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# Initiating a perinatal depression screening protocol in a community-based hospital

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INITIATING A PERINATAL DEPRESSION SCREENING PROTOCOL  
IN A COMMUNITY-BASED HOSPITAL

Presented in Partial Fulfillment of the  
Requirements for the Degree of  
Doctor of Nursing Practice

Nova Southeastern University  
Health Professions Division  
College of Nursing

Mari Seidu, ARNP  
2016

**NOVA SOUTHEASTERN UNIVERSITY  
HEALTH PROFESSIONS DIVISION  
COLLEGE OF NURSING**

This project, written by Mari Seidu under direction of Sabrina Friedman, Project Chair, and approved by members of the project committee, has been presented and accepted in partial fulfillment of requirements for the degree of

DOCTOR OF NURSING PRACTICE

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## Abstract

**Background:** According to the World Health Organization (WHO), perinatal depression (PD) is the most common childbirth complication. About 10% of pregnant women and about 13% of postpartum women experience a mental health disorder, primarily depression (WHO, 2016). One of the WHO (2016) goals for maternal mental health includes providing strategies for the promotion of psychosocial well-being and prevention of mental disorders of mothers during and after delivery.

**Purpose:** The purpose of this performance improvement project, was to establish a perinatal depression risk screening protocol, and improve nursing knowledge on PD at a community-based hospital in Miami.

**Theoretical Framework:** Beck's postpartum depression theory

**Method:** The project gained support and buy-in from the administration and management team of the healthcare institution. It included a comprehensive literature review used as a guide to establishing a perinatal depression screening protocol. Finally, staff nurses received education on PD, followed by an assessment for improved knowledge and retention of information.

**Result:** A paired-samples *t*-test was conducted to compare pretest and posttest results for Registered nurses after receiving education on perinatal depression,  $N = 70$ . The results suggested improved knowledge and retention of new information.

**Conclusion:** The perinatal depression screening protocol provided a framework for the assessment and first-line management for perinatal depression. There was evidence of improved nursing knowledge, and retention of information on maternal mood disorders especially perinatal depression.

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## Chapter 1

### Nature of Project and Problem Identification

According to the World Health Organization (WHO), depression is a common mental health disorder that affects more than 350 million people globally. Women are disproportionately affected more by depression than men, and women of childbearing age are at a higher risk of depression. Depression is a disease of the mind in which the individual experiences sadness, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, feelings of tiredness, and poor concentration.

Depression can be for a short period of time or can be recurrent. Untreated depression can ultimately impair an individual's ability to function at work or school or even cope with activities of daily living. Mild depression can be treated with talk therapy such as cognitive behavioral therapy, but moderate or severe depression usually requires medication. Failure to identify and treat severe depression can result in physical harm to self or others or even suicide, which causes more than 1 million deaths worldwide annually (WHO, 2015a). For the majority of people who suffer from depression, non-specialists can appropriately manage their symptoms as part of primary healthcare. However, for those with severe, complicated depression, specialist care is required when first-line treatment fails to resolve symptoms (WHO, 2015b).

Depression after childbirth affects about 13% of women worldwide, the rate is higher in developing countries, about 15% for pregnant women and 10% for postpartum women (WHO, 2016). Undiagnosed depression during pregnancy is the highest risk

factor for depression and anxiety in the postpartum period (WHO, 2013). For most women, pregnancy and childbirth are joyous and anticipated experiences. However, for some women, this experience can be negatively impacted by depression and uncontrolled anxiety. The American Psychiatric Association's (APA, 2013) *Diagnostic and statistical manual of mental disorders* (DSM-5) defines perinatal depression as a major depressive episode with an onset in pregnancy or within 4 weeks of delivery. The Centers for Disease Control and Prevention (CDC) estimates that perinatal depression affects about 11% to 18% of women (CDC, 2015).

According to the American Psychological Association (APA, 2015), perinatal depression is a serious mental health problem characterized by a prolonged period of emotional disturbance, occurring at a time of major life change and increased responsibilities in the care of a newborn. Perinatal depression can have significant consequences for both the new mother and her family. Many factors predispose a woman to developing perinatal depression; these include a decline or fluctuation in reproductive hormones such as estrogen and progesterone, a previous experience of depression, anxiety, personal or family history of depression, marital dysfunction, and younger motherhood (APA, 2015). Acute stressors, such as childcare problems, death of a loved one, low level of social support, difficult infant temperament, and the incongruity between the expectations and reality of motherhood contribute to the risk factors for perinatal depression (APA, 2015).

Depression during pregnancy can result in postpartum depression (PPD), and half of the cases of diagnosable PPD may actually start during pregnancy. Successful prevention strategies can include social support from family friends and support groups.

Obtaining adequate rest and sleep by cutting down on responsibilities without cutting down on outside interests can also help prevent PPD (APA, 2015).

All pregnant and postpartum women should be screened for Perinatal Depression (PD) risk, and those identified should receive adequate and timely mental healthcare. Many treatment options are proven to be effective for managing PD, including cognitive behavioral and interpersonal therapy (APA, 2015). The Association of Women's Health Obstetrics and Neonatal Nurses (AWHONN, 2015) holds the position statement that all pregnant and postpartum women should be screened for mood and anxiety disorders. Nurses are in an optimal position to screen and identify women at risk for perinatal mood disorders, provide adequate first line treatment and management, educate patients and family members, and facilitate effective outpatient community referrals (AWHONN, 2015). All facilities that provide care for pregnant and postpartum women and newborns should have a formal screening protocol and referral program for perinatal mood disorders. AWHONN (2015) also advocates for the implementation of legislation, policies, and public health initiatives that help raise awareness, remove stigma, reduce barriers to treatment, and expand research related to perinatal mood and anxiety disorders.

The symptoms of perinatal depression are similar to symptoms for depression, such as feelings of sadness; loss of interest in fun activities; changes in appetite, sleep disturbance, and decreased energy; problems thinking, concentrating, and making decisions; feelings of worthlessness, shame, or guilt; and thoughts that life is not worth living. In addition to these symptoms of depression, PD also includes feeling numb or disconnected to the newborn or having scary or negative thoughts about the baby, such as

thinking someone will take their baby away or hurt the baby. Other thoughts that may exist include feelings of not being a good mother, shame of not being capable of caring for the baby, or even thoughts of harming the baby (CDC, 2015).

Prenatal education and screening for depression at hospital delivery is feasible and results in the majority of women being educated and screened for PD. However, missed opportunities for education and screening exist (Farr, Denk, Dahms, & Dietz, 2014).

The American College of Obstetricians and Gynecologists (ACOG) holds the position statement that mental health screening during and after pregnancy has the potential to benefit a woman and her family and should be strongly considered. Women with a positive screening require follow-up evaluation and treatment if indicated. Medical practices are encouraged to have a referral process for patients identified as at risk. Women with current depression or a history of depression or any mental illness should be monitored closely and evaluated (ACOG, 2015). Nurses and healthcare providers should screen women admitted to the hospital as a result of medical complications during pregnancy for depression and anxiety. Early identification for potential PD risk can facilitate prevention and management. Treatment of depression after pregnancy can place a financial burden on the new mother and her family. Some women have to be admitted to psychiatric facilities, which keeps them away from their newborn and can break down the family unit

Perinatal depression, including major and minor depression occurring during pregnancy or in the first 12 months after delivery, is one of the most common medical complications during pregnancy and the postpartum period and affects about one in seven

women (ACOG, 2015). Even though perinatal depression or PD has the potential to affect women from all races and socioeconomic backgrounds, women who experience pregnancy and birth complications have a significantly higher risk for developing PD than those who experience normal, uncomplicated pregnancies and delivery (CDC, 2015). Women who experience pregnancy or birth complications also have a higher incidence of babies requiring neonatal intensive care admission due to prematurity or infant illness, which further increases their risk for PD and anxiety (Segres, McCabe, Chuffo-Siewert, & O'Hara, 2014). Depression during pregnancy and a history of postpartum depression (PPD), in addition to problems during delivery, are identified as strong risk factors for PPD (Vasa, Eldeirawi, Nair, Newsome, & Bates, 2014).

### **Problem Statement**

No established perinatal depression screening protocol is identified in community-based hospital per recommendations by WHO, ACOG, and AHWONN.

### **Purpose Statement**

The purpose of this performance improvement project was to establish a perinatal depression risk screening protocol for the nursing management of women admitted to the antepartum unit in a community hospital in Miami and to provide education on maternal mood disorders with an emphasis on perinatal depression to the antepartum nurses. The antepartum unit is established for pregnant women who require an extended hospital admission due to medical complications.

### **Project Objectives**

The objectives for this project are as follows:

1. To generate buy-in and support from the hospital administration, management, physicians, and the Institutional Review board for the initiation of a perinatal depression risk screening protocol. To conduct a thorough literature search for peer-reviewed, evidence-based recommendations for establishing a successful perinatal depression risk screening protocol in a community-based hospital.
2. To develop a perinatal depression screening protocol
3. To educate the staff nurses in the maternity unit on the risk factors, identification, management, treatment, and prevention of perinatal depression and the perinatal depression screening protocol
4. To assess the retained knowledge of the nursing staff on maternal mood disorders, and the screening protocol

### **Theoretical Foundation**

This project was based on the theoretical framework of Beck's postpartum depression theory, which describes the personal experiences and perceptions of women who experienced perinatal depression.

#### **Beck's Postpartum Depression Theory**

Cheryl Beck developed her postpartum depression theory in 1993 as a result of her extensive studies in postpartum depression. Beck's theory was based on a qualitative study of the experiences of 12 women attending a postpartum depression support group for a total of 18 months. Data were obtained from in-depth taped interviews focusing on the social and psychological problems associated with PPD and the social and psychological process used to resolve it. The main psychological theme identified in the

interviews was a feeling of loss of control of emotions, thought processes, and sometimes even actions (Beck, 1993). Beck labeled this loss of control as teetering on the edge.

This means walking a thin line between sanity and insanity (Beck, 1993). Based on the theoretical assumption of loss of control, Beck developed four stages of PPD experience: (a) encountering terror, (b) dying of self, (c) struggling to survive, and (d) regaining self (Beck, 1993).

**Encountering terror.** Encountering terror may occur between 5 weeks of child birth, up until 6 months postpartum. The woman describes this experience as feeling trapped in her mind and unable to escape. She also experiences feelings of extreme anxiety, described as losing her mind with obsessive thoughts that occur all day and affect sleep. She is unable to shut her mind off, which can result in both psychological and physical exhaustion. She also experiences symptoms of mental foginess, described as a loss of the ability to concentrate or even a loss of motor skills, which can result in involuntary responses (Beck, 1993).

**Dying of self.** Dying of self is described as a feeling of loss of the former self prior to becoming a mother. There is a sense of not feeling normal, and actions are robot like, detached, and void of emotion and caring. The woman usually isolates herself from family and friends and loses interest in things she used to enjoy. She may even develop intrusive thoughts of harming herself or her newborn (Beck, 1993).

**Struggling to survive.** In struggling to survive, the woman finally attempts to seek treatment. She, however, encounters obstacles within the healthcare system. She also experiences disappointment, humiliation, anger, and frustration due to lack of

assistance from family and healthcare providers. She often resorts to praying or joining a support group (Beck, 1993).

**Regaining control.** The final stage in the PPD experience is a very slow process with experiences of good days and bad days. At this point, the woman usually mourns the lost time and experiences with her newborn as a result of her depression. Even though recovery occurs, she is always in fear of the depression reoccurring (Beck, 1993).

### **Application to the Study**

Beck's postpartum depression theory is relevant for nurses and medical providers who work in maternal and child specialty because it provides a theoretical framework for identifying and improving knowledge on maternal mood disorders. Information from the theory will be incorporated into the educational program for the nursing staff. The theory can also be used as a guide for developing the screening protocol. When nurses understand the different processes of PPD, they will be better equipped to identify and help prevent depression during pregnancy. New mothers can also receive information on the risk factors and different stages of PPD to allow them to recognize and compare their own experiences. Beck's PPD theory also includes a PPD screening tool called the Postpartum Depression Screening Scale (PDSS) to easily identify women who might be suffering from PPD. The PDSS is a 35-item Likert-type response scale consisting of seven domains (each of which contains five items): sleeping/eating disturbances, anxiety/insecurity, emotional liability and cognitive impairment, loss of self, guilt/shame, and contemplating harming oneself. The tool is a self-administered questionnaire, which takes about 5 to 15 minutes to complete. Nurses and other healthcare providers can be

easily trained to administer and score the tool and provide adequate follow-up for those identified as suffering from PPD (Beck, 1993).

### **Weaknesses of Theory**

Some weaknesses noted in the application of this theory are that the theory was based on a qualitative study of the PPD reported experiences of 12 White middle class women. These women's experiences of PPD might be different from Black women, Hispanic women, or even those from low socioeconomic backgrounds. The screening scale is also not free, so there is some cost involved in incorporating this theory into clinical practice.

In conclusion, Beck's PPD theory is an appropriate theory for this capstone project because it provides an adequate framework for developing a postpartum depression screening and education protocol. There is, however, a need to consider the possible financial requirement involved in the use of the screening tool.

### **Significance of the Project**

Perinatal depression (PD) is a significant problem in the United States and worldwide. For the woman, emotional difficulties during pregnancy can lead to poor prenatal follow-up, which can predispose her to medical complications. After delivery, she may suffer from PPD and anxiety, which are the most common childbirth complications. A child born to a mother suffering from depression during pregnancy has the risk of a premature delivery due to medical complications resulting in neonatal intensive care admission due to being small for gestational age or having medical problems. For the family, PPD can cause marital conflict, stress, and strain for family members. Maternal depression can also impact society through an increase in healthcare

costs due to prolonged hospitalizations and increased specialists and follow-up requirements.

### **Significance to Nursing Practice**

This project highlighted the significance of utilizing a multidisciplinary collaborative approach in facilitating the success of a nursing initiated performance improvement program. The project may impact nursing practice by providing increased knowledge on PD and other maternal mood disorders. Incorporating Beck's postpartum depression theory into clinical practice will assist the staff nurse in understanding the different stages of PD, promote increased awareness and sensitivity to PD, and improve the maternal nurse's ability to identify pregnant women who might be at risk of or suffering from PD. The screening protocol will provide a structural framework for the nursing staff to facilitate the screening and follow-up process.

### **Significance to Healthcare**

A postpartum depression screening protocol may impact healthcare by satisfying the United Nations' (UNs') millennium developmental goals (MDGs) numbers 3, 4, and 5: to promote gender equality and empower women, to reduce child mortality, and to improve maternal health. The UN established eight MDGs in 2000, committing world leaders to combat poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women. Each goal had a target set for 2015 to monitor progress from 1990, and most are related to quality in healthcare. Women of childbearing age have twice as much risk to be affected by depression than men. Depression can cause great suffering to women and lead to poor work and school function and distress in the family. Screening for depression during and after pregnancy and providing women with

adequate treatment and prevention can help decrease the mental health disparity women face, thereby facilitating the promotion of gender equality and the empowerment of women. Depression during pregnancy and the postpartum period can have an adverse impact on the newborn, such as prematurity and poor nutrition, which can lead to growth retardation and neurological deficits, neglect, or even death. Screening pregnant women for depression can help reduce infant and child mortality. Maternal mental health can also be improved by the establishment of a PD screening protocol in a community hospital because it will facilitate the timely identification of pregnant women who might be at risk of or even suffering from depression or other maternal mood disorders. These women can be provided with adequate prevention or treatment protocols to decrease the negative impact of PD on the woman, her child, family, and society.

### **Significance to Healthcare Delivery**

This project will impact healthcare delivery by providing education to the staff on the maternity unit about the significance, assessment, prevention, and management of maternal mood disorders, especially perinatal depression. Pregnant women in the community hospital will receive a more holistic and complete nursing assessment. Maternal mental health is a significant part of nursing health assessment recommended by the American Nurses Association (ANA) and Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN). Pregnant women admitted to the community hospital will receive improved quality of care provided by nurses who have adequate knowledge and skills in recognizing the risk factors for postpartum depression. These patients and their families will also receive evidence-based information on signs

and symptoms, prevention, and treatment options for PD, which will make them better prepared to recognize PD and seek help in order to prevent complications.

### **Significance to Healthcare Policy**

This project will have a significant impact on healthcare policy by providing a guideline that can be used by staff nurses and other medical providers to use in screening for perinatal depression, patient and staff education, management, and follow-up for perinatal depression. Medical facilities run on policies and procedures to ensure that all providers base their practices on the same established guidelines. The perinatal depression screening protocol will impact healthcare policy by meeting the Joint Commission (TJC) requirement for healthcare institutions to have evidence-based protocols to provide adequate assessment for identifying possible maternal depression. The Joint Commission also requires healthcare institutions to have a policy for staff education on maternal depression and provide a protocol for patient education and community referrals for those identified as at risk or suffering from perinatal depression. The TJC is an independent and not-for-profit organization that accredits and certifies healthcare organizations in the United States, with the mission of improving healthcare by evaluating healthcare organizations and ensuring that they provide safe and effective care at the highest quality and value.

### **Summary**

Establishing a perinatal depression screening protocol in a community-based hospital will have a significant positive impact on nursing practice and healthcare outcomes through the promotion of gender equality and empowerment of women, reduction of child mortality, and the improvement of maternal mental health. This

project will also have a significant impact on healthcare delivery and policy by providing a guideline for nurses and other medical providers to use in assessing patients for risk for PD. The perinatal depression screening protocol will also ensure that the healthcare institution has an evidence-based protocol that complies with The Joint Commission recommendations for patient safety and improved quality of care.

## Chapter 2

### Review of the Literature

About 10% of pregnant women and 13% of postpartum women experience maternal mental health disorders. Maternal mental health problems are a major health challenge globally. A depressed pregnant woman or new mother is at high risk of suicide if not identified and provided with treatment. She has poor functional capacity, and her newborn is at risk of neglect, poor growth and development, or even physical or psychological harm. Many simple and cost-effective interventions can be provided by well-trained non-specialist healthcare providers (WHO, 2015b). Depression during pregnancy and the postpartum period causes unnecessary suffering and disability to the mother and reduces her response to the needs of her child and family. According to the World Health Organization, all women, regardless of race, age, marital status, or socioeconomic background, are at risk of depression during pregnancy and at least 1 year after delivery. However, women who are exposed to poverty, extreme stress, violence, emergency conflict situations, natural disasters, and low social support are at increased risk for specific mental health disorders, including depression, anxiety, post-traumatic stress disorder, and psychosis (WHO, 2015b).

A literature review was conducted using CINAHL, MEDLINE, nursing and medical databases, and professional and governmental agencies. Articles and research studies dating from 2010 to 2016 were included in the review. The search focused on research and articles on the impact, management, treatment, and evidence-based

screening recommendations for perinatal depression. The key words used in the literature search included perinatal depression screening, impact of maternal mood disorders, and treatment and management of postpartum depression.

### **Negative Impact of Perinatal Depression**

According to the Centers for Disease Control and Prevention (CDC, 2015), many women experience depression, including pregnant and postpartum women. The symptoms of depression include feelings of sadness; loss of interest in fun activities; changes in eating, sleeping, and energy; problems in thinking, concentrating, and making decisions; feelings of worthlessness, shame, or guilt; and thoughts that life is not worth living. The woman is diagnosed as being depressed if these symptoms occur together and last for more than a week or two at a time (CDC, 2015). Schetter and Tanner (2012) conducted a systematic review on current research on the negative impact that depression, anxiety, and stress exposure in pregnancy had on maternal and child outcome. The results concluded that there is substantial evidence that anxiety, depression, and stress during pregnancy are significant risk factors for adverse outcomes for mothers and their newborns. Anxiety during pregnancy is associated with preterm delivery, which has adverse implications for fetal neurological development. Chronic stress and depression during pregnancy are associated with lower birth weight with adverse consequences for child development (Schetter & Tanner, 2012).

In a prospective observational study conducted by Wilkie and Deligiannidis (2014) to determine how perinatal depression and anxiety affect obstetric outcomes and perceptions of labor and delivery experiences, women with perinatal depression were found to have a higher risk of preterm labor, induction of labor, and cesarean delivery.

These women also had a higher perception of experiencing a traumatic delivery compared to women who were not experiencing depressive or anxiety symptoms (Wilkie & Deligiannidis, 2014).

A systematic review and meta-analysis conducted to determine whether maternal depression during pregnancy is associated with adverse perinatal and infant outcome concluded that maternal depression during pregnancy is associated with increased odds for premature delivery and decreased breastfeeding initiation; however, the effects were modest. More research of higher methodological quality is required (Grigoriadis et al., 2013). Nakamura, Takeishi, Atogami, and Yoshizawa (2012) conducted a cross-sectional study conducted in Japan that explored the perception of comfort and quality of life in hospitalized, preterm pregnant women compared with pregnant outpatient women and identified that there was a significant decrease in the perception of comfort and quality of life of the hospitalized women compared to the outpatient group. The results of the study suggest that hospitalized pregnant women require more positive psychological and psychosocial support to improve their comfort and quality of life (Nakamura et al., 2012). In a prospective study, Zhu et al. (2014) concluded that infants born to mothers who experienced prenatal stress during pregnancy have a higher incidence of developing lower cognitive ability and less optimal worse behavioral response. Further, the New York City Pregnancy Risk Assessment Monitoring System (PRAMS) concluded that untreated depression during pregnancy increased the likelihood for PPD for women across all groups including African Americans, Asian/Pacific Islanders, and Whites (Liu & Tronick, 2013).

### **Rates of Depression in the Perinatal Period**

In 2013, Wisner et al. conducted a study to assess the rate of depression in pregnant and postpartum women. They screened 10,000 women by phone assessment using the Edinburgh Postnatal Depression Scale (EPDS). Out of all the women screened, 1,396 (14.0%) screened positive. Out of those who screened positive, 33.4% admitted to experiencing undiagnosed depression during pregnancy, 26.5% experienced depression prior to pregnancy, and 19.3% had thoughts of harming self. Babies born to women who suffer from depression and anxiety are at high risk of experiencing a hostile in-utero environment such as elevated placental cortisol levels (O'Donnell, Jensen, Freeman, Khalife, & O'Connor, 2012).

Byatt et al. (2014) conducted a study to assess the rate of reported depression symptoms, anxiety, and rates of mental health treatment among women hospitalized due to high-risk pregnancies, in which 62 participants completed the Edinburgh Postnatal Depression Scale (EPDS) and the Generalized Anxiety Disorder 7-item Scale (GAD-7), which were provided weekly until delivery or discharge and once postpartum. The researchers concluded that 27% screened positive for depression with a score of 10 or higher on the EPDS and 13% scored positive on the GAD-7 with a score of 10 or higher. This study suggests that hospitalized pregnant women are at a high risk of depression and anxiety. It also indicated that a history of mental health treatment or diagnosis was associated with depression and anxiety in pregnancy. However, of all the women who scored 10 or higher on the EPDS, 50%, did not report a past mental health diagnosis (Byatt et al., 2014). Additionally, a study conducted in 2012 concluded that about 8% of women reported experiencing symptoms of depression during pregnancy; also noted in

the findings was that medical- and pregnancy-related complications during pregnancy increased a woman's risk for PPD (Ko, Farr, Dietz, & Robbins, 2012).

### **Recommendations for Screening and Management**

The WHO's 2015 objectives for maternal mental health include reinforcing advocacy and providing global leadership for the mental health of mothers, encouraging community-based programs for early identification and management of maternal mental health disorder, facilitating strategies for promoting psychosocial well-being, promoting the prevention of mental disorders of women during pregnancy and the postpartum period, and supporting evidence-based research relevant to maternal mental health. To support these objectives, the WHO recommends the integration of maternal mental health screening and management into general healthcare, including women's health, maternal and child healthcare, reproductive health, and other relevant services (WHO, 2015). In order to support different countries in the development of a cost-effective screening and management program for maternal mood disorders, in 2015, the WHO created an electronically distributed a manual entitled *Thinking Healthy: A Manual for Psychosocial Management of Perinatal Depression*. Community leaders and healthcare institutions can freely download and use this manual as a guideline in the establishment of their own perinatal depression screening and management programs suitable to their target population to improve the safety and quality of health of women, their newborns, and families.

According to the American Academy of Pediatrics (2015), infants of depressed mothers are at risk for delays in development and impaired social interaction. When depression is identified in pregnant or postpartum women, many effective treatment

options are available, such as increased social support, optimization of nutritional status, personalized exercise plans, yoga therapy, cognitive behavioral therapy, and antidepressant medications such as selective serotonin reuptake inhibitors (SSRIs) to warrant screening of all women in both inpatient and outpatient settings. A study conducted in 2012 to evaluate the feasibility of implementing systematic screening in a large obstetrical practice and to evaluate the degree that detection and referral led to linkage with behavioral healthcare, concluded that postpartum depression (PPD) can be detected through screening in the in-patient setting. The electronic medical record can be used to monitor results. Women who screened positive, however, failed to complete outpatient referrals (Rowan et al., 2012). In order for a screening program to be successful, an established in-house referral process should exist for those women with positive screening. When women are required to attend a different site for referral or have formal psychiatric evaluation, they tend not to complete the recommended follow-up. A gap in the literature exists for studies that assess improvement of depressive symptoms at 6-month and 12-month intervals (Yawn et al., 2012).

Healthcare providers specializing in obstetrics and gynecology are strongly encouraged to have a system in place to identify and manage women who are at risk or suffering from perinatal mood disorders. A randomized controlled trial to evaluate an evidence-based collaborative depression care intervention adapted to obstetrics and gynecology clinics compared with usual care concluded that a collaborative depression care adapted to women's health settings improved depressive and functional outcomes and the quality of depression assessment and management (Melville et al., 2014). Women should not routinely be screened for depression if there are no established

referral programs for those who screen positive. This can be harmful to the patient and a liability risk to the institution and healthcare providers (Myers et al., 2013). The lack of adequate social support can increase the incidence of maternal depression and anxiety. Midwives, nurses, and all healthcare providers in obstetrics should be trained to assess for availability of social support for pregnant and postpartum patients, especially first-time mothers, as part of maternal depression screening (Leahy-Warren, McCarthy, & Corcoran).

### **Summary**

The common theme noted from all the literature reviewed is that women who experience stressors such as an illness during pregnancy or pregnancy-related complications have a high incidence of developing perinatal depression or anxiety. These women are also at high risk of preterm labor and premature delivery. The infants born to these women are also at high risk of birth complications such as prematurity, neonatal intensive care admission, poor cognitive development, and risk of neglect or even physical harm. Based on the information obtained from this literature review, it is clear that screening pregnant women admitted to the hospital has the potential to improve patient safety and quality of care by ensuring that those suffering from depression or those who are at risk for depression are identified early and provided with resources to prevent possible complications.

## Chapter 3

### Methods

According to the American Psychological Association (APA, 2015), perinatal depression is a serious mental health problem characterized by a prolonged period of emotional disturbance, occurring at a time of major life change and increased responsibilities in the care of a newborn. Perinatal depression can have significant consequences for both the new mother and her family. The WHO recommends the integration of maternal mental health screening and management into general healthcare, including women's health, maternal and child healthcare, reproductive health, and other relevant services (WHO, 2015). The purpose of this project was to establish a perinatal depression screening program in a community-based hospital.

Nurses and other members of the medical team who manage the care of antepartum patients were provided with education on perinatal depression identification, prevention, and management. A PowerPoint presentation was used as the educational tool. A posttest was then administered to ensure understanding of the educational material. The Edinburgh Depression Scale (EDS) was the screening tool used in the perinatal depression protocol (see Appendix C). The EDS was chosen based on the ease of application, years of proven reliability of detecting depression in pregnant and postpartum women, availability of translation in many languages, and lack of cost involved in incorporating it into patient assessment. The screening protocol includes guidelines for first-line management of women who screen positive for depression risk, which includes consultation by the hospital social work services and is based on risk

factors and severity of symptoms, referral for inpatient psychological evaluation, or community referrals.

### **Method**

Perinatal depression is a serious and significant problem in healthcare. It has the potential to cause adverse maternal and child outcomes if it is not identified and treated. The WHO, ACOG, AWHONN, APA, and CDC hold the position that healthcare providers and institutions that manage the care of newborns and pregnant and postpartum women should have protocols in place for screening for mental health. They also recommend staff education on identification and management of potential at-risk patients and the availability of adequate outpatient referrals for patients who screen positive for depression or are found at risk of depression. The purpose of this project was to develop a perinatal depression risk screening protocol for pregnant women admitted inpatient to a community-based hospital due to medical complications.

### **Project Design**

This project is a performance improvement project. A screening protocol was created based on guidelines from the World Health Organization.

### **Setting**

This study was based in a community hospital in Miami because it has an existing maternal and newborn unit that manages the care of pregnant women experiencing medical complications. These women are sometimes hospitalized for weeks or even months, which puts them at increased risk for depression and anxiety. Gourounti, Karapanou, Karpathiotaki, and Vaslamatzis (2015) conducted a study in two public hospitals in Greece, consisting of 133 pregnant women with a gestational age from 9 to

37 weeks, who were admitted to the hospital for medical complications. The aim of the study was to investigate the prevalence of anxiety and depression in these high-risk pregnant women. Anxiety was measured with State-Trait Anxiety Inventory (STAI), and depression was measured with the Edinburgh Postnatal Depression Scale (EPDS). The means for STAI state and trait scores were 49.3 and 45.1, and the mean score for the EPDS was 12.5, which is significant for depression and anxiety. Nine percent of the participants expressed thoughts of harming self, and almost 50% of the participants had depressive symptoms with EPDS score over 11. The majority of the participants had a high anxiety level (Gourounti et al., 2015). Based on the results of this study, it is very crucial to screen pregnant women admitted to the hospital due to medical complications for possible mental health problems. The EPDS will be used as the screening tool for the perinatal depression screening protocol, due to the ease of application, availability of translations in several languages, proven reliability in assessing for perinatal depression, and no cost involved in incorporating it into the patient care process.

### **Inclusion Criteria**

This project included all nursing staff who work in the labor and delivery department at the community hospital. This group was selected because all nurses who work in the labor and delivery department at this community hospital also manage the care of antepartum patients, who are women admitted to the hospital due to medical complications.

### **Exclusion Criteria**

Exclusion criteria for the project included nursing staff who were not involved in the care of antepartum patients.

### **Ethical Considerations**

Permission was obtained from the hospital Institutional Review Board (IRB) and Nova Southeastern University IRB to ensure that all potential risks of human subject involvement are addressed and all institutional requirements are met. Permission from the hospital administrators was obtained for initiating a performance improvement project. The responses to the study were kept confidential. Data were analyzed as aggregate or group data. Names were not used in the reporting of any information. Records were only identified by the number assigned during the testing period. Any information linking participants to the study was destroyed once data collection was completed. Any reports written based on this study was reported as group results. These measures protect anonymity.

### **Project Phases/Objectives**

#### **Objective 1**

This objective is to generate buy-in and support from the hospital administration, management, physicians, and the Institutional Review Board for the initiation of a perinatal depression risk screening protocol. This objective also includes conducting a literature review on perinatal depression screening and management.

A meeting was arranged with the hospital leadership and administrative team to present the proposal for the capstone project. Data were presented to support the significance and benefit of initiating a perinatal depression screening program for patients in the healthcare institution, in order to gain buy-in and support for the project. The IRB websites for the hospital and Nova Southeastern University were both accessed and reviewed to study the requirements and processes for conducting a research project. An

Internet search was also conducted to identify possible screening tools that were recommended based on credible research in assessing pregnant women for depression risk. A literature review was conducted to identify evidence-based studies on screening pregnant women for depression risk from 2010 to date. The literature search included the institutional library database, CINAHL, MEDLINE, PubMed, and the National Guideline Clearinghouse databases. The key words used were depression in pregnancy, maternal depression, screening for depression in pregnancy, and hospital-based maternal depression programs.

### **Objective 2**

The goal of objective 2 was to develop a perinatal depression screening protocol. It also included meeting with the unit nurse educator, quality and safety nurse, unit nurse manager, and risk management, who were all responsible for preparing protocols for the unit. The protocol was developed using the hospital-approved protocol guidelines as a framework to ensure adherence to the institutional standards. The protocol was then presented at the various institutional organizations approval committees for approval. These committees included the hospital mother-baby collaborative team, the labor and delivery collaborative team, and the obstetrical departmental committee. .

### **Objective 3**

The goal of objective 3 was to provide education to the staff nurses in the labor and delivery unit on the risk factors, identification, management, treatment, and prevention of perinatal depression. They also received education on the perinatal depression screening protocol, administration, and scoring of the screening tool and first-line management of the patients who screen positive for risk of depression. The

education tool used was a PowerPoint presentation, which was administered during scheduled staff meetings in order to capture both day and night shift nurses. Nurses who did not attend the meetings received an email of the PowerPoint presentation. The pretest was also sent as an attachment to assess knowledge. The education was provided with assistance from the unit nurse educator.

#### **Objective 4**

Objective 4 was aimed at assessing for improved knowledge and retention of new information. A posttest was administered to the nurses on the labor and delivery unit to assess improvement of their knowledge on maternal mood disorder and the process of the perinatal depression screening protocol.

#### **Timeline**

Objectives 1 and 2 involve generating buy-in and support from the hospital administration, management, physicians, and the Institutional Review Board for the initiation of a perinatal depression risk screening protocol. This objective also includes the literature review on perinatal depression screening and management and the development of the perinatal depression screening protocol and took about 16 weeks from summer 2015 to fall 2015. Objectives 3 and 4 involved educating the staff nurses in the labor and delivery unit on the risk factors, identification, management, treatment, and prevention of perinatal depression, the perinatal depression screening protocol, and assessment of retained knowledge. These objectives took approximately 12 weeks from winter 2015 to summer 2016.

### Project Budget/Resources

Table 1

#### *Project Budget*

Category	Description of Item	Cost
Printing material	Printing paper and ink	\$100
Nursing education	Time and staffing hours required for education on project topic and process of protocol	Staff education will take place during regularly scheduled staff meetings, so no additional cost is included.
Editor	The services of an editor will be required for assistance in ensuring that the final project paper is free of errors and formatted appropriately to institutional specification.	\$350
Total cost	Total cost of DNP project	\$450

The total cost related to this project included printing materials, fuel for travel back and forth from the hospital, and the hiring of both a statistician for data analysis support and an editor to ensure appropriate writing guidelines are adhered to. The staff education was conducted during regularly scheduled staff meetings, and by email and PowerPoint presentation, so no additional costs were involved in education. This makes the total cost for this project \$950.

### **Outcome Measures**

The outcome of this project was measured by evaluating the successful completion of the initial objectives.

**Objective 1:** Generate buy-in for project and conduct a comprehensive literature review.

Success of this objective was measured by gaining support and permission from the hospital leadership and administrative team to develop a perinatal depression screening protocol, educating the perinatal nurses on perinatal depression and the screening protocol. Accomplishment of a comprehensive literature review was measured by the quality of evidence-based information obtained to support the project.

**Objective 2:** Develop a perinatal depression screening protocol.

Accomplishment of this objective was measured by forming an interdisciplinary team, and developing a perinatal depression screening protocol based on input from all the members of the team.

**Objective 3:** Educate the staff.

This objective was measured by completing education on perinatal depression and the screening protocol, for the registered nurses who manage the inpatient care of pregnant women admitted to the hospital for medical complication.

**Objective 4:** Assess improved knowledge and retention of new information.

This objective was measured by the successful administration of the pre and posttest, with an assessment of improved knowledge and retention of new information. This will be measured by noted improvement on the scores of the posttest compared to the scores on the pretest.

### **Summary**

The focus of this evidence-based performance improvement project was to develop a perinatal depression screening protocol in a community-based hospital in Miami. The main goal was to educate the registered nurses who manage the care of pregnant women admitted to the hospital with medical complications, to be able to assess for possible perinatal depression, and to provide first-line management based on information obtained from the screening protocol.

### **Results and Discussions**

Women of childbearing age are at an increased risk of depression and anxiety. Women who experience medical complications during pregnancy are at an increased risk of suffering from depression and anxiety. Depression during pregnancy can have adverse effects on the woman, her fetus, and her family. According to the WHO, when offered simple training, nurses, physicians, and other healthcare providers who manage the care of pregnant women admitted to the hospital for medical complications are capable of early identification of depression and first-line management.

## Chapter 4

### Results

This evidence-based performance improvement project was accomplished by first obtaining a letter of approval from the Director of the Family Birth Place at the community based hospital in Miami. An expedited Institutional Review Board approval was obtained from the hospital, and Nova Southeastern University after it was determined that the project involved staff education and no direct patient involvement. The project was completed in three phases in order to meet all four objectives. These phases included planning, implementation, data collection, and analysis of data.

**Objective 1:** Generate buy in for project and conduct a comprehensive literature review.

This objective was met by first gathering evidence-based literature to support my argument for the significance in educating the staff on perinatal depression and establishing a perinatal depression screening protocol. A meeting was held with the director of the Family Birth Place to gain support for the project. Then, the Chief of Obstetrics was contacted to discuss the proposed project. Support and buy-in was obtained from both the director and chief of obstetrics. A literature review was conducted using CINAHL, MEDLINE, nursing and medical databases, and professional and governmental agencies. Articles and research studies dating from 2010 to 2015 were included in the review. The search focused on research and articles on the impact, management, treatment, and evidence-based screening recommendations for perinatal depression. The key words used in the literature search included perinatal depression

screening, impact of maternal mood disorders, and treatment and management of postpartum depression. A meeting was then held with the rest of the leadership team and administrators of the labor and delivery department. A PowerPoint presentation was presented with information on the significance of perinatal depression and the screening protocol. Support was obtained from all members of the team.

**Objective 2:** Develop a perinatal depression screening protocol.

This objective was accomplished by first creating a Perinatal Depression Screening Taskforce (PDST), which included the director of the Family Birth Place, chief of obstetrics, labor and delivery leadership team representative, social work representative, hospital psychologist, safety and quality nurse, the nurse educator, and RN staff representative. The PDST had a total of three formal meetings. Each team member contributed information for the screening protocol based on their areas of expertise. A perinatal depression screening protocol was developed based on evidence-based information and input from the PDST members. After the protocol was developed, it was presented to the hospital approval committees and was approved.

**Objective 3:** Educate the staff.

Prior to the education phase, IRB approval was obtained from the hospital and Nova Southeastern University. A flyer for the project was posted at various visible areas in the OB department and also via email. Staff recruitment was obtained via the flyer, email, staff meetings, and personal contact. Staff champions were identified to assist with recruitment and assistance for the project. A pretest was administered to staff participants during staff meetings, during downtime on the unit, and via email. A letter of consent was included with the pretest, and completion of the pretest was determined as

giving consent for participation. A sealed envelope was used to collect the pretest. Seventy nurses completed the pretest. Education was provided in the form of a PowerPoint presentation at previously scheduled staff meetings. This presentation included information on perinatal mood disorders, with an emphasis on perinatal depression assessment and first line management. Information on the perinatal depression screening protocol was also included. An email was sent to those nurses who did not attend the meetings. The nurses were given up to 3 weeks to complete the education. A sealed envelope was also used to obtain the posttests.

**Objective 4:** Assess improved knowledge and retention of new information.

This objective was accomplished by administering a posttest to assess improved knowledge and retention of information. After completion of testing, pretest and posttest scores were analyzed.

### **Findings of the Project**

A paired-samples *t*-test was conducted to compare pretest and posttest results for registered nurses ( $N = 70$ ), after receiving education on perinatal depression to assess for improved knowledge and retention of new information. There was a significant difference in the pretest scores ( $M = 7.07$ ,  $SD = 1.289$ ) and posttest ( $M = 8.89$ ,  $SD = .956$ ) conditions;  $t(69) = -12.345$ ,  $p < .001$ . The results suggest the education provided to the registered nurses improved their knowledge on perinatal depression, with retention of new information learned. The demographic analysis for the participants of the project are as follows: 53% (37) Hispanics, 27% (19) Caucasians 10% (7) African Americans, 6% (4) other, Native American, and one Asian. The average age of the participant was also assessed. Thirty-seven participants were between the ages of 26-40, 25 were between 41-

50 years, four were 25 or less, and four were 56 or above. There was also an assessment of highest educational level achieved, and the total years in nursing. Majority of the nurses had bachelor of science in nursing (BSN ) (46), followed by associate of arts (AA) (13), Master's of Science in Nursing MSN (five), nursing diploma (three), bachelor of arts (BA) (one), Master's in Public Health (MPH) (one), and Juris Doctor (JD) (one). For years of experience in nursing, the majority of nurses, had 6-10 years' experience (17), followed by 11-15 years (16), 16-20 years (13), 21-30 years (nine), 2-5 years (seven), less than 1 year (four), and 30+ years (four).

### **Expected and Unexpected Findings**

Data revealed improved knowledge and retention of information after the staff nurses received education on perinatal mood disorders. The staff nurses also stated that they felt confidence in assessing patients for perinatal mood disorders. They also agreed that nurses are capable of assessing and providing first-line management for perinatal depression. An unexpected finding was the difficulty in reaching all eligible nurses to participate in the education and testing process. The night nurses were the most difficult to reach, and there were also nurses on vacation and medical leave. The staff champions assisted in reaching some of the nurses, but there were still some that could not be reached. Another unexpected finding, was that the implementation of the protocol had to be put on hold due to the initiating of a new Electronic health system (EHR) in the hospital. The protocol is expected to be implemented in February of 2017

### **Strengths and Limitations**

The strengths noted in this project include the enthusiasms and support obtained from the hospital leadership and staff nurses. This project brought awareness to a

significant healthcare issue that affects women, babies, and their families. The goal to educate staff on perinatal depression and to create a perinatal depression protocol was also accomplished. A limitation to this project was that not all the eligible staff nurses participated in the education and testing, so there is still an opportunity to improve the project through reaching out to the rest of the nurses to encourage full participation. Even though the protocol has been approved by the hospital approval committees, it has not yet been implemented, due to the hospital transitioning to a new EHR system, which has put all new projects on hold. However, there is reassurance from the administration and leadership team that the screening protocol will be implemented in February 2017.

### **Implication for Nursing and Healthcare**

This project has the potential to impact nursing practice, healthcare outcomes, healthcare delivery, and healthcare policy by providing increased knowledge on PD and other maternal mood disorders. The screening protocol can provide a structural framework for healthcare providers to screen and provide first-line management for PD. A postpartum depression screening protocol may impact healthcare by satisfying the United Nations' (UNs') millennium developmental goals (MDGs) numbers 3, 4, and 5: to promote gender equality, empower women, reduce child mortality, and to improve maternal health. Healthcare delivery will be impacted through improved quality of care provided by nurses who have adequate knowledge and skills in recognizing the risk factors for PD. The perinatal depression screening protocol will impact healthcare policy by meeting the Joint Commission (TJC) requirement for healthcare institutions to have evidence-based protocols to assist the identification of patients that may be suffering from depression or are at risk of suicide.

### **Further Research Opportunity**

Although there has been a call for universal screening for postpartum depression, there is still a lack of evidence-based guidelines recommending a screening tool, setting for screening, and optimal screening period. Very few studies are available to determine the success rate of those women who were identified as being at risk of depression and given referrals. The WHO, ACOG, AWHONN, APA, and CDC hold the position that healthcare providers and institutions that manage the care of newborns and pregnant and postpartum women should have protocols in place for screening for mental health. They also recommend staff education on identification and management of potential at-risk patients and the availability of adequate outpatient referrals for patients who screen positive for depression or are found at risk of depression.

### **Summary**

According to the literature review, perinatal depression is a very significant problem in maternal and child health care. Depression during pregnancy can have negative impact on the woman such as risk of pregnancy-induced hypertension, lack of adequate prenatal follow-up, and preterm delivery. The newborn may also be at risk for severe intrauterine growth retardation, and preterm delivery. A woman who has untreated depression during pregnancy is also at high risk of developing postpartum depression. The WHO, ACOG, AWHONN, APA, and CDC hold the position that healthcare providers and institutions that manage the care of newborns and pregnant and postpartum women should have protocols in place for screening for mental health problems. They also recommend staff education on identification and management of potential at-risk patients and the availability of adequate outpatient referrals for patients

who screen positive for depression or are found at risk of depression. This project provides the opportunity for healthcare providers to improve the quality and safety of patient care through the assessment and first-line management for perinatal depression.

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## Appendix A

## Letters of Support and Consent

MEMORANDUM

To: **Mari Seidu Seidu**  
**College of Nursing**

From: **Jo Ann Kleier, Ph.D., Ed.D.,**  
**Center Representative, Institutional Review Board**

Date: **July 12, 2016**

Re: **IRB #: 2016-290; Title, "Establishing a perinatal depression screening protocol in a community based hospital."**

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I have reviewed the above-referenced research protocol at the center level. Based on the information provided, I have determined that this study is exempt from further IRB review under **45 CFR 46.101(b) ( Exempt Category 1)**. You may proceed with your study as described to the IRB. As principal investigator, you must adhere to the following requirements:

- 1) **CONSENT:** If recruitment procedures include consent forms, they must be obtained in such a manner that they are clearly understood by the subjects and the process affords subjects the opportunity to ask questions, obtain detailed answers from those directly involved in the research, and have sufficient time to consider their participation after they have been provided this information. The subjects must be given a copy of the signed consent document, and a copy must be placed in a secure file separate from de-identified participant information. Record of informed consent must be retained for a minimum of three years from the conclusion of the study.
- 2) **ADVERSE EVENTS/UNANTICIPATED PROBLEMS:** The principal investigator is required to notify the IRB chair and me (954-262-5369 and Jo Ann Kleier, Ph.D., Ed.D., respectively) of any adverse reactions or unanticipated events that may develop as a result of this study. Reactions or events may include, but are not limited to, injury, depression as a result of participation in the study, life-threatening situation, death, or loss of confidentiality/anonymity of subject. Approval may be withdrawn if the problem is serious.

3) AMENDMENTS: Any changes in the study (e.g., procedures, number or types of subjects, consent forms, investigators, etc.) must be approved by the IRB prior to implementation. Please be advised that changes in a study may require further review depending on the nature of the change. Please contact me with any questions regarding amendments or changes to your study.

The NSU IRB is in compliance with the requirements for the protection of human subjects prescribed in Part 46 of Title 45 of the Code of Federal Regulations (45 CFR 46) revised June 18, 1991.

Cc: **Eglintine Rigaud, Ph.D.**



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Miami, FL 33176-2107  
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Supis-Header

### Non-Human Subjects Research Determination

June 1, 2016

Mari Seidu, ARNP  
OB/Women's Services  
Baptist Hospital  
8900 N. Kendall Drive  
Miami, FL 33176

Title of Project: Initiating a Perinatal Depression Screening Protocol in a Community Hospital

Dear Ms. Seidu,

On 6/1/2016, an IRB Administrator reviewed and approved your above referenced request for determination if planned activity involves human subjects research.

Based on the information submitted for review, the purpose of your project is to complete the requirements of a Doctorate of Nursing Practice program and the project is not a systematic investigation designed to contribute to generalizable knowledge. As such, your project to assess the knowledge of registered nurses in the antepartum unit at Baptist Hospital in the management of depression during pregnancy and to implement education to improve their knowledge qualifies as QI/QA and **does not constitute human subjects research.**

The materials submitted and considered for review of this project included:

1. Request for Determination if Planned Activity Involves Human Subjects Research (revised application received 5/23/2016)
2. Perinatal Depression Pre-test; Perinatal Depression Post-test (1 and 2)
3. Perinatal Depression Screening Protocol

This review and determination is based only on the information provided to the IRB Office and is not valid if the proposed project is not exactly as described, or if additional information (including grants, contracts or other information) has been withheld.

The IRB Office must be notified if the proposed activity changes and becomes research. Research involving human subjects must receive IRB review and approval prior to implementation.

You may contact the IRB Office at 786-527-9280 if you have any questions or require further information.

Sincerely,

Amanda Cortes-Rojas, MPH, CIP, CHRC  
IRB Director

/acr



An ANCC Magnet Hospital:  
Recognized for excellence in nursing.



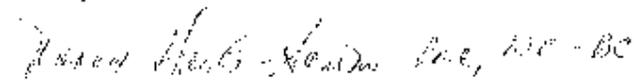
October 12, 2015

To whom it may concern,

As the director of the Family Birth Place at Baptist Hospital in Miami, I give full permission to Mari Seidu DNP student to conduct her capstone project entitled; **initiating an antepartum screening protocol in a community based hospital** from beginning to completion.

You may contact me at 786-596-4780 with any questions or concerns.

Sincerely,

  
Nancy Huertas-Savino, RNC, NE-BC  
Baptist Hospital of Miami  
Director, OB/GYN

## Appendix B

### Permission to Use Edinburgh Depression Scale EDS

Users may reproduce this scale without further permission providing they respect the copyright which remains with the British Journal of psychiatry, quote the names of the authors and include the title and the source of the paper in all reproduced copies (Postpartum.net, 2016).

## Appendix C

### Perinatal Depression Screening Protocol

#### Background

Perinatal Depression (PD) including major and minor depression, occurring during pregnancy or in the first 12 months after delivery is one of the most common medical complications during pregnancy and the postpartum period, affecting approximately one in every seven women (ACOG, 2015). Even though PD has the potential to affect women from all races and socioeconomic backgrounds, women who experience pregnancy and/or birth complications have a significantly higher risk for developing PD than those who experience normal uncomplicated pregnancies and delivery (CDC, 2015). Women who experience pregnancy or birth complications also have a higher incidence of babies requiring neonatal intensive care due to prematurity or infant illness, which further increases their risk for PD and anxiety (Segres, McCabe, Chuffo-Siewert, & O'Hara, 2014). Depression during pregnancy and a history of mood disorders, in addition to problems during delivery, are all identified as strong risk factors for postpartum depression (Vasa et al., 2014).

#### Process

1. Pregnant women admitted as inpatient to Antepartum/Women's Services due to medical complications or pregnancy related complications, will receive the Edinburgh Depression Scale (EDS) during admission.
2. The RN managing the care of the patient and/or the Patient Outcome Facilitator (POF) will administer the EDS and score it. The screening score and interventions initiated will be documented in a clinical note.

3. All patients will be reassessed for depression with the EDS every 2 weeks and as needed during admission. The physician will be notified of any changes in EDS score. A new assessment of positive EDS screening will require initiation of inpatient depression prevention management.
4. Those patients who screen positive for risk of depression (score of 10 or greater), or those who respond to anything other than “never” on question **10**, will receive a Case Management Consultation and the attending OB physician will be notified by the RN and/or POF.
5. Based on the recommendation by Case Management or physician decision, patients may receive psychology and/or psychiatry consultations if indicated. A personalized inpatient depression prevention plan will be developed in collaboration with the patient, her physicians, Care Manager, and nurse, based on her current medical condition, history, personal preference, and psychological needs.
6. Patients, who are identified with risk of depression or any other mood disorders, will receive information on signs and symptoms of depression and coping strategies provided by the care manager.
7. These patients will also receive outpatient mental health referral information from the Care Manager prior to discharge.
8. “Perinatal Depression Education Review” will be a component of Labor & Delivery nursing competencies.

## EDINBURGH DEPRESSION SCALE\*(EDS)

**Instructions: Add the number next to each circle that has been filled in. This is the total.**

**1. I have been able to laugh and see the funny side of things:**

- 0** As much as I always could
- 1** Not quite as much now
- 2** Definitely not so much now
- 3** Not at all

**6. Things have been getting on top of me:**

- 3** Yes, most of the time I haven't been able to cope at all
- 2** Yes, sometimes I haven't been coping as well as usual
- 1** No, most of the time I have coped quite well
- 0** No, I have been coping as well as ever

**2. I have looked forward with enjoyment to things:**

- 0** As much as I ever did
- 1** Rather less than I used to
- 2** Definitely less than I used to
- 3** Hardly at all

**7. I have been so unhappy that I have had difficulty sleeping:**

- 3** Yes, most of the time
- 2** Yes, sometimes
- 1** Not very often
- 0** No, not at all

**3. I have blamed myself unnecessarily when things went wrong:**

- 3** Yes, most of the time
- 2** Yes, some of the time
- 1** Not very often
- 0** No, never

**8. I have felt sad or miserable:**

- 3** Yes, most of the time
- 2** Yes, quite often
- 1** Not very often
- 0** No, not at all

**4. I have been anxious or worried for no good reason:**

- 0** No, not at all
- 1** Hardly ever
- 2** Yes, sometimes
- 3** Yes, very often

**9. I have been so unhappy that I have been crying:**

- 3** Yes, most of the time
- 2** Yes, quite often
- 1** Only occasionally
- 0** No, never

**5. I have felt scared or panicky for no very good reason:**

- 3 Yes, quite a lot
- 2 Yes, sometimes
- 1 No, not much
- 0 No, not at all

**10. The thought of harming myself has occurred to me:**

- 3 Yes, quite often
- 2 Sometimes
- 1 Hardly ever
- 0 Never

**EDINBURGH DEPRESSION SCALE\***

**Also known as the Edinburgh Postnatal Depression Scale (EPDS)\***

**Range of EDS Scores**

This information is offered as a guide only.

Remember that the EDS scores apply to the *last seven days*. Use the guide below in relation to the most recent EDS.

**Scores**

**0-9** When scores are in this range this may indicate the presence of some symptoms of distress that may be short-lived and are not likely to interfere with day to day ability to function at home or at work. However if these symptoms have persisted more than a week or two further enquiry is warranted as to the cause

**10-12** Scores within this range indicate presence of symptoms of distress that may be discomforting. We suggest that you repeat the EDS in 1- 2 weeks time for women scoring in this range and if the scores increase to above 12 assess further and consider referral to a mental health specialist or general practitioner for review.

**13 +** Scores above 12 require further evaluation and possible referral to perinatal mental health.

\* Murray & Cox 1990 \* Cox, Holden & Sagovsky 1987

## Appendix D

### Perinatal Depression Prevention Plan

1. Educational materials on perinatal mood disorders provided to patient and family.
2. In-house psychotherapy (requires medical provider order)
3. Visits from pastoral care services (based on patient's preferred religious practice)
4. Nutrition consult
5. Ground privilege (for sun therapy, requires medical provider order)
6. Music therapy
7. Personal care (hair and nails)
8. Coloring book
9. DVD
10. Journaling
11. Peer support and inpatient visit (requires mutual agreement, arranged by social work)
12. Assistance in identifying support system. (list at least 3 family members or friends to visit and talk to)
13. Assistance in planning for child care and house work assistance. (Consider friends and family to sign up to provide a gift of time during baby shower).

These measures will be accomplished through collaboration with the patient, her family, medical provider, her nurse and social work services.

Social work will also assist patient to navigate through her insurance system to assess and secure outpatient mental health provider and support group upon discharge.