were chosen on a volunteer basis.

A pre-test on the participants' current knowledge of PPD was administered via Qualtrics to assess the healthcare providers' knowledge of the current screening process prior to the presentation. Participants then viewed a virtual educational PowerPoint presentation explaining the correct process and benefits of effective screening for PPD. The length of this presentation was approximately 20 minutes. Furthermore, the DNP candidate conducted the entire intervention with assistance from the DNP clinical advisor as needed. A post-test was administered after the educational intervention was completed via a link through Qualtrics.

The pre- and post-test administration were performed via Qualtrics, a web-based software that allows the user to create surveys and generate reports using a variety of distribution means. A 16-item pre- and post-test was given to the participants to assess their knowledge on PPD screening, and these were scored based on the number of correct answers. The effectiveness of the intervention was evaluated based on the difference of scores between the pre- and post-test.

Data Collection Procedures

The subjects consisted of healthcare providers who are staff at the organization. Participants were sent a recruitment email that included the consent form and a Qualtrics link to

the pre-questionnaire. The individuals who were interested in participating signed an informed consent form indicating their understanding of the project and willingness to participate.

Participants were able to receive access to the virtual presentation information via the Qualtrics link sent in the recruitment email. Once the presentation concluded, a post-questionnaire was made available via an emailed link. Participants were also made aware of how utilization of the data would be managed.

Data Analysis

The pre- and post-tests were completed by the participants before and after the educational presentation. Statistical data analysis was performed utilizing a samples paired t-test to determine if a significant statistical difference existed between the two sets of observations (pre- and post-test). The scores allowed the author to determine if the educational intervention made a significant difference in the participants' knowledge acquisition regarding evidenced-based PPD screening processes, its importance in women's health, and the most effective way to screen for PPD in patients during their 6-week postpartum visit.

Protection of Human Subjects

The protection of human subjects was established through Florida International University (FIU) and JMH's Institutional Review Board (IRB) approval. The sample population consisted of employed staff within the Jackson Healthcare organization. Responses to the recruitment email were managed to keep track of all the participants involved, but their completed pre- and post- test results were kept confidential and anonymous via the Qualtrics platform. Participant benefits include new knowledge of clinical screening processes for PPD.

Dissemination Plan

The DNP project results was presented at the JMHS facility to leaders and educators to provide the organization with information regarding PPD screening. The DNP project will be presented at the Association of Women’s Health, Obstetric and Neonatal Nurses (AWHONN) convention either as a podium or poster presentation. The AWHONN is a non-profit organization that empowers and supports healthcare providers on care for women and newborns through research, education, and advocacy. The Maternal and Child Health Journal and Journal of Pediatric Nursing are both peer-reviewed journals where the DNP project will be submitted for publication.

Results

Pre- and Post-Intervention Sample

A total of 10 healthcare providers participated in the pre-intervention questionnaire, and the same 10 individuals participated in the post-intervention questionnaire. Most of the participants were female (80%) and in between the ages of 20 to 30 (60%). The sample also consisted of mostly registered nurses (40%), that identified mostly with the black ethnicity (40%), and half of the entire sample had between 2-4 years of experience (50%). Table 1 references the healthcare providers’ demographics based on gender, age, position, ethnicity, and years of experience.

Table 1

Pre- and Post-Intervention Participants’ Demographic Data

Characteristic	Total Sample	%
	(N=10)	
Gender		
Male	2	20
Female	8	80
Age		
20–30	6	60

30–40	3	30
40–50	0	0
> 50	1	10
Position		
RN	4	40
APRN	2	20
OB Resident	3	30
OB Attending	0	0
Medical Assistant	0	0
Other: Family Medicine Resident	1	10
Ethnicity		
White	2	20
Black	4	40
Hispanic	2	20
Asian	1	10
Other	1	10
Years of Experience		
0–1	2	20
2–4	5	50
4–5	2	20
< 6	1	10

Training

Participants were asked if they had previously received educational training regarding postpartum depression screening. In the initial pre-test questionnaire, 40% of the respondents stated they had received adequate training and 60% declined to receiving training (Figure 1), while 30% of the respondents felt confident in diagnosing and treating a woman who has postpartum depression and 70% did not feel confident (Figure 2). In the post-test questionnaire after presenting the educational intervention, 80% of the respondents felt they had received adequate training in PPD screening and 20% declined to receiving training (Figure 3), while 70% of the respondents felt confident in diagnosing and treating PPD and 30% did not (Figure 4).

Figure 1

Pre-test Questionnaire Responses Regarding Training for PPD Screening

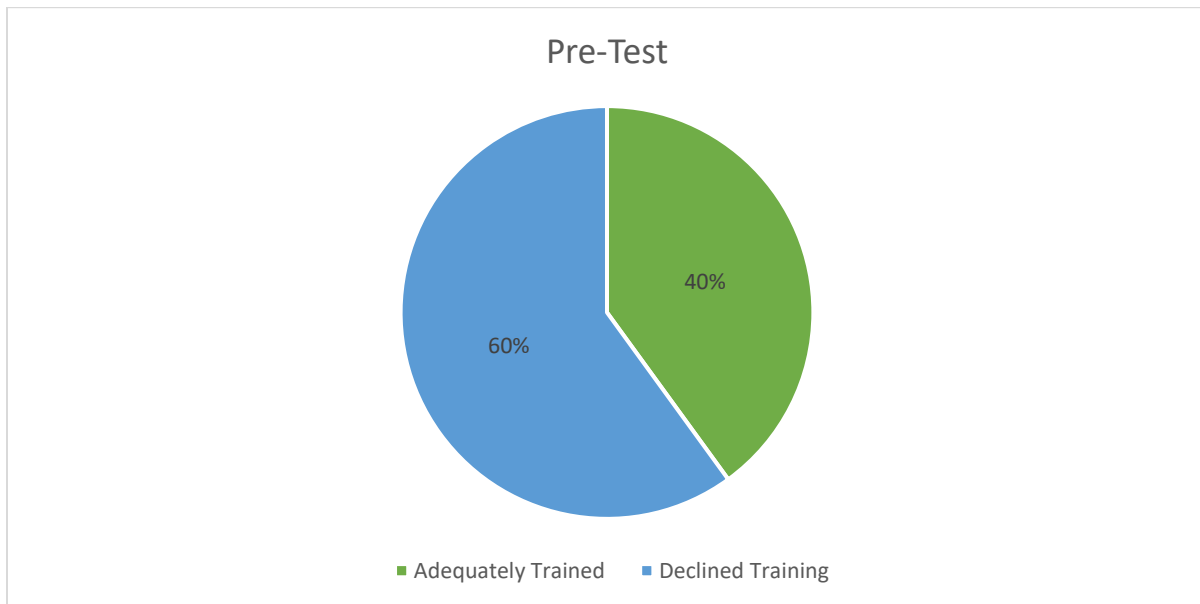


Figure 2

Pre-test Questionnaire Responses Regarding Feeling Confident in treating women with PPD

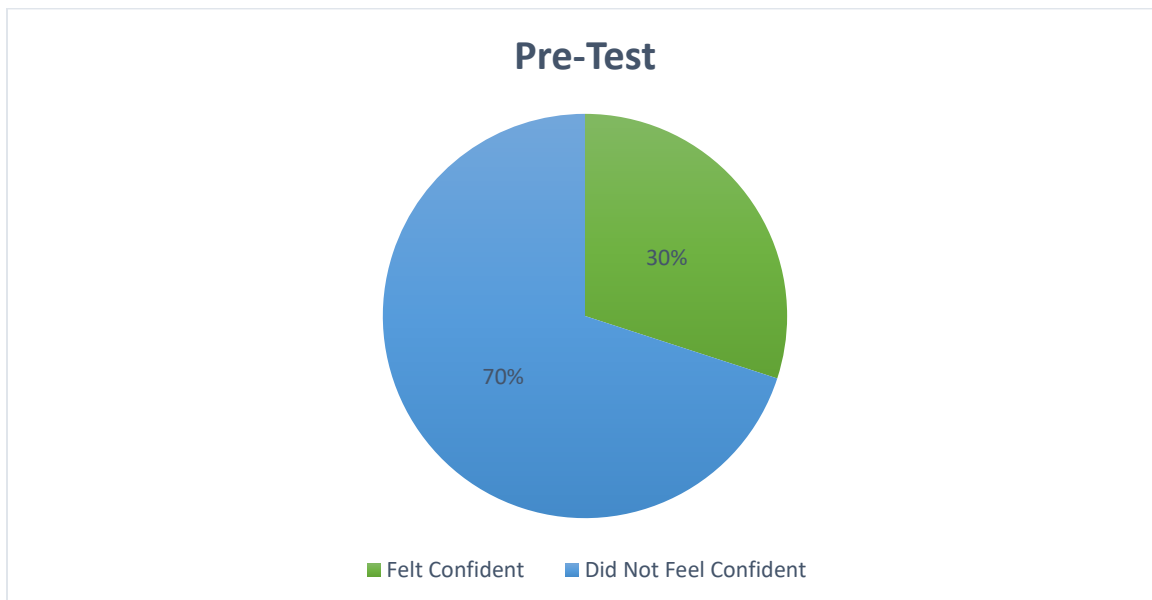
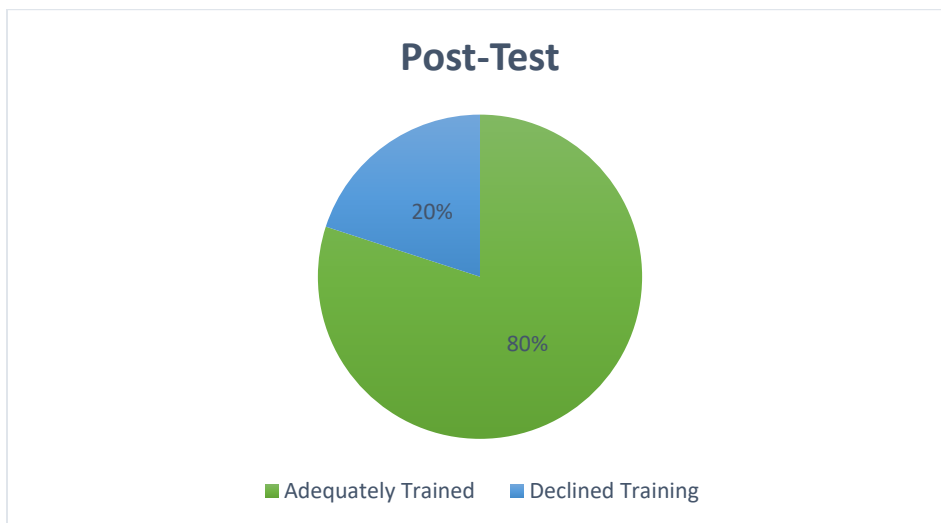
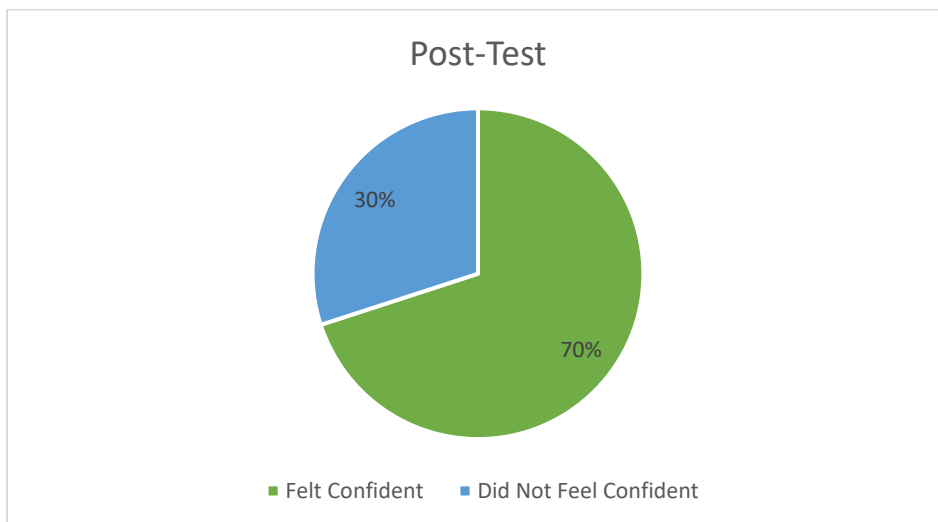


Figure 3

Post-test Questionnaire Responses Regarding Training for PPD screening

**Figure 4**

Post-Test Questionnaire Responses Regarding Feeling Confident in treating a woman with PPD



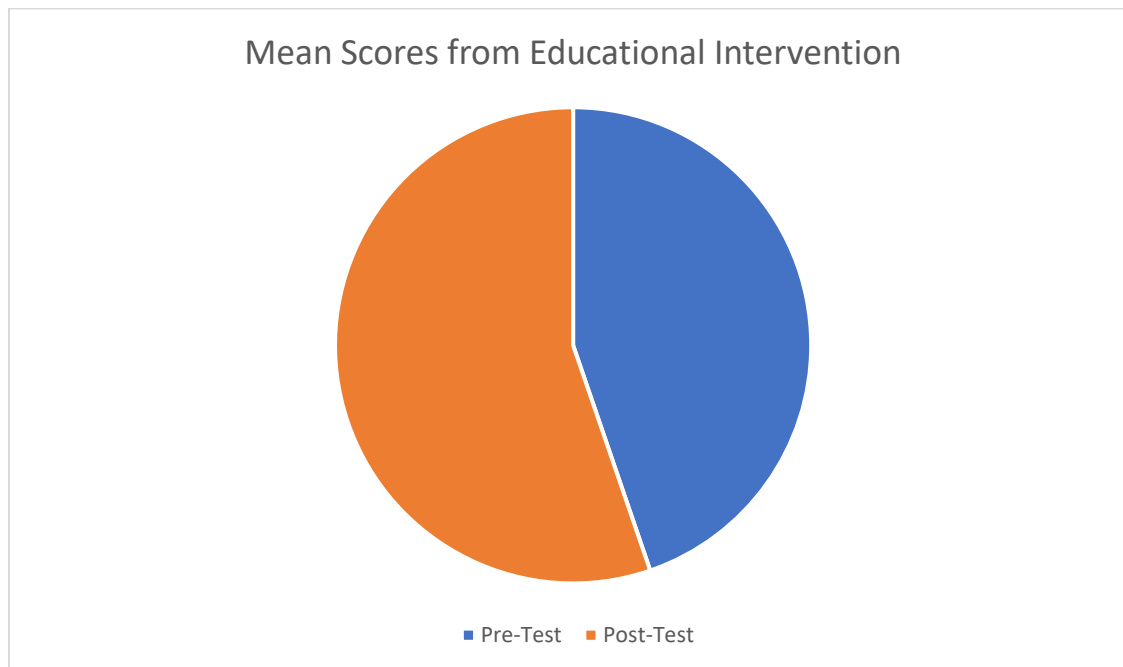
Pre-test and Post-test Analysis

In the pre-test survey, participants' knowledge was assessed utilizing multiple questions related to PPD and its associated treatment. At baseline, scores ranged from 6 to 13 with an average of 9.8 out of 15. After the post educational intervention, scores ranged from 10 to 14

with an average of 12.4 out of 15. The change in knowledge was found to be statistically different by 11%, post educational intervention (Figure 5).

Figure 5

Mean Difference in Pre and Post-Test scores



Discussion

PPD remains highly underdiagnosed in the United States (MDHSS, 2020). This occurrence may be due to healthcare professionals' lack of understanding of the condition and/or of the screening procedures employed to detect PPD. Excessive vaginal bleeding is an objective clinical symptom that may occur following childbirth, and while it can be easily assessed and quantified, mental health issues are subjective and may be more difficult to assess and measure. Analysis of the literature indicates that many doctors and healthcare providers are not aware of the universal screening tool for PPD (de Paula Eduardo et al., 2019). On the one hand, the screening tool may not be used often when evaluating a postpartum mother, which may be the reason why healthcare providers are not familiar with the tool. Even when clinicians are aware of

the screening tool, they are still reluctant to use it as they fear that it may be too time-consuming and expensive (Legere et al., 2017). Healthcare providers are tasked with caring for large numbers of patients, and they may be more willing to use the tool if they are reassured of the tool's effectiveness, feasibility regarding use, and low cost.

In addition, healthcare providers may be unsure how to proceed with the treatment of women who are positive for PPD, which contributes to the severity of the problem (Mohammad Redzuan et al., 2020). Education on PPD screening and treatment is critical because it may increase healthcare providers' self-confidence in their ability to conduct the screening, which thereby increases the effectiveness of the diagnostic process. Timely diagnosis is associated with proper treatment that ensures effective patient outcomes (Shorey et al., 2018). To avoid possible negative consequences such as major depressive disorder (MDD) or suicidal ideation, it is important to treat PPD as soon as the first signs and symptoms appear by performing an effective screening. The findings from the QI project demonstrate that implementing a targeted educational program on a postpartum depression screening tools positively increase the knowledge of healthcare providers who care for new mothers.

A lack of public awareness about PPD, its consequences, and an absence of effective screening strategies may prevent its successful management and treatment (Kang et al., 2019). Increasing awareness about PPD and how to screen for it may improve its diagnosis and early treatment. Nurses, midwives, and other healthcare professionals should be trained to successfully diagnose PPD symptoms, such as a lack of interest in caring for the baby, and such professionals should offer high-quality, evidence-based care to perinatal women suffering from this condition (Shorey et al., 2018). Being cared for by a healthcare provider who is competent in their skills to assess for risk factors related to PPD is beneficial for the patient, and alternatively, healthcare

providers' lack of knowledge about PPD can also contribute to negative attitudes about screening processes, which can place the women's health at risk (Legere et al., 2017). Increasing awareness of PPD and its consequences through clinical education may improve the diagnosis and treatment of this condition.

The Edinburgh Postnatal Depression Scale (EPDS) is considered to be the universal screening tool to assess PPD (Kang et al., 2019). It is a 10-item questionnaire that has adequate sensitivity and specificity to identify depressive symptoms in the antenatal and postnatal period, and it aims to help women who may benefit from follow-up care. A total score of 13 or more is considered a positive screening or a "red flag" and will warrant the need for a follow-up of possible depressive symptoms. Healthcare professionals should be particularly attentive to patients who score positive on Question 10, as they may experience an increased risk of harming not only themselves, but also their children.

The EPDS is an effective tool that helps healthcare providers detect PPD, and this scale is important because it allows healthcare providers to distinguish whether the patient may be in distress or in a depressive state due to having a newborn (CDC, 2020). To differentiate between mild and severe symptoms of PPD, the EPDS is used in the screening process. Pregnancy and postpartum may be an emotionally charged time in which women report changes in their mood and affect. Therefore, it is important for healthcare providers to be trained on how to use this screening tool effectively to prevent the deleterious effects of PPD from occurring.

Given the possible negative consequences, it is important for healthcare providers to have sufficient knowledge about properly screening for PPD. Relatedly, they should not practice any assessment or screening that they are not fully trained to manage (Legere et al., 2017). Education may help healthcare providers become more familiar with PPD screening. To refine

competencies and to continue providing high quality care, healthcare providers must have access to continued education that focuses on PPD (Oringer et al., 2019). Education for healthcare providers is critical and should be readily available to ensure that adequate treatment is provided to patients. When considering conditions that may have significant implications for women and their infants, healthcare professionals must show evidence-based expertise, skills, temperament, and judgment in the field of perinatal care (Legere et al., 2017). It is important for healthcare providers to have adequate knowledge to accurately recognize the signs and symptoms of PPD to ensure appropriate treatment.

Implications for Advanced Nursing Practice

Obstetricians-gynecologists and other obstetric care providers should screen patients for depression and anxiety symptoms at least once throughout the perinatal period using a standardized, validated test, according to the American College of Obstetricians and Gynecologists (ACOG, 2021). Previous research has provided evidence that screening alone can have clinical advantages, but the greatest benefit comes from initiating treatment or referring to mental healthcare professionals. Healthcare providers, which includes advanced nurse practitioners, OBGYN attendings, residents, and fellows, should be prepared to start medical treatment, send patients to appropriate mental health facilities, or do both as necessary (ACOG, 2021). As important stakeholders in the OBGYN practice, advanced practice registered nurses (APRNS) are required to learn and use standardized, evidence-based techniques to screen and care for patients with postpartum depression. The scope and standards of practice for nurse practitioners urges them to follow recommendations that promote more and better screenings, enhance patient care quality and decision-making methods, and provide prompt diagnosis and treatment.

Limitations

Limitations to the QI project included the time frame the project was allotted, which contributed to the small number of participants. The delay in approval by the facility created a short time frame to encourage participants to sign up in a timely manner. Furthermore, the project survey coincided with the daily flow of the clinic hours, making participation an extra task in addition to other daily work responsibilities of the participants.

Conclusion

Postpartum depression screening continues to be an important cornerstone of maternal and infant preventative care. Improper or absent screening can lead to a definitive number of issues for maternal and infant care. Postpartum women should be screened for PPD at their 6-week check-up, but screening is often missed due to the high census of many facilities and a lack of provider knowledge and confidence to screen. A commonly used tool for PPD screening is the Edinburgh Postnatal Depression Scale that specifically includes screening for anxiety and depression symptoms that are a prominent feature of perinatal mood during and after pregnancy. Given the possible severe symptoms of PPD, it is essential for healthcare providers to be knowledgeable on the adequate screening processes for the condition.

Health education has been found to be an effective intervention to help improve PPD screening by increasing the knowledge of healthcare providers. As a result, healthcare practitioners and their organizations would benefit from developing and implementing educational programs to increase clinicians' knowledge and attitudes to influence a successful PPD screening process. This effort can result in improved diagnosis and treatment by symptom control as well as a higher rate of recovery. As demonstrated by the findings of the QI project, a systematic, collaborative, and interdisciplinary strategy as well as an education and awareness

campaign may be used to activate the needed educational module.

This project may inspire future efforts to establish innovative ways and strategies for enhancing the quality of postpartum depression screening procedures by healthcare practitioners, with the goal of benefiting people who are afflicted. Nurse practitioners and other healthcare providers may continue to contribute to nursing knowledge by developing innovative ways to improve the healthcare practice, such as conducting research to better assess knowledge and facilitate clinical analysis (ANA, 2015).

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Appendix A

Participant Questionnaire



PRETEST-POSTTEST

Increasing Knowledge of Postpartum Depression (PPD) Screening Amongst Healthcare Providers: A quality improvement project.

Introduction:

This questionnaire is an essential part of a quality improvement project aiming to increase the knowledge of PPD amongst healthcare providers.

Please, answer to the best of your knowledge. Your response will help to understand gaps in knowledge and room for improvement. The questions are structured to assess your understanding of current PPD screening practices.

- *Please do not write your name or other personal information on this questionnaire.*
- *Your answers are anonymous and will be kept confidential.*
- *Your participation is voluntary and will not have any bearing on your position.*

Demographic:

Gender: Female _____ Male _____ Other _____ Wish not to disclose _____

Age: 20-30 yrs. _____ 30-40 yrs _____ 40-50 yrs _____ >50 yrs _____

Position: Registered Nurse _____ OB Resident _____ OB Fellow/Attending _____

Nurse Practitioner _____ Medical Assistant _____ Other: _____

How long have you worked at this facility? _____

Ethnicity: White _____ Black _____ Hispanic _____ Asian _____ Other _____

Questionnaire:

Have you received any type of training on conducting postpartum depression screening?
(Please check yes or no below)

_____ No _____ Yes

Do you feel confident in diagnosing and treating a woman who has postpartum depression?
(Please check yes or no below)

_____ No _____ Yes

The following questions will assess your knowledge and you will need to indicate whether the statement is true or false.

1. It is recommended that obstetrician-gynecologists (OBGYN) and other obstetric care providers screen patients at least once during the perinatal period for depression and anxiety symptoms using a standardized, validated tool.
 - a. True b. False

2. Which screening instrument has **not** been validated for use during pregnancy and in the postpartum period?
 - a. Edinburgh Postnatal Depression Scale c. Beck Depression Inventory-II
 - b. Patient Health Questionnaire 9 d. Mini-Mental State Exam

3. Postpartum depression can be screened at a pediatric clinic if the mother presents symptoms.
 - a. True b. False

4. Based on the EPDS screening, when should referral to a mental healthcare provider be initiated in women with postpartum depression?

- a. Score of 11
 - b. Score of 14
 - c. Score of 12
 - d. Score of 13
5. When are postpartum women more likely to experience major or minor depressive episodes?
- a. 12 weeks postpartum
 - b. 6-8 weeks postpartum
 - c. 12-18 weeks postpartum
 - d. all the above
6. When should OBGYN healthcare providers initiate medication therapy for women with post-partum depression based on the EPDS screening?
- a. Score of 9
 - b. Score of 10
 - c. Score of 12
 - d. Score of 16
7. All the following are considered risks for perinatal depression except:
- a) Unintended pregnancy
 - b) Domestic Violence
 - c) Low Levels of Social Support
 - d) Traumatic Birth Experience
 - e) Good Relationship Quality
8. Women with postpartum depression should be monitored closely if any of the following health conditions are present, **except for:**

- a) Suicidal thoughts
 - b) Previous history of severe depression
 - c) Dramatic change in hormone levels intra- and postpartum
 - d) High stress of new motherhood
 - e) No changes in thyroid function
9. All the following Depression Screening Tools are accepted screening instruments to use when aiding in the diagnosis of postpartum depression, **except**:
- a) Edinburgh Postnatal Depression Scale (EPDS)
 - b) Mini-Mental State Exam (MMSE)
 - c) Beck Depression Inventory-II
 - d) Patient Health Questionnaire 9 (PHQ-9)
10. What should be the initial treatment for women with mild postpartum depression?
- a) Antidepressants
 - b) Anti-seizure medications
 - c) Anti-psychotics
 - d) Cognitive Behavioral Therapy (CBT)

11. What is the drug of choice for treatment of PPD?
- a. Antipsychotics
 - b. Antianxiety
 - c. Antidepressants
 - d. Antiemetics
12. What is the recommended cut-off score for a positive screen using the EPDS?
- a. 12.
 - b. 13.
 - c. 10
 - d. 11
13. Which medical condition can mirror the same symptoms of postpartum depression?
- a. hyperthyroidism
 - b. hypothyroidism
 - c. pituitary adenoma
 - d. prolactin deficiency
14. For a woman with postpartum depression, which medical diagnosis or score on the EPDS should an OBGYN healthcare provider consider a medical emergency?
- a. EPDS score > 10
 - b. EPDS score < 10
 - c. Postpartum psychosis
 - d. Bipolar disorder
15. For a woman with postpartum depression, which medical diagnosis or score on the EPDS should an OBGYN healthcare provider consult a mental health provider for?

a. EPDS score > 14

c. Postpartum psychosis

b. EPDS score < 10

d. Bipolar disorder

Appendix B

Jackson Health System Approval



JHS Office of Research
 Jackson Medical Towers, Ste. 803
 1500 NW 12th Avenue
 Miami, FL, 33136

November 4, 2021

To: Dr. Ivette Hidalgo

CC: Ashley Reid

The JHS Clinical Trial Office on October 20, 2021 reviewed the Non-Human Subject Research protocol approved by JHS Council and CNO Council. This quality improvement project is now approved and may commence at Jackson Health System.

Study Title: “Increasing Knowledge of Postpartum Depression Screening Amongst Healthcare Providers: A Quality Improvement Project.”

Principal Investigator: Dr. Ivette Hidalgo
 Ashley Reid

Type of Study: Quality improvement project

Enrollment Target: Local Site: Up to 10

Participants **Study Approved Time:** 1 year

Study fees waived in support of Nursing Program

It is noted, the Office of Research Integrity Research Compliance, from Florida International University Evaluated a Non-Human Subjects Research Application Protocol Title: Proposal Title:
 “Increasing Knowledge of Postpartum Depression Screening Amongst Healthcare Providers: A Quality Improvement Project.”

Approval # IRB-21-0331-AM01

Reference # 110577

Principal Investigator must notify to the Research Integrity Division of Research at Florida International University and JHS Clinical Trial Office if the proposed activity changes and becomes human subject research.

- A participant enrollment form must be submitted to Clinical Trials Office <ClinicalTrialsOffice@jhsmiami.org> on a timely basis.
- If any manuscript resulting from this research is accepted by a Medical Journal for publication, please notify the Clinical Trials Office by submitting a copy to jhs-pub-notifications@jhsmiami.org

This study must be conducted in accordance with the JHS approval.

Thank you for working with the JHS Office of Research.

**Veronica Del Prete
Research Program Coordinator of Clinical Trials**

**Katuska Barbery, MBA
Director of Clinical Trials**

Appendix C
Letter of Recruitment

Recruitment email for Increasing Knowledge of Postpartum Depression Screening Amongst Healthcare Providers: A quality improvement project

Dear JMH Healthcare provider,

My name is Ashley B. Reid and I am a student from the Graduate Nursing Department at Florida International University. I am writing to you to invite you to participate in my quality improvement project. The goal of this project is to increase healthcare providers' knowledge on postpartum depression screening. You are eligible to take part in this project because you are a healthcare provider at Jackson Memorial Hospital, and you provide or may provide care to postpartum women. I am contacting you with the permission of your organization director and the Nursing and Evidence Board Council at Jackson Memorial Hospital. If you decide to participate in this project, you will be asked to complete and sign a consent form for participation. You will complete a pre-test questionnaire, which is expected to take approximately 10-15 minutes. Then, you will be asked to view an approximately 20-minute long educational presentation online. After watching the educational presentation, you will be asked to complete the post-test questionnaire, which is expected to take approximately 10-15 minutes. No compensation will be provided.

If you would like to participate, please click on the link https://fiu.qualtrics.com/jfe/form/SV_393AmvDSVWki1My. If you have any questions about the study, please email or contact me at [REDACTED] or [REDACTED].

Thank you for your participation.

Sincerely,
Ashley B. Reid, MSN, APRN, FNP-BC


Appendix D

IRB Approval Letter Florida International University



Office of Research Integrity
Research Compliance, MARC 414

MEMORANDUM

To: Dr. Ivette Hidalgo
CC: Ashley Reid
From: Maria Melendez-Vargas, MIBA, IRB Coordinator 
Date: July 26, 2021
Protocol Title: “Increasing Knowledge of Postpartum Depression Screening Amongst Healthcare Providers: A Quality Improvement Project.”

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-21-0331 **IRB Exemption Date:** 07/26/21 **TOPAZ**
Reference #: 110577

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>.