A PILOT IMPLEMENTATION OF POSTPARTUM DEPRESSION SCREENING GUIDELINES IN THE PEDIATRIC PRIMARY CARE SETTING

by

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A scholarly project submitted in partial fulfillment of the requirements for the degree of Doctor of Nursing Practice in Family and Individual Health

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Bozeman, Montana

April 2019
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DEDICATION

I dedicate this project to my husband and my two daughters. Their love and support are what kept me moving forward throughout my pursuit of a Doctor of Nursing Practice degree. I would also like to express my gratitude to my mentor, committee chair, and friend, Susan Luparell. Working with her has been an honor and her guidance and support have been invaluable throughout the course of this project. Thank you to the members of my committee and the clinicians who participated in my project. Without them none of this would have come to fruition.
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ABSTRACT

**Statement of the problem.** Postpartum depression (PPD) is a common postpartum complication. This condition can have a negative effect on family wellness and can impact the development of the infant. Unfortunately, it is estimated that only half of PPD cases are ever recognized and diagnosed by providers. Although evidence supports incorporating PPD screening guidelines into well-child visits, the pediatric providers at the project site do not routinely include this screening process in their practice. As a result, opportunities to identify mothers with PPD and provide them with education and resources were being missed.

**Methods.** The project took place at an outpatient pediatric clinic in Montana. Four pediatric providers incorporated PPD screening guidelines utilizing the Edinburgh Postnatal Depression Screening tool into routine well-child checks for children ages 1 to 12 months. Using a data collection tool, providers recording data related to the screening process including the age of the child, whether or not the mother was screened, the EPDS score, and how the situation was addressed if the results of the EPDS were positive. The perspectives and beliefs of the providers were captured using a pre-implementation and post-implementation survey as well as a verbal debriefing at the end of the project.

**Results.** Data were collected on 88 encounters where screening was indicated. Fifty-three of the 88 mothers were screened. Eight screenings were positive which suggested possible depression symptoms. Although providers were in favor of this practice change overall both before and after implementation of the PPD guidelines, some significant barriers and challenges emerged during the process.

**Discussion.** Barriers to incorporating PPD screening guidelines into well-child visits include time constraints, cooperation and willingness of the mother to participate, remembering to administer the screening tool, and repetition of unnecessary screening in mothers who have already been diagnosed with depression. Changes could be made to the design of this project to reduce limitations and improve the implementation process. Overall, this project found that PPD screening at well-child visits has the potential to be feasible and valuable to the practice of this organization.
CHAPTER ONE
INTRODUCTION

Background/Significance

Lin Yutang, a Chinese writer and philosopher stated, “Of all the rights of women, the greatest is to be a mother.” Giving birth to a baby is expected to be a time of overwhelming joy in a woman’s life. People speak of a profound love that washes over a mother the moment she lays eyes on her infant. Parents often expect the birth of their child to be followed by a season of bonding and happiness. Unfortunately, for 10-20% of perinatal women, the joy of a new baby is dulled by the exhaustion and despair of postpartum depression (PPD) (Sriraman, 2010; Bobo & Yawn, 2014; Mayo Clinic, 2014; Waldrop, Ledford, Perry, & Beeber, 2018). Maternal depression is the most common complication of childbirth (Sit & Wisner, 2009; Del Rosario, Chang, & Lee, 2013; Mgonja & Schoening, 2017). Like many other mental health issues, PPD often goes undetected and untreated (Morgan & Yount, 2012; Patel et al., 2012). An estimated 50% of PPD cases go undiagnosed (Bobo & Yawn, 2012; Sriraman, 2010). Such a high number of unrecognized cases of maternal depression is a serious concern as research shows depression has a significant impact not only on maternal quality of life, but also on maternal-infant bonding and the safety and development of the child (Chaudron, Szilagyi, Kitzman, Wadkins, & Conwell, 2004; Del Rosario, Chang, & Lee, 2013; Sit & Wisner, 2009). New research has brought attention to the damaging effect maternal depression can have on new fathers as well (Harrison & White, 2017). A meta-synthesis by Paulson
& Bazemore (2010), found approximately 10% of the fathers in the studies reviewed suffered from prenatal or postpartum depression. There was a significant positive correlation between maternal depression and depression in fathers (Paulson & Bazemore, 2010). With an estimated 400,000 infants born each year to mothers who are depressed, PPD continues to be a significant public health issue (Evans, 2015). Maternal depression can be effectively managed, but the signs and symptoms must first be recognized by medical professionals in order for treatment to be initiated.

PPD screening is often incorporated into a routine follow-up visit with an obstetrician-gynecologist (OBGYN) 4-6 weeks after childbirth. However, in 2009, national survey results showed that only 37% of OBGYN providers use a validated tool for assessing depression in their patients (Farr, Denk, Dahms, & Dietz, 2014). Researchers have shown without the use of validated instruments, providers are unable to accurately diagnose depression (Feinberg et al., 2006). A comparison was done between routine clinical evaluation and evaluation including the use of a validated screening tool known as the Edinburgh Postnatal Depression Scale for detecting depression in postpartum women. Researchers found a significantly higher detection rate of PPD when the structured tool was used as opposed to patient interviews alone (Evins, Theofrastous, & Galvin 2000). Relying on clinical interview or self-report does not always yield an accurate picture of a woman’s health status. For example, 95% of postpartum women state they are healthy but one third of them report concerns about their mental health (Walker, Eun-Ok, & Tyler, 2013).
Once the routine postpartum follow-up exam has taken place, the relationship between the OBGYN and the patient usually ends. Many women do not establish with a primary care provider during the postpartum period (Feinberg et al., 2006). Although studies have shown that postpartum depression is most common in the first three months after a woman has given birth, some researchers have indicated that individuals can suffer clinically significant symptoms of depression for months and even years after giving birth. If this is the case, a single screening 4-6 weeks postpartum may not be enough to identify some women who are suffering from depression (Chaudron et al., 2006). An alternative screening opportunity exists at routine well-child visits. Children are generally seen for well-visits approximately seven times during their first year of life. Mothers often accompany their infants to these visits which gives pediatric providers the opportunity to screen for depression on multiple occasions during the time period mothers are most at risk for developing PPD (Chaudron, 2004; Emerson, 2018). It has been well-established that the health status of children is heavily impacted by maternal depression. The American Academy of Pediatrics (AAP) recommends pediatric providers conduct PPD screening at well-child visits for at least the first six months after birth (McKean, Caughey, McKean, Cabana, & Flaherman, 2018; Earls, 2010). Screening mothers for depression at well-child visits has the potential to increase recognition of PPD and improve outcomes for both mothers and infants (Liberto, 2018).
Problem Summary

The clinical site for this project is part of an organization that provides care to approximately 13,000 children around Montana each year. The pediatric department webpage states “family focused care” is a priority of this organization (Pediatrics, n.d.). According to the community health improvement plan of the local county surrounding the clinical site, 15.3% of the local population lives below the poverty level. The high percentage of residents living in poverty is significant since the prevalence of PPD increases to approximately 25% when mothers are from a low socioeconomic background (Chaudron, Szilagyi, Campbell, Mounts, & McInerny, 2007). Mental health, specifically depression and anxiety, was among the top five health concerns identified by the respondents of the 2016 Community Health Needs Assessment for the county (Cascade County, 2017). With PPD being a common birth complication in general, and issues like poverty and inadequate access to mental health care posing additional risk factors for depression, the women of this community are at a significant risk for PPD. Although the outpatient pediatric providers at this organization are well aware of maternal depression and its effect on pediatric patients, screening for PPD is not routinely performed at every well-child visit. Opportunities to identify maternal depression are likely being missed at this organization.

Purpose Statement

The purpose of this project was to examine the feasibility of initiating postpartum depression screening in the first year of routine well-child visits at the outpatient pediatric
department within the organization. The project was modeled after a Doctor of Nursing Practice scholarly project completed by Andrea Sessoms at East Carolina University (Sessoms, 2014). The intent of the Sessoms study was to identify barriers and facilitators of incorporating PPD screening into routine well-child as well as explore perceptions and beliefs of the participating pediatric nurses and providers. The number of women who screened positive for PPD was also noted. The American Academy of Pediatrics Task Force on Family endorses “family pediatrics.” The concept of family pediatrics includes screening, assessing, and referring parents as indicated for concerns that could have a negative impact on the well-being of the child (Feinberg et al., 2006). The overall goal of this DNP project was to help further develop the concept of “family focused care” that already exists within this organization and help to establish standards of care that will lead to better outcome of the family as a whole. Addressing postpartum depression by increasing routine screening is an important step in achieving this goal.

**Theoretical Underpinnings**

Theory plays an important role in nursing research and practice by helping an individual identify their purpose, values, and beliefs. A chosen theory then guides the incorporation of those views back into the work of project or research. Nursing theory gives nurses a sense of identity that sets them apart from other disciplines and highlights their contribution to healthcare (Colley, 2003). The theory used for this project was be Ramona Mercer’s Maternal Role Attainment Theory.
Mercer’s Maternal Role Attainment Theory is a mid-range theory designed to provide a framework for clinicians to use while caring for postpartum mothers and infants. The theory incorporates processes related to interactions and development that occur during the first year after childbirth (“Maternal”, 2016; Cabrera, 2018). Mercer’s theory of Maternal Role Attainment is based on the belief that becoming a mother involves much more than simply giving birth. Mercer believed there are many factors that influence the process of a woman feeling confident in her role as a mother and some of these factors can impact the bond between her and her baby (Husmillo, 2013). Bonding is a component of Mercer’s theory considered to be essential for a woman to develop her identity as a mother. Applying the Maternal Role Attainment Theory is meant to promote healthy bonding behaviors and aims to improve the health of mothers, infants, and families (Cabrera, 2018).

There are four global concepts that comprise the Maternal Role Attainment Theory. The concepts include nursing, person, health, and environment. “Nursing” consists of providing mothers with care and education. “Person” is the process of a woman developing confidence and security in her new role, establishing her identity as a mother. “Health” includes an assessment of the entire family and how stress experienced by each member of the family can contribute to stress experienced by other family members. Finally, “environment” is consideration of how surroundings may impact a mother, infant, and family. The Maternal Role Attainment Theory includes many other concepts related to characteristics of the mother and infant, their bonding relationship, and the child’s health outcomes (Cabrera, 2018). Some examples of these concepts
include maternal role attainment, health status, anxiety, depression, role strain, self-esteem, attachment, infant temperament, infant health status, family functioning, stress, social support, the relationship between the mother and father, and cognitive and behavioral development of the child (Cabrera, 2018; Noseff, 2014).

Maternal role attainment occurs during a process consisting of four stages of role acquisition. The first stage is the anticipatory stage. The anticipatory stage occurs while a woman is still pregnant. During this time, she is imagining herself as a mother and forming ideas of what it will be like when her newborn arrives. Next is the formal stage. The formal stage begins when the infant is born and the woman has truly become a mother, learning to take care of her new baby. At this point, a mother is caring for her child based on what she is told to do or what she has seen others do. The informal stage is next, as a woman transitions to parenting based on her own reasoning. She engages in her new role by drawing from her own experiences, values, and beliefs. Finally, the personal stage occurs when a woman is confident in her identity as a mother and has attained her maternal role (Cabrera, 2018; Noseff, 2014).

Researchers have shown that depression can inhibit successful maternal role attainment (Noseff, 2014). Likewise, postpartum depression may prevent mothers from successfully completing each stage of maternal role attainment (Noseff, 2014). Researchers have indicated postpartum depression and a decreased maternal-infant bond often go hand in hand (Husmillo, 2013). A depressed mother cannot bond with her infant which prevents her from reaching role attainment as a mother and puts her, her infant, and the family at risk for unfavorable outcomes. Some women move through the stages
of acquisition quickly, reaching maternal role attainment within a few weeks, while others may take a full year to reach the final stage of the process (Noseff, 2014). When determining how often providers should screen for postpartum depression, it is worth considering that although most women show signs of depression within the first few months, others may not experience these symptoms until later on. Women showing signs of depression at varying lengths of time after delivery makes sense if one considers that women are moving through stages of acquisition at different times and so may experience problems at different times as well. Mercer considers the postpartum period to be a full 12 months which aligns with research suggesting women can develop PPD up to a year after childbirth (Noseff, 2014).
Postpartum Depression

The American Psychiatric Association considers all postpartum psychiatric disorders to be a single condition consisting of three subclasses. The subclasses include adjustment reaction with depressed mood (baby blues), postpartum mood episodes with psychotic features (postpartum psychosis), and postpartum major mood episodes (postpartum depression) (Rai, Pathak, & Sharma, 2015; McKelvey & Espelin, 2018).

Baby blues is experienced by an estimated 50-85% of postpartum mothers and generally begins within a few days after childbirth and resolves within two weeks (McKelvey & Espelin, 2018). Mothers feel anxious, irritable, tearful, and emotional but are capable of caring for themselves and their infants (“Beyond”, 2011; Rai, Pathak, & Sharma, 2015).

Postpartum psychosis is very rare. One to two mothers in every one thousand suffer from this psychiatric emergency (McKelvey & Espelin, 2018). Women with postpartum psychosis experience confusion, hallucinations, delusions, insomnia, agitation, paranoia, rambling speech and are at a high risk for suicide and infanticide (McKelvey & Espelin, 2018; “Beyond”, 2011; Rai, Pathak, & Sharma, 2015).

Postpartum depression exists somewhere between baby blues and postpartum psychosis. PPD is more severe than baby blues but the disorder itself is less common. PPD is significantly less severe than postpartum psychosis but it occurs much more frequently (Morgan & Yount, 2012). The symptoms of PPD are no different than those of
major depressive disorder. The American Psychiatric Association's Diagnostic and Statistical Manual, Fifth Edition (DSM-5) does not provide criteria specific for postpartum depression but instead includes a specifier “with peripartum onset” that can be added to the diagnostic criteria for major depression. To be considered peripartum onset, the criteria must be met during pregnancy or within the first four weeks postpartum (Bobo & Yawn, 2014). This is somewhat debatable since many researchers define PPD as depression occurring up to 12 months postpartum (Solomon, Stewart, & Vigod, 2016; Bobo & Yawn, 2014). Patel et al. (2012) p. 535, describes postpartum depression as “…characterized by sadness or loss of interest, including poor concentration, appetite disturbance, sleep deficit beyond that required for care of the baby, lack of or excessive concern for the baby, constant fatigue, and anxiety or irritability.” Women are at higher risk for developing PPD if they have experienced PPD in the past, have existing psychiatric disorders, are low socioeconomic status, are less than the age of 25, have inadequate support, experienced a complicated pregnancy or childbirth, or are experiencing any stressful life event in addition to having recently given birth (Patel et al., 2012; Rai, Pathak, & Sharma, 2015; McKelvey & Espelin, 2018). The specific etiology of postpartum psychiatric problems is not fully understood. The disorders are likely caused by a multitude of factors and are almost certainly related to the hormone fluctuations that occur during pregnancy and after giving birth (Patel et al., 2012).
How Mothers Are Impacted

Maternal depression can have a major impact on a mother’s quality of life. Women with PPD often struggle to perform normal activities and become exhausted from significant disturbances to their sleep routine (Patel et al., 2012). Depressed mothers find it difficult to bond with their infants and often feel strain and tension when it comes to their relationships with their significant others (Banti et al., 2011). Many women with PPD feel guilty or ashamed for feeling sad and emotional instead of joyful. They may question their ability to care for their newborn or become obsessed with the newborn’s well-being (Morgan & Yount, 2012; “Beyond”, 2011; Rai, Pathak, & Sharma, 2015). Sadat et al. (2014) compared quality of life for women with PPD and without PPD. The study indicated the woman with PPD have a significantly lower quality of life across several domains when compared to women without PPD. Women are more likely to experience recurrent depression later on in life after suffering from PPD (Evins, Theofrastous, & Galvin, 2000). One of the most concerning consequences of reduced quality of life is the increased risk of suicide. Suicide is a leading cause of mortality in postpartum women causing up to 20% of maternal deaths (Degner, 2017; Bobo & Yawn, 2012; Evins, Theofrastous, & Galvin, 2000).

How Infants Are Impacted

Another unfortunate effect of PPD is the potential impact on infant safety and development. Mothers with depression are less prone to bond successfully with their newborn. They struggle more often with breastfeeding and have a tendency to stop
breastfeeding earlier than mothers who are not depressed. They may be less responsive to the needs of their infant and are less likely to provide the interaction required for a child’s foundational development of value and self-esteem (Sriraman, 2010; O’Hara & McCabe, 2013). Conners-Burrow et al. (2014) found that even minor depressive symptoms can have a negative effect on the well-being of a child. Maternal depression is associated with poor parenting practices and failure to adhere to the recommended safety guidelines (Balbierz, Bodnar-Deren, Wang & Howell, 2015; O’Hara & McCabe, 2013). Depressed mothers tend to be disengaged and withdrawn. They are less likely to provide their children with materials to stimulate cognitive and language development such as books and toys that support learning. They also participate in fewer parent-child interactions that aid in cognitive, language, and social development (Sriraman, 2010; Conners-Burrow et al., 2014). Children whose mothers suffer from depression have been shown to have more behavior problems, poor social interactions, less language development, and lower scores on early academic performance and I.Q. measures (Conners-Burrow et al., 2014; O’Hara & McCabe, 2013). Balbierz, Bodnar-Deren, Wang, & Howell (2015) found that mothers who tested positive for PPD were significantly less likely to place their infant on its back while sleeping, use a car seat appropriately, or have a functional smoke alarm in the house. The effects PPD has on infant and child development have the potential to be substantial and long-standing (O’Hara & McCabe, 2013).
How Fathers are Impacted

Although it has been recognized fathers are at risk for developing depression during the time their partner is pregnant and during the postpartum period, there is less research exploring paternal postpartum depression in comparison to the amount of research focused on maternal postpartum depression (Paulson & Bazemore, 2010). The existing research has established one of the largest risk factors associated with paternal PPD is maternal PPD (Harrison & White, 2017; Kim & Swain, 2007; Goodman, 2008). Goodman (2008) describes the results of qualitative studies reporting men whose partners suffer from PPD often experience feelings of isolation, stigmatization, fear, confusion, concern, frustration, anger, and hopelessness. They feel overwhelmed, unsure about the future, and dissatisfied with the marital relationship (Goodman, 2008). Studies suggest the impact maternal depression has on the relationship between a father and infant depends on the mental health status of the father. Fathers who are not depressed, often play a compensatory role that aims to counteract the detachment of a depressed mother. They may become more engaged and involved with the infant to make up for the lack of attachment between the mother and infant (Kokkinaki, 2015). Other research suggests fathers who are experiencing depression at the same time their partner is depressed will have a significantly decreased bond and attachment with their infant (Goodman, 2008).

Screening for Postpartum Depression

Effective treatment options for managing PPD exist, however, these treatments are not useful for women whose PPD is not recognized by a provider. Woman suffering
from PPD often do not realize their symptoms are indicative of a psychiatric disorder. Chaudron et al. (2004) p. 551 states, “Depressed women often do not recognize their symptoms as depression. It is particularly difficult for women with new infants to disentangle symptoms of depression, such as fatigue, early morning awakening, or weight loss, from the normal adaptation to life with a new infant.” Even if women do suspect they are experiencing depression, they may feel embarrassed or ashamed. Either way, they are unlikely to actively seek treatment (Morgan & Yount, 2012; Liberto, 2018).

The American College of Obstetricians and Gynecologists (ACOG) recommend screening for PPD using a standardized validated tool at least once during the perinatal timeframe (“Screening” 2015). In 2016 the U.S. Preventative Services Task Force released a grade B recommendation for universal screening for depression in the general adult population including pregnant and postpartum women (“Depression” 2016). The recommendation was released after an evidence report and systematic review examining the benefits and harms of depression screening in pregnant and postpartum women found routine screening practices may decrease symptoms of depression and reduce the prevalence of depression in this patient population due to the increased likelihood of diagnosis and treatment. Minimal risk of patient harm related to depression screening was detected (O’Connor et al., 2016). Although ACOG recommends screening for PPD only one time during the perinatal period, researchers have indicated PPD can occur any time within a year postpartum. Evidence suggests a single PPD screening at 4-6 weeks after childbirth may not be sufficient. Yawn, Bertram, Kurland, & Wollan (2015) found repeating PPD screening at six months and again at 12 months postpartum resulted in
detection of PPD symptoms that developed after the four to six week postpartum timeframe. Repeated PPD screening may increase detection by catching symptoms of depression that had not yet appeared during the early postpartum period.

Usually, routine patient encounters with OBGYN providers are limited during the postpartum timeframe. The National Committee for Quality Assurance reported only 56% of mothers on Medicaid visited a health care provider at all during the postpartum period (Feinberg et al., 2006). Women who do follow-up postpartum are usually seen only once unless complications arise that indicate additional follow-up. Most often, OBGYN providers do not encounter postpartum mothers on more than one occasion (Emerson, 2018). On the contrary, pediatric providers have frequent contact with mothers and their infants during the first year of the infant’s life (Olin et al., 2016). The American Academy of Pediatrics Recommendations for Preventive Pediatric Health care suggest a well-child visit at two to 7 days; by 1 month of age; and at 2, 4, 6, 9, and 12 months (Chaudron et al., 2004). During these recurring visits, pediatric providers often form a trusting relationship with parents and engage in discussions about issues involving the entire family unit (Heneghan et al., 2000). The relationship places pediatric providers in a favorable position to discuss maternal health and administer screening for PPD on multiple occasions during the time a mother is most at risk for developing depression. The American Academy of Pediatrics recognizes the impact PPD can have on the well-being of a child and recommends PPD screening during well-child visits for the first six months of life (McKean, Caughey, McKean, Cabana, & Flaherman, 2018; Earls, 2010).
Feasibility and Value of PPD Screening in Pediatric Settings

Previous studies aiming to explore feasibility and value of incorporating PPD screening into well-child visits have found the process to be achievable, cost-effective, and useful (Mgonja & Schoening, 2017; Sheeder, Kabir, & Stafford, 2008; Farb, 2015; Feinberg, 2006). A systematic review of the existing evidence on PPD screening in a pediatric setting found an overall increase in detection, referrals, and treatment of PPD (van der Zee-van den Berg et al., 2017). Chaudron et al. (2004) also reported a statistically significant increase in detection of PPD after implementing routine screening at well-child visits. Some states, such as Illinois and New Jersey, have issued recommendations, mandates, and incentives to pediatric providers for including maternal depression screening in their practice (Chaudron et al., 2007). Montana providers are urged to consider screening for PPD as well. In a presentation to the 2017 Health and Human Services Joint Appropriation Subcommittee of the Department of Public Health and Human Services stated, “…Montana Medicaid encourages and pays for providers to screen all newborn caregivers for depression during the well-child visit at week 1 and month 1, 2, 4, 6 and 9 months of age” (“Presentation”, 2017). In order to be reimbursed, providers must use an evidence-based screening tool. Screening can be done on any person who acts as the primary caregiver for the child. The CPT code 96161 is to be used for billing on the child’s visit claim (“Caregiver”, 2017).
Barriers

Mental health issues are notoriously difficult for people to discuss. Pediatric providers may feel discussing depression with a woman during a well-child visit would be intrusive or offensive. However, studies indicate mothers are not only willing to participate in screening and discussions regarding PPD, they often appreciate it (Chaudron et al., 2007; Heneghan et al., 2000). Research aimed to explore mothers’ acceptability of discussions regarding their own health status during well-child visits has shown the vast majority of women are willing to participate in these conversations. In a study done by Walker, Eun-Ok, & Tyler (2013), 95.7% of mothers were open to discussing symptoms of depression with their child’s provider. Seventy-five percent of these mothers felt it would have been a missed opportunity had they not been screened for depression. Sit & Wisner (2009) found 85% of women who attended well-child visits with their children were comfortable completing an EPDS during their child’s visit.

Many providers, especially pediatric providers, are not comfortable using formal screening tools to assess for depression in adults. Evans, Phillippi, & Gee (2015) found although more than 75% of pediatric providers report feeling a responsibility to identify PPD, only 7% utilize a screening tool to assess for it. Part of this could be attributed to a lack of knowledge and education. Providers may be unaware of the evidence supporting the use of validated screening tools when it comes to depression screening. Failure to utilize evidence-based tools may also be attributed to preference as most health care providers prefer interviews over formal instruments (Sit & Wisner, 2009). However, it is well-established that depression cannot be accurately diagnosed without the aid of a
validated instrument (Heneghan et al., 2000). Screening tools such as the EPDS are easy to use and simple to interpret. However, all health care providers who utilize these tools in their practice should receive adequate education and resources to ensure the tool is being used correctly. Providers must also have an action plan to follow so positive screening results can be addressed appropriately (Chaudron et al., 2007).

Another barrier to PPD screening in the pediatric setting is controversy over scope of practice. Many providers may feel their responsibility is to the child, not the adult. While this is not untrue, it has been ascertained that the well-being of the child is greatly affected by the health status of the parent. The AAP considers the scope of practice of the pediatric provider to include assessments and consideration of the family and environment which includes maternal depression. It is important for pediatricians to understand they are not being asked to formally diagnosis a mother with PPD, rather they are asked to monitor for signs and symptoms that may indicate maternal depression, and provide support, guidance, and referrals according to their discretion (Rychnovsky & Brady, 2008). A pediatric provider’s first priority is the well-being of the child. However, it should be noted that one of the primary motives behind screening for PPD is to ensure the safety and health of the child (Chaudron et al., 2007). Research on PPD screening continues to take place. Although existing evidence favors screening for maternal depression in the pediatric setting, there is not enough to create a standard of care that would require pediatric providers to conduct PPD screening. Regardless of the existing barriers, the benefits of screening for maternal depression at well-child visits far outweigh the risks (Chaudron, et al., 2007).
PPD is a common complication that women experience up to a year after childbirth. Although treatment options are available and often effective, it is estimated only half of PPD cases are ever recognized and treated. The impact of this psychiatric mood disorder can be detrimental to mothers, fathers, and infants. Incorporating PPD screening guidelines into routine well-child visits may give pediatric providers a unique opportunity to identify women who may be struggling with depression and provide them with helpful education and resources.
CHAPTER THREE

METHODS

Problem/Purpose

Current recommendations from the AAP encourage pediatric providers to screen postpartum mothers for depression at well-child visits (McKean, Caughey, McKean, Cabana, & Flaherman, 2018; Earls, 2010). The purpose of this project was to examine the feasibility of initiating postpartum depression screening in the first year of routine well-child visits in the pediatric outpatient setting. The intent was to note the number of positive screenings, identify barriers and facilitators of incorporating PPD screening into routine well-child visits, and to explore perceptions and beliefs of the participating pediatric providers and staff nurses.

Setting/Participants

The project setting was an outpatient pediatric clinic in Montana. Services are offered to sick and well children ages newborn to 18 years old. The clinic is part of a health system that includes the only Labor and Delivery unit in the county. Many parents choose to establish care for their child within the same organization where the child was delivered. The clinic is one of only three pediatric clinics in the community. At the time of the project there were three pediatricians and two nurse practitioners employed at this site. Each provider has an assigned staff nurse with whom they work very closely.
One of the five providers chose not to participate in this project due to other commitments and obligations. Both nurse practitioners and two pediatricians participated. Of the four office nurses assigned to the participating providers, one chose not to participate. Another agreed to participate in the project initially but transferred to a new provider shortly after the project began and could no longer take part from that point forward. Among the participating providers, only one had previous experience routinely screening mothers for PPD. This provider has continued to ask mothers about their mood and briefly mention the risk of PPD but has not utilized a formal screening tool. The other three providers denied routinely assessing for or discussing PPD prior to the initiation of this project.

**Human Subject Protection/IRB**

The Montana State University Institutional Review Board granted exempt approval prior to the initiation of the first steps of the project (See Appendix E). Permission to carry out the proposed project plan was granted by administrators of the organization. There were no patient identifiers collected during the data collection procedures. Since the study population was the clinicians, not the mothers, written consent from the mothers was not required for this project. There was no anticipated or observed harm to the participating clinicians during the planning or implementation process. Participation of the providers and nurses was voluntary, and they were allowed to cease participation at any time. Written consent from the clinicians who chose to participate was obtained prior to implementation.
The Screening Tool

The screening tool used for this project was the EPDS (See Appendix B.) The self-report instrument is the most common tool used to screen for PPD (Sit & Wisner, 2009). The instrument can be accessed for free, takes only a few minutes to complete, and is easy to read and understand (Rychnovsky & Brady, 2008). The EPDS tool consists of 10 questions. Each question is scored on a 4-point Likert scale ranging from zero to three for a total score ranging from zero to 30. Women answer the questions based on how they have felt over the past seven days. Five of the questions address dysphoric mood, two questions focus on anxiety, and three of the questions refer to guilt and suicidal ideation (Banti et al., 2011). A score of 10 is the recommended cut off for possible depression and 12 is suggested as a cutoff for probable depression (Morgan & Yount, 2012). The instrument has been extensively validated with a reported sensitivity of 85% and specificity of 77% (Rychnovsky & Brady, 2008).

Procedures

The project was loosely modeled after a prospective analysis completed by Andrea Sessoms of East Carolina University (Sessoms, 2014). Guidelines were created for incorporating PPD screening into well-child visits using the information and recommendations collected from the literature review (see Appendix A). The guidelines were intended to be used to assess mothers who accompanied their infants for 1-month, 2-month, 4-month, 6-month, 9-month, and 12-month well-child visits during the 8-week data collection period. Clinicians screened mothers for PPD using the EPDS.
Prior to implementing these guidelines, the participating clinicians were asked to fill out a survey to yield pre-implementation data on their perspectives and beliefs about PPD screening in the pediatric setting, (see Appendix D.) They were provided with the literature review findings and given a brief verbal summary of the current research, recommendations, and the purpose of the project. Clinicians were trained to correctly administer and interpret the results of the EPDS. They were given a folder with multiple copies of the EPDS to be handed to patients and a key to help them score the tool quickly. The process guidelines were reviewed, and adjustments were made as requested by the participating clinicians. The guidelines were printed and given to each clinician. The clinicians were coached on how to proceed in the event a mother screened positive. They were instructed to briefly explain the screening results and offer mothers support, encouragement, and reassurance. In the folders provided to each clinician were several copies of printed patient education handouts on PPD (see Appendix F). These handouts are available online and intended to be used for patient education. The referral process was discussed as well. The clinicians had the opportunity to clarify expectations, ask questions, and request changes prior to implementation as well as throughout the data collection process. All providers and nurses gave written consent to partake in the project and were able to verbally demonstrate their understanding of the PPD screening guidelines prior to implementation.

Initially the intention was for the staff nurses to hand out the EPDS tool for mothers to fill out while they weighed and measured the patients. However, three of the four providers preferred to hand the screening tool out themselves. A decision was made for each provider to work this new process into their workflow based on their own
preferences. The guidelines were altered to reflect that preference. In the original guidelines, once the mothers filled out the screening tools, the nurses were to calculate the score and inform the pediatric provider if the score was greater than 10. Again, the providers preferred to score the questionnaire themselves. If mothers scored greater than 10 on the EPDS, they were to be verbally educated by the pediatric provider, given written education, and advised to follow up with their obstetric provider based on the discretion of the pediatric provider. The goal of PPD screening in this pediatric setting was not for pediatric providers to formally diagnose depression in mothers, but for them to recognize when mothers are showing signs of depression and have the ability to provide them with helpful education and resources.

Data Collection

Each provider was given a data collection form (see Appendix C). The form was adapted from the form used in Sessoms (2014). The providers recorded the age of the child, whether or not the EPDS was administered, the results of the EPDS assessment, and how the results were addressed. If a mother was not given the screening tool, there was a place for the clinician to note why. There was also a space to indicate if education and referrals were not made when indicated and why. Several of the providers also wrote additional notes and comments on the forms throughout the data collection period. Data collection began September 19, 2018 and ended on November 14, 2018. During these 8 weeks, the intent was for all women who accompanied their child to a 1-month, 2-month, 4-month, 6-month, 9-month, or 12-month well-child visit with one of the four participating providers to be screened using the EPDS. On the first day of
implementation, I was available to answer questions, assist with the workflow, address any issues, and obtain feedback from providers and nurses. After that, I checked in once a week by phone or e-mail until the data collection period ended.

After the data collection period ended, each clinician was given a post-implementation survey that included the same questions as the pre-implementation survey plus a few additional questions to determine if some of the perceptions and beliefs about PPD screening at well-child visits had changed as well as how the process went overall. I intended to conduct recorded interviews with questions prepared ahead of time. However, the providers and nurses were working through some significant organizational changes, and it was not possible to schedule uninterrupted time with each clinician. I engaged each clinician in a short verbal de-briefing to discuss what went well, what did not go well, and what should have been done differently. During this discussion each clinician was specifically asked about barriers and frustrations as well as what was most valuable and if and how participating in this project might impact their practice. The notes from these discussions were compiled and will be reviewed in the discussion chapter of this project.
CHAPTER FOUR

RESULTS

For this project, four pediatric providers and two staff nurses in a pediatric clinic implemented postpartum depression screening during well-child visits over an 8-week period. In accordance with recommended practice, mothers were asked to complete the EPDS as a part of their child’s visit. Data collected included number of moms receiving the screening, EPDS scores obtained, follow-up completed for positive screening, and reasons why screening did not occur.

**EPDS Results**

Screening data were collected on 88 occasions during the 8-week period. Of these 88 opportunities for screening, 14 mothers did not fit the guidelines for use of the EPDS. The guidelines prompted screening during well-child visits beginning at one month. The providers collected data on 13 mothers who had accompanied infants ages newborn to two weeks. One mother included in the data set had brought her child in for a sick visit, not a well-check. The data from these mothers were included in data tables for comparison, but it was noted their situation did not prompt evaluation per the project guidelines. It could be argued that any interaction with a postpartum mother would be a reasonable opportunity to screen for depression based on the judgement of the provider. A summary of the number of mothers who were screened and the number of mothers who were not screened is provided below, (see Table 1).
Table 1.

<table>
<thead>
<tr>
<th>Age of Child (n, %)</th>
<th>Mother Received Screening n (%)</th>
<th>Mother Did Not Receive Screening n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborn (6, 7%) *</td>
<td>4 (67%)</td>
<td>2 (33%)</td>
</tr>
<tr>
<td>2 weeks (7, 8%) *</td>
<td>5 (71%)</td>
<td>2 (29%)</td>
</tr>
<tr>
<td>1 month (1, 1%)</td>
<td>1 (100%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>2 months (29, 33%)</td>
<td>14 (50%)</td>
<td>14 (50%)</td>
</tr>
<tr>
<td>4 months (13, 15%)</td>
<td>11 (85%)</td>
<td>2 (15%)</td>
</tr>
<tr>
<td>5 months (1, 1%)</td>
<td>1 (100%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>6 months (20, 23%)</td>
<td>12 (60%)</td>
<td>8 (40%)</td>
</tr>
<tr>
<td>9 months (5, 5%)</td>
<td>2 (40%)</td>
<td>3 (60%)</td>
</tr>
<tr>
<td>12 months (6, 7%)</td>
<td>2 (33%)</td>
<td>4 (67%)</td>
</tr>
</tbody>
</table>

*Outside of pre-approved guidelines

Of the 88 encounters where data were collected, 35 (40%) of mothers were not given the screening tool at all. The most common reason for not administering the screening was the staff or providers forgot (See Table 2). Three of the four providers reported they often forgot to fill out the data form at all. The number of missed opportunities is likely much higher than 35 but the exact number is not attainable.

Table 2.

<table>
<thead>
<tr>
<th>Mothers Not Screened</th>
<th>Providers/Nursing Staff Forgot (n, %)</th>
<th>Mother Forgot to Fill Out Screening Tool (n, %)</th>
<th>Mother Declined (n, %)</th>
<th>Mom did not attend visit (n, %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=35</td>
<td>28 (80%)</td>
<td>2 (6%)</td>
<td>1 (3%)</td>
<td>4 (11%)</td>
</tr>
</tbody>
</table>
A total of 53 EPDS tools were administered but three of the scores were left blank on the data sheet. Of the 50 scores recorded, 8 were greater than 10, suggesting depression. See Table 3 for a summary of the follow-up provided after positive screenings. One entry did not indicate whether the mother received any verbal education. Another entry noted the tool had been scored after the mother had already left so no verbal education was given. Of the mothers who were offered written education, one mother left the education handout behind and four mothers declined the handout. One mother declined an OBGYN referral, and four were already being managed for postpartum depression by their provider. One entry did not include an explanation for why the mother was not referred to her provider despite a positive screen.

Table 3.

<table>
<thead>
<tr>
<th>Number of Positive Screens</th>
<th>Received Verbal Education</th>
<th>Received Written Education</th>
<th>Referred to OBGYN Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>6</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
Pre-implementation/Post-implementation Survey Results

Four providers and two staff nurses filled out the pre-implementation and post-implementation survey. See table 4 for pre-implementation survey results and table 5 for post-implementation results. The first six questions on both surveys were identical. Seven additional questions were added to the post-implementation survey. Results are reported below.

Table 4.

<table>
<thead>
<tr>
<th>Pre-Implementation Survey Results</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Please identify your professional role:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I feel like screening mothers for PPD is valuable to my practice.</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3. I feel confident screening mothers for PPD utilizing a validated screening tool.</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. I feel confident in my ability to counsel and educate mothers on PPD.</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. I feel confident in my ability to provide mothers with resources for PPD.</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. I feel like adopting PPD screening guidelines as a standard in my practice is feasible.</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 5.

<table>
<thead>
<tr>
<th>Post Implementation Survey Results</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Please identify your professional role:</td>
<td></td>
<td></td>
<td>Nurses: 2 Providers: 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I feel like screening mothers for PPD is valuable to my practice.</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3. I feel confident screening mothers for PPD utilizing a validated screening tool.</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. I feel confident in my ability to counsel and educate mothers on PPD.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. I feel confident in my ability to provide mothers with resources for PPD.</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. I feel like adopting PPD screening guidelines as a standard in my practice is feasible.</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7. The education you received prior to implementation of PPD screening guidelines was informative and helpful.</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8. The resources given to you prior to implementation of these PPD screening guidelines were informative and helpful.</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9. I felt confident administering the Edinburgh Postnatal Depression Scale to patient mothers.</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10. I felt confident interpreting the results of the Edinburgh Postnatal Depression Scale.</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11. I feel like utilizing these guidelines required a significant amount of time.</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>12. I feel like utilizing these guidelines required a significant amount of effort.</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>13. This screening tool was easy for mothers to complete.</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
De-Briefing Results

Although the clinic nursing staff were originally going to play an integral part in the implementation process of this project, their participation ended up being minimal. It became easier for providers to hand out the screening tool, score it, and follow up with the results themselves. One nurse consistently handed the tool out but was otherwise minimally involved in the process. The other nurse did not hand out a single screening tool. Their feedback was based on their knowledge of the typical workflow, their experience with well-child visits, and their personal experience as mothers. The four providers gave the most feedback on the actual implementation process and the feasibility of incorporating PPD screening into their practice. Their sentiments are summarized below.

What Went Well?

All four providers felt knowing a mother was potentially suffering from PPD was valuable to their practice. During this project, each of them came across at least one mother who screened positive for depression based on the results of the EPDS. Prior to this project, they may have remained unaware these mothers were struggling emotionally. Three of the providers said although most of the mothers who screened positive were already aware of their condition and were currently being treated for depression, it was valuable to know their patient was living with a parent who is depressed. The information helped them with their assessment and made them more aware of a potential stressor in
the child’s home environment. Two providers requested to keep the project materials to use as resources.

One provider felt PPD screening was valuable to her practice and a feasible routine to incorporate into well-child visits. She did not believe the process took a significant amount of time and she reported her intention to continue to screen mothers of infants during well-child visits. She shared her recent review of an article from the AAP emphasizing the value of screening mothers for PPD in the pediatric setting. Her opinion is that it will soon become the expectation and the most important key to successfully implementing this practice would be to improve the referral process.

What Did Not Go Well?

Every clinician, nurses included, felt the most difficult part of implementing this project was remembering to hand out the survey and remembering to record the information on the data collection forms. There were times the nurse participants were gone, and the fill-in nurses did not know about the project or how to administer the screening tools. There were also some significant changes to the electronic health record during the time this project was occurring which was a distraction. During this time, no one filled in the data sheets at all because they felt preoccupied and overwhelmed with the electronic health record changes.

Two providers mentioned their concern about overwhelming mothers with paperwork. Mothers must sign consent forms and fill out health histories during some visits. Providers also administer several screenings and questionnaires throughout the first year of well-child visits. For example, they begin handing out the Ages and Stages
Questionnaire (ASQ) at nine months. This is a multi-page document used to assess normal development stages. The questionnaire is relatively long, and the two providers felt like adding an additional document was a lot to ask of mothers during well-child visits.

A significant frustration reported by three of the four providers was administering the screening and following up per the guidelines with mothers who had already been diagnosed with depression. The providers would take the time to administer the screening and provide education but would then learn the mother is already being managed appropriately. They viewed this as wasted time. Some providers have as little as 20 minutes per visit so wasted time can result in a less thorough assessment of the child or inadequate education for the family.

A concern reported by one of the nurses was her observation that mothers did not always seem to be taking the time to fill out the screening tool correctly. Mothers were often preoccupied with the child they had brought in for the well-visit or with the siblings who had accompanied them as well. The nurse observed some mothers quickly filling the tool out without appearing to have read the questions very thoroughly. Some mothers forgot to fill it out or only filled it out partially. This made the nurse question the accuracy of the EPDS results. This nurse also sensed frustration from some of the mothers being asked to fill out the screening tool. These mothers expressed they were there to have their child examined and did not want to focus on themselves. She also felt like talking to women about their mental health status was a sensitive conversation that could make them feel vulnerable. For mothers who were accompanying a child who was
two months old or less, she felt like there had not been enough time for the provider to build a trusting relationship that would allow for the mother to open up and talk about her vulnerabilities.

What Should Have Been Done Differently?

All clinicians felt the screening tool would have been used more consistently if it were handed out by the front desk staff as part of the normal packet of paperwork given to parents when they check in just before their child’s appointment. Two providers also suggested redesigning their assessment tool to include a reminder to administer the screening. Each provider uses an assessment tool to record their notes and guide their well-child visit. If a check box for PPD screening were added to this tool, it would prompt them to look for the results and prevent them from forgetting to address it. One provider mentioned it would also be helpful to add prompts in the electronic health record.

Three providers felt it would have been very helpful to add a question at the beginning of the screening tool asking if a mother has already been diagnosed with depression, anxiety, or PPD. If the mother answered yes, she would not need to continue filling out the screening tool. Providers would then have the ability to note a mother is struggling with her mental health without wasting time administering the screening guidelines. These providers felt that this change would reduce their frustration with the time and effort required by the project guidelines.

One provider called into question the timeframe of the guidelines. The guidelines prompted providers to screen all mothers accompanying children ages 1 month to 12
months. Screening for a full year was based on the research indicating a mother is at risk for developing depression any time within the first 12 months postpartum as well as the Montana Department of Health and Human Services 2017 notice recommending caregiver screening throughout the first year of a child’s life. The AAP recommendations only suggest screening until the child is six months old (Screening, 2018). This provider would prefer to follow the AAP recommendations of screening for the first six months as opposed to an entire year.
For this project, PPD screening of mothers was implemented by pediatric providers during well-child checks. The intention was for all mothers who accompanied a child between the ages of 1 month and 12 months to be screened for PPD using the EPDS tool. Ultimately, 50 scores were recorded of the 88 screening opportunities that occurred. There were 8 scores that were higher than 10 on the EPDS, suggesting depression. This represents 15% of the mothers who were screened which is comparable to the national average of 10-20% (Sriraman, 2010; Bobo & Yawn, 2014; Mayo Clinic, 2014; Waldrop, Ledford, Perry, & Beeber, 2018). In the Sessoms DNP project, one mother of the 14 who were screened was positive for depression. It is difficult to make comparisons between the positive screening results of these two projects since there were significantly more mothers screened in this project compared to Sessoms (2014). Also, the Sessoms guidelines indicated screening at 2-month well-child visits only where the guidelines for this project prompted screening at all well-child visits for the first 12 months.

Although half of the positive screens for this project were mothers who had previously been diagnosed with PPD and were already being managed, there were two mothers who screened positive and had not been previously diagnosed. These individuals were educated and referred to their OBGYN provider for follow-up. Although it cannot be determined for certain, it is worth considering the PPD screening conducted by the pediatric providers may have brought attention to signs and symptoms of depression in these women that may have otherwise gone undetected by a clinician. Interestingly, what
was most valuable to the providers who participated in this project was not detecting depression in postpartum women, but being made aware their patients’ mothers were suffering from depression. Knowing the impact PPD can have on children, the providers appreciated knowing if their patients were at risk. Although there were only two potential cases of PPD detected and referred, providers were made aware of eight children who were at risk of being impacted by PPD.

The largest barrier encountered during this project was providers and nurses forgetting to incorporate the PPD screening into their routine. They forgot to hand out the screening tool many times and then forgot to record each time they failed to screen a mother who met the guidelines. This clinic was very busy during the time this project was being implemented and providers were often rushing from one patient to the next. There were changes made to the computer system a few weeks in and several changes made to staffing. Staff nurses have many tasks throughout the day and are kept very busy settling patients, taking phone calls, filling out paperwork, entering data into the computer, and administering mediations and vaccines. It is very difficult to incorporate a new intervention into an already busy routine. As all of the providers and staff nurses suggested, it would have been better to have the screening tool handed out at the front desk with the rest of the normal paperwork. Packets are put together ahead of time and the EPDS could have simply been added to the checklist to ensure it was included and administered.

Another barrier that occurred was general resistance to making the change. Several providers expressed frustration with spending time focusing on a screening for
the mother instead of focusing on the child. These providers felt like it was fine when the screening was negative but when the screening was positive, the education and referral process was time-consuming and required a significant amount of effort. However, there was one provider who strongly disagreed with these negative responses. She did not feel like the screening process took any additional time. When she did come across positive screens, she felt her only responsibility was to offer a brief verbal explanation of what the tool indicated, hand out the paper education, and make the referral. It took only a few minutes of her time because she did not feel obligated to spend an exorbitant amount of time counseling and educating on PPD. She only felt responsible for giving mothers the resources they needed to address this issue with the appropriate provider. This provider valued the guidelines more than the other providers and gave the most positive feedback. Her only suggestion was to make the referral process faster, easier, and more effective. Making the referrals was the only step that she felt was time-consuming and frustrating. This issue could be addressed by establishing a task force focused on improving provider to provider referral processes. Gaining input from the OBGYN providers would be useful when working to create this process so the end result would be efficient and effective for both the pediatric and OBGYN providers. Based on clinician responses, the provider who felt the guidelines were easy to follow and did not require much time or effort was likely following the guidelines correctly. Half of the survey respondents felt the PPD screening required a significant amount of time. It is possible these providers were spending more time than required on the education process. It may have been beneficial to clarify their role and better communicate the guideline expectations which were to identify the signs
of PPD, offer brief verbal education, hand out the written education, and then refer them to a provider who is more qualified to manage the problem. Perhaps this could have been presented more clearly prior to implementation and recognized earlier with a better pre-implementation process. There was no formal evaluation of the providers’ understanding of the guidelines prior to implementation. Maybe the education presentation should have been followed by a post-test to ensure the providers truly understood what was being asked of them. Regardless, the culture of the workplace and the priorities and expectations of the providers in regard to their time is important to consider, as it has a significant impact on how they perceive the burden of implementing a new intervention.

Another potential barrier identified by providers was the amount of paperwork mothers are required to fill out. This may or may not be a realistic concern. The EPDS generally takes less than 5 minutes to complete and all six respondents unanimously agreed that it was easy for mothers to complete. It is important to consider the tool may not be as quick and easy for mothers who struggle with literacy. In these cases, the mothers would need assistance from a staff nurse or provider to read and answer the questions. A process for recognizing and addressing this issue when it arises should be added to the guidelines. Mothers generally fill out a health history form once then update it if needed at each well child visit. Providers were most concerned about too much paperwork for when the mother was required to fill out an ASQ survey. This multi-page document takes several minutes to fill out completely and is first administered when a child is nine months old. However, by nine months the child would only have two well-checks left that required the mother to fill out multiple forms since PPD screening ends at
12 months per these guidelines. Another consideration would be to change the guidelines
to reflect the AAP recommendations as suggested by one of the providers. If PPD
screening ended at 6 months, mothers would not be filling out the screening tool at the
same time as the ASQ survey.

Some concerns that surfaced during post-implementation discussions were related
to the participation of the mothers. Some mothers did not seem to take the time to read
through the questions and answer them thoughtfully. Some mothers were disengaged
when it came to discuss their own well-being and preferred to focus on the child. A staff
nurse suggested some mothers might feel uncomfortable discussing such a personal topic
with a pediatric provider whom they have only known for a few weeks at most. Although
these concerns are logical and may be significant in some cases, the literature review and
project findings suggest these are not common problems to encounter when routinely
screening for PPD. Research has indicated mothers are generally willing to be screened
and often appreciate the concern over their well-being and how it impacts their child
(Chaudron, et al., 2007; Heneghan et al., 2000). Of the fifty-three mothers who were
screened during the course of this project, only one refused. None of the providers
commented on mothers appearing to be uncomfortable discussing PPD during their
encounters. Some mothers may require a more thorough explanation of why providers
screen for PPD in the pediatric setting. They may always choose to decline, and the
provider can simply chart the screening was refused.

One of the most prevalent frustrations encountered by the providers was wasting
time repeating the full screening process when mothers had already been diagnosed and
were being managed for depression. This issue could be resolved very easily by including a question at the top of the screening tool asking if a mother has been recently diagnosed with anxiety or depression. This solution was suggested by the providers as it would allow them to note if a mother has depression but would not require the time it takes to go through the screening, education, and referral process. It may also be advantageous for OBGYN and Pediatric providers to engage in a cross-specialty meeting, as a process like this would benefit from collaborative efforts. This was not a common issue identified or discussed in the literature or reported in Sessoms (2014).

Another issue that came to light during this project was the role of the staff nurses. Their involvement was minimal as the providers handed out the tools, scored them, and followed up on them in most cases. Administering and scoring the screening tool is well within the scope of practice of a nurse. Delegating this responsibility to staff nurses would be consistent with the Institute of Medicine’s recommendations that all nursing professionals should practice within the full extent of their education and training (IOM, 2011). It was determined that handing out the tool would be best suited for front desk staff but perhaps collecting and scoring the tool would be a more appropriate responsibility of the staff nurse rather than the provider. If the mother has already filled out the screening tool while waiting to be called back to the exam room, it would be simple for her to hand it to the staff nurse when she is called back with her child. The staff nurse could score the tool after leaving the exam room and give it to the provider only if it were positive. This would only require the participation of the provider in cases where the mother screened positive for depression which is the only step of the process
requiring their involvement. The providers shared concerns of the staff nurses already being overloaded with tasks and responsibilities but scoring the EPDS tool takes less than a minute. It seems that the true barrier continues to be resistance to change and difficulty incorporating a new step into an already established routine.

The most surprising results were yielded by the pre-implementation and post-implementation surveys. It was expected that providers would find more value in utilizing PPD screening and feel more confident in utilizing the tools, counseling and educating mothers, and providing them with resources after the project was implemented. Instead, providers found PPD screening less valuable and less feasible based on the post-implementation survey results compared to the pre-implementation survey results. Their confidence in utilizing tools, counseling and educating mothers, and providing resources also decreased. There are possible explanations for these results. First, it is possible the preparation and education prior to implementing the guidelines were not sufficient. Providers may not have been well enough prepared to incorporate these guidelines into their practice. Second, it is possible providers were overconfident in their ability to address PPD in mothers prior to the project. Perhaps after participating in this project they found the process to be more of a learning curve than they had anticipated. In retrospect, incorporating more education into the pre-implementation process and performing more frequent evaluations during the data collection period may have led to opportunities to improve the process and increase the confidence and satisfaction of the procedures.
Although routine PPD screening at well-child visits was not a standard of care during the time this project was carried out, administrators of the organization have recently announced this process will soon become an expectation. The EPDS is now available to providers within their electronic health record. In the near future, pediatric providers will be required by the organization to screen mothers for PPD at well-child visits per AAP recommendations. The providers have been attending meetings and discussing how to ensure this process is implemented effectively. Perhaps the experience they gained by participating in this project will help them to develop a process that will be successfully incorporated into their practice.

Application of Mercer’s Theory of Maternal Role Attainment

Husmillo (2013) states, “The key to effective and efficient maternal-child bonding lies in the hands of the healthcare providers that care for these individuals, no matter how brief that contact may be” (p. 48) Mercer’s theory illustrates why this project is important. The purpose of this project was to initiate a process that promotes recognition of depression in mothers. The four concepts of Mercer’s theory were incorporated into the design of the project. Prompting providers to offer mothers care and guidance was based on the concept of “Nursing.” Encouraging providers to acknowledge the well-being of each mother and to intervene when PPD may be interfering with maternal role attainment integrated the concept of “person.” Likewise, guiding the providers to incorporate the assessment of a family member rather than focus only on the individual child was based on the concept of “health.” Finally, providers were given the opportunity
to better assess each child’s environment. “Environment” is the final concept of Mercer’s theory and emphasizes how a child’s surroundings can impact their well-being. Designing a project based on the concepts of the Maternal Role Attainment Theory helped to keep the project moving toward the overall goal of further developing family-focused care in this organization.

**Limitations**

There are several limitations that should be considered prior to drawing conclusions from the results of this project. First, 40% of the 88 encounters included in the data collection were not screened. In Sessoms (2014) nine mothers out of a total of 23 well visits were not screened. Interestingly, this ratio translates to 39% which is almost identical to the percentage of mothers who were not screened for this project. Unfortunately, the failure of providers to record all missed opportunities and an explanation for why they were missed, makes it impossible to determine the true number of missed opportunities and makes it difficult to uncover the reasons behind the failure to screen these mothers. The high percentage of mothers who were not screened in addition to the information not recorded may have resulted in data that does not accurately represent the population of interest.

Another limitation to this project was the small sample size of providers. The perceptions and beliefs of only four pediatric providers in a single organization may not serve as a true representation of the general population. The feasibility of implementing these guidelines may differ depending on the provider as well as the culture, workflow, and barriers encountered in various organizations. It would be ideal to examine the
feasibility of implementing PPD screening guidelines in numerous pediatric primary care clinics throughout the state.

A factor that may have impacted the accuracy of the pre-implementation and post-implementation survey results was the responses from the two staff nurses. As discussed, these individuals were minimally involved during the implementation of this process. However, they did provide feedback and fill out the surveys. It may have been better to survey only the four providers as they were the ones who were actively involved in the project steps. The staff nurses offered valuable input but perhaps it was not necessary for them to fill out the surveys. An interview would have been sufficient to gain their insight without skewing the results of the survey questions.

Finally, this project was limited by a short time frame amplified by the busy, demanding schedules of the pediatric providers. It was difficult to coordinate meetings that allowed adequate time and were free from interruptions. This made it difficult to supply detailed, thorough education, explanations, and directions to each provider prior to implementation. For example, one provider requested for the pre-implementation meeting to occur during a block of time she was scheduled to perform a circumcision. This was distracting for both the provider and student, resulting in the education piece being less informative and likely making the directions more difficult to recall, understand, and follow correctly. After implementation, this same issue made it difficult to conduct the recorded interviews as intended. Even when time was scheduled to complete the post-implementation survey and partake in a short interview, the providers were continually being interrupted by other staff. Providers would often have to pause and address an issue
with a patient, schedule, or other obligation. The frequent interruptions and discussions about patient details made it an inappropriate setting for recording. The providers were distracted and rushed during these conversations and several of them had to be cut short. The information gathered from these encounters was far less robust than what was hoped for.

Lessons Learned

This project gave me a much deeper understanding of the challenge of translating research to practice. A practice change may be rooted in compelling, high-quality evidence and implementation of change might be simple and uncomplicated on paper. However, the true feasibility of implementing change is determined by much more. It depends on the perceptions, beliefs, and buy-in of the clinicians, how realistically it can be incorporated into workflow, and how well it is implemented. For this project, more time and effort should have been applied to gain buy-in from the providers prior to implementing this process change. Perhaps they would have followed the guidelines more closely and provided constructive feedback more readily if they had been more involved and engaged in the first place.

Another important lesson I learned during the course of this project was how important it is to have a comprehensive understanding of the workflow within an organization prior to implementing a change. I designed a guideline and presented it to providers without having spent time studying the daily processes already in place. The result was a proposed change that was not compatible with the workflow of the clinic. I
assigned the role of handing out screening tools to providers and staff nurses when it was a responsibility much better suited for the front desk staff.

Finally, I learned how advantageous it would have been to utilize a change management model or tool as a framework for developing the steps of my project. I believe this would have enhanced my preparation and improved the quality of my implementation process. In retrospect, many of the problems I encountered during the course of my work were related to inadequate preparation, education, and evaluation prior to implementing the intervention. I did not evaluate the implementation process until the end of the data collection period. If I had made assessments and modifications as the project unfolded, I may have been able to remove barriers, gather higher quality data, and improve the perceptions of the providers. A framework would have guided me through these steps in a much more organized manner. I believe it would have helped me to avoid missing important steps to successfully implementing change.

**Consideration of the DNP Essentials**

The Doctor of Nursing Practice (DNP) Family Nurse Practitioner Program at Montana State University is based on the eight DNP essentials required for all doctoral nursing programs. According to Montana State University’s Doctor of Nursing Practice Scholarly Project Handbook of 2016-2017, “The purpose of the DNP Scholarly Project is to provide you with the opportunity to acquire expertise in clinical practice knowledge development to enhance quality of care and patient outcomes” (p. 3) This project relates to the first three essentials and has helped me establish a foundation for my future
practice as a doctoral prepared nurse practitioner. By utilizing a middle-range nursing theory to guide a practice change, I was able to integrate nursing science into practice. “Scientific underpinnings for nursing practice” is the first DNP essential outlined by the American Association of Colleges for Nursing (AACN, 2006). In the future I intend to use nursing science and theories to improve patient outcomes and enhance the quality of care I provide as an advanced practice nurse in the same way I used it to implement a practice change as a student.

My project was based on a specific population of patients and aimed to improve the quality of care by utilizing a low-cost strategy. The process required systems thinking, leadership, communication, and the facilitation of change within a system. These project components incorporated “organizational and systems leadership for quality improvement and systems thinking” which is the second DNP essential (AACN, 2006). As a doctoral prepared nurse practitioner, I want to seek out the opportunity to impact change on an organizational level. This will require the leadership and communication skills that I was able to further develop during the process of completing this project. This project gave me the opportunity to work toward improving outcomes in both of the patient populations I am most passionate about within the system I intend to practice in.

Finally, this project required me to incorporate the third DNP essential, “Clinical Scholarship and Analytical Methods for Evidence-Based Practice,” as I moved through the process of identifying a clinical problem and reviewing the existing literature related to the problem (AACN, 2006). During my review I critically analyzed the evidence to
determine how to best design an intervention and implementation process. AACN (2006) states, “scholarship and research are the hallmarks of doctoral education.” Participating in this project gave me the opportunity to investigate a problem and develop a potential solution based on evidence. As a future practitioner I will use this approach to address clinical problems and ultimately improve patient safety and outcomes.

Conclusion

Postpartum depression is a common mood disorder affecting 10-20% of postpartum women (Sriraman, 2010; Bobo & Yawn, 2014; Mayo Clinic, 2014; Waldrop, Ledford, Perry, & Beeber, 2018). Although effective management options exist, it is estimated that only half of cases are ever formally diagnosed (Bobo & Yawn, 2012; Sriraman, 2010). Pediatric providers often encounter postpartum mothers during well-child checks and are presented with a unique opportunity to screen for maternal depression during the period of time mothers are at the highest risk. The adverse effects of PPD on children and families are well documented making this issue a significant concern that should be considered by pediatric providers (Conners-Burrow et al., 2014; O’Hara & McCabe, 2013). The American Academy of Pediatrics supports the incorporation of PPD screening into routine well-child visits.

Although research supports the adoption of PPD screening in pediatric settings, implementing practice changes can be a challenging process. Although the results of this project did suggest PPD screening during well-child visits increases the detection and awareness of PPD and incorporating the PPD screening guidelines is relatively feasible, it also revealed that adequate preparation, thorough education and evaluation of
understanding, a high-quality implementation process, and stakeholder buy-in all have a large impact on the overall success of implementing these types of guidelines. It is also important to have a solid referral process in place that allows pediatric providers to make referrals quickly and easily. More research is needed to explore the impact PPD screening has on patient outcomes as well as how screening can best be integrated into routine well-child visits.
REFERENCES CITED


Emerson, Margaret R. (2018). Postpartum Depression Screening for New Mothers at Well Child Visits. *MCN, the American Journal of Maternal Child Nursing,*, 43(3), 139-145.


APPENDIX A

POSTPARTUM DEPRESSION SCREENING GUIDELINES
Postpartum Depression Screening Guidelines

Use these guidelines to screen all mothers who accompany their child to well-child visits for children ages 1-month, 2-months, 4-months, and 6-months

1. Providers/Staff Nurses: Ask mothers to fill out the EPDS
   *Remind patients to fill out the questions based on how they have felt in the past 7 days.

2. Providers: Collect the EPDS from the mothers and calculate the score.

3. Providers: If the mother scores greater than 10 on the EPDS, she is experiencing signs of postpartum depression.
   - Provide verbal education and counseling
   - Provide printed education provided by DNP student
   - Make referral to the mother’s OBGYN
   - If during your encounter, the mother admits to suicidal/homicidal ideation, refer her to the emergency room. In this case a staff nurse should accompany her to the ED.
APPENDIX B

EDINBURGH POSTNATAL DEPRESSION SCALE (EPDS)
# Edinburgh Postnatal Depression Scale (EPDS)

Name: ___________________________  Address: ___________________________

Your Date of Birth: ___________________________  Phone: ___________________________

Baby’s Date of Birth: ___________________________  Phone: ___________________________

As you are pregnant or have recently had a baby, we would like to know how you are feeling. Please check the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

Here is an example, already completed.

I have felt happy:
- Yes, all the time
- Yes, most of the time  This would mean: "I have felt happy most of the time" during the past week.
- No, not very often  Please complete the other questions in the same way.
- No, not at all

In the past 7 days:

1. I have been able to laugh and see the funny side of things
   - As much as I always could
   - Not quite so much now
   - Definitely not so much now
   - Not at all

2. I have looked forward with enjoyment to things
   - As much as I ever did
   - Rather less than I used to
   - Definitely less than I used to
   - Hardly at all

3. I have blamed myself unnecessarily when things went wrong
   - Yes, most of the time
   - Yes, some of the time
   - Not very often
   - No, never

4. I have been anxious or worried for no good reason
   - No, not at all
   - Hardly ever
   - Yes, sometimes
   - Yes, very often

5. I have felt scared or panicky for no very good reason
   - Yes, quite a lot
   - Yes, sometimes
   - No, not much
   - No, not at all

6. Things have been getting on top of me
   - Yes, most of the time I haven’t been able
to cope at all
   - Yes, sometimes I haven’t been coping as well
   as usual
   - No, most of the time I have coped quite well
   - No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping
   - Yes, most of the time
   - Yes, sometimes
   - Not very often
   - No, not at all

8. I have felt sad or miserable
   - Yes, most of the time
   - Yes, quite often
   - Not very often
   - No, not at all

9. I have been so unhappy that I have been crying
   - Yes, most of the time
   - Yes, quite often
   - Only occasionally
   - No, never

10. The thought of harming myself has occurred to me
    - Yes, quite often
    - Sometimes
    - Hardly ever
    - Never

Administered/Reviewed by ___________________________  Date ___________________________

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Edinburgh Postnatal Depression Scale\(^1\) (EPDS)

Postpartum depression is the most common complication of childbearing.\(^2\) The 10-question Edinburgh Postnatal Depression Scale (EPDS) is a valuable and efficient way of identifying patients at risk for "perinatal" depression. The EPDS is easy to administer and has proven to be an effective screening tool.

Mothers who score above 13 are likely to be suffering from a depressive illness of varying severity. The EPDS score should not override clinical judgment. A careful clinical assessment should be carried out to confirm the diagnosis. The scale indicates how the mother has felt \textit{during the previous week}. In doubtful cases it may be useful to repeat the tool after 2 weeks. The scale will not detect mothers with anxiety neuroses, phobias or personality disorders.

Women with postpartum depression need not feel alone. They may find useful information on the web sites of the National Women's Health Information Center <www.4women.gov> and from groups such as Postpartum Support International <www.chss.iup.edu/postpartum> and Depression after Delivery <www.depressionafterdelivery.com>.

**SCORING**

**QUESTIONS 1, 2, & 4 (without an *)\(^\text{a}\)**

Are scored 0, 1, 2 or 3 with top box scored as 0 and the bottom box scored as 3.

**QUESTIONS 3, 5-10 (marked with an *)\(^\text{a}\)**

Are reverse scored, with the top box scored as a 3 and the bottom box scored as 0.

- Maximum score: 30
- Possible Depression: 10 or greater
- Always look at item 10 (suicidal thoughts)

Users may reproduce the scale without further permission, providing they respect copyright by quoting the names of the authors, the title, and the source of the paper in all reproduced copies.

**Instructions for using the Edinburgh Postnatal Depression Scale:**

1. The mother is asked to check the response that comes closest to how she has been feeling in the previous 7 days.

2. All the items must be completed.

3. Care should be taken to avoid the possibility of the mother discussing her answers with others. (Answers come from the mother or pregnant woman.)

4. The mother should complete the scale herself, unless she has limited English or has difficulty with reading.


APPENDIX C

POSTPARTUM DEPRESSION SCREENING GUIDELINES

DATA COLLECTION FORM
<table>
<thead>
<tr>
<th>DATE:</th>
<th>Well-check age (i.e. 1 month, 2-month, 6-month, etc.)</th>
<th>Was the infant’s mother given the PPD screening form?</th>
<th>If the mother was NOT given the form, why? See codes below*</th>
<th>What was the EPDS score?</th>
<th>Was the mother provided with verbal PPD education?</th>
<th>If the mother was not provided with verbal PPD education, why? (see codes below) *</th>
<th>Was the mother provided with written PPD education?</th>
<th>If the mother was not provided with written PPD education, why? (see codes below) *</th>
<th>Was a referral made to the mother’s OB provider?</th>
<th>If a referral was not made, why? (see codes below) *</th>
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* 1 = Mother refused  2 = Staff/Provider forgot  3 = Staff/Provider discretion  4 = Mother did not attend visit  5 = Other (Explain)
APPENDIX D

PRE/POST IMPLEMENTATION SURVEY
1. Please identify your professional role.
   a.) Provider
   b.) Nurse

2. I feel like screening mothers for postpartum depression is valuable to my practice.
   a.) Strongly Agree
   b.) Agree
   c.) Neutral
   d.) Disagree
   e.) Strongly Disagree

3. I feel confident screening mothers for postpartum depression utilizing a validated screening tool.
   a.) Strongly Agree
   b.) Agree
   c.) Neutral
   d.) Disagree
   e.) Strongly Disagree
4. I feel confident in my ability to counsel and educate mothers on postpartum depression.
   a.) Strongly Agree
   b.) Agree
   c.) Neutral
   d.) Disagree
   e.) Strongly Disagree

5. I feel confident in my ability to provide mothers with resources for postpartum depression.
   a.) Strongly Agree
   b.) Agree
   c.) Neutral
   d.) Disagree
   e.) Strongly Disagree

6. I feel like adopting a postpartum depression screening guideline as a standard in my practice is feasible.
   a.) Strongly Agree
   b.) Agree
   c.) Neutral
   d.) Disagree
   e.) Strongly Disagree
**The following questions will only be included on the post-implementation survey:**

7. The education you received prior to implementation of postpartum depression screening guidelines was informative and helpful.
   a.) Strongly Agree
   b.) Agree
   c.) Neutral
   d.) Disagree
   e.) Strongly Disagree

8. The resources given to you prior to implementation of these postpartum depression screening guidelines were informative and helpful.
   a.) Strongly Agree
   b.) Agree
   c.) Neutral
   d.) Disagree
   e.) Strongly Disagree

9. I felt confident administering the Edinburgh Postpartum Depression Scale to patient mothers.
   a.) Strongly Agree
   b.) Agree
   c.) Neutral/Not Applicable
d.) Disagree

e.) Strongly Disagree

10. I felt confident interpreting the results of the Edinburgh Postpartum Depression Scale.

   a.) Strongly Agree
   b.) Agree
   c.) Neutral/Not Applicable
   d.) Disagree
   e.) Strongly Disagree
   f.) Strongly Disagree

11. I feel like utilizing these guidelines required a significant amount of time.

   a.) Strongly Agree
   b.) Agree
   c.) Neutral
   d.) Disagree
   e.) Strongly Disagree

12. I feel like utilizing these guidelines required a significant amount of effort.

   a.) Strongly Agree
   b.) Agree
   c.) Neutral
   d.) Disagree
   e.) Strongly Disagree
13. This screening tool was easy for mothers to complete.
   a.) Strongly Agree
   b.) Agree
   c.) Neutral
   d.) Disagree
   e.) Strongly Disagree

14. Please share any suggestions/concerns/ideas below:
APPENDIX E

INSTITUTIONAL REVIEW BOARD APPROVAL
TO: Ryann Popa and Susan Luparell
FROM: Mark Quinn, Chair
DATE: August 23, 2018
RE: "A Pilot Implementation of Postpartum Depression Screening Guidelines in the Pediatric Primary Care Setting" [R082318-EX]

The above research, described in your submission of August 22, 2018, is exempt from the requirement of review by the Institutional Review Board in accordance with the Code of Federal regulations, Part 46, section 101. The specific paragraph which applies to your research is:

(b) (1) Research conducted in established or commonly accepted educational settings, involving normal educational practices such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

(b) (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects’ responses outside the research could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects’ financial standing, employability, or reputation.

(b) (3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if: (i) the human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

(b) (4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available, or if the information is recorded by the investigator in such a manner that the subjects cannot be identified, directly or through identifiers linked to the subjects.

(b) (5) Research and demonstration projects, which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs.

(b) (6) Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed, or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the FDA, or approved by the EPA, or the Food Safety and Inspection Service of the USDA.

Although review by the Institutional Review Board is not required for the above research, the Committee will be glad to review it. If you wish a review and committee approval, please submit 3 copies of the usual application form and it will be processed by expedited review.
Subject Consent Form for Participation in Human Research at Montana State University

A Pilot Implementation of Postpartum Depression Screening Guidelines in the Pediatric Primary Care Setting

Pediatric Provider/Nurse Consent

Investigator: Ryann Popa, RN, DNP-FNP student

Introduction
You are being asked to participate in a DNP capstone project aiming to evaluate the pilot implementation of routine postpartum depression screening guidelines in the pediatric setting. Your feedback will help us gain information on the feasibility and value of implementing postpartum depression screening guidelines into routine practice.

You were selected as a possible participant because you are a pediatric provider or nurse working with the postpartum patient population in Great Falls, Montana. Those excluded are individuals who are not currently working with postpartum women either directly or indirectly during well-child examinations, or those who wish not to participate. We ask that you read this form and ask any questions that you may have before agreeing to participate in this project.

Purpose of Project
The purpose of this project is to evaluate the implementation of routine postpartum depression screening in the pediatric setting. Ultimately, this research may be presented as a Doctoral of Nursing Practice Project in a presentation, paper, and published in a nursing journal.

Description of the Project Procedures
If you agree to participate in this project, you will be asked to fill out a survey and participate in a short taped interview. Participation is voluntary and you can choose to not answer any questions you do not want to answer and/or you can stop at any time.

Risks/Discomforts of Participating in this Project
There are no foreseen risks involved in participating in this project.

Benefits of Being in the Project
You may discover information that will be valuable to your practice.

Source of Funding of Project: NA

Confidentiality
Your participation is anonymous. We will not be collecting or retaining any information about your identity.

Payments
No payments or compensation is involved in the participation of this project. There is no cost to you as a participant.
Right to Ask Questions and Report Concerns

You have the right to ask questions about this project and to have those questions answered by me before, during or after the project is implemented. If you have any further questions about the project, at any time feel free to contact me, Ryann Popa at Ryanncpopa@gmail.com or by telephone at (406) 209-4380. If you like, a summary of the results of the project will be sent to you. If you have any other concerns about your rights as a participant that have not been answered by the investigator, you may contact Montana State University Institutional Review Board via telephone (406) 994-6783 or mquinn@montana.edu.

______________________________________________________________

AUTHORIZATION:

I have read the above and understand the discomforts, inconvenience and risk of this project. I, ______________________, agree to participate in this project. I understand that I may later refuse to participate and that I may withdraw from the project at any time. I have received a copy of this consent form for my own records.

Signed:_____________________

Investigator:__________________

Date:_____________________

APPROVED
MSU IRB
08/23/2018
Date approved
APPENDIX G

PATIENT EDUCATION
Postpartum Depression

- What are the postpartum blues?
- How long do the postpartum blues usually last?
- What is postpartum depression?
- When does postpartum depression occur?
- What causes postpartum depression?
- If I think I have postpartum depression, when should I see my health care provider?
- How is postpartum depression treated?
- What are antidepressants?
- Can antidepressants cause side effects?
- Can antidepressants be passed to my baby through my breast milk?
- What happens in talk therapy?
- What are the types of talk therapy?
- What can be done to help prevent postpartum depression in women with a history of depression?
- What support is available to help me cope with postpartum depression?
- Glossary

What are the postpartum blues?
About 2–3 days after childbirth, some women begin to feel depressed, anxious, and upset. They may feel angry with the new baby, their partners, or their other children. They also may
- cry for no clear reason
- have trouble sleeping, eating, and making choices
- question whether they can handle caring for a baby
These feelings, often called the postpartum blues, may come and go in the first few days after childbirth.

How long do the postpartum blues usually last?
The postpartum blues usually get better within a few days or 1–2 weeks without any treatment.

What is postpartum depression?
Women with postpartum depression have intense feelings of sadness, anxiety, or despair that prevent them from being able to do their daily tasks.

When does postpartum depression occur?
Postpartum depression can occur up to 1 year after having a baby, but it most commonly starts about 1–3 weeks after childbirth.
What causes postpartum depression?
Postpartum depression probably is caused by a combination of factors. These factors include the following:

- Changes in hormone levels—Levels of estrogen and progesterone decrease sharply in the hours after childbirth. These changes may trigger depression in the same way that smaller changes in hormone levels trigger mood swings and tension before menstrual periods.
- History of depression—Women who have had depression at any time—before, during, or after pregnancy—or who currently are being treated for depression have an increased risk of developing postpartum depression.
- Emotional factors—Feelings of doubt about pregnancy are common. If the pregnancy is not planned or is not wanted, this can affect the way a woman feels about her pregnancy and her unborn baby. Even when a pregnancy is planned, it can take a long time to adjust to the idea of having a new baby. Parents of babies who are sick or who need to stay in the hospital may feel sad, angry, or guilty. These emotions can affect a woman’s self-esteem and how she deals with stress.
- Fatigue—Many women feel very tired after giving birth. It can take weeks for a woman to regain her normal strength and energy. For women who have had their babies by cesarean birth, it may take even longer.
- Lifestyle factors—Lack of support from others and stressful life events, such as a recent death of a loved one, a family illness, or moving to a new city, can greatly increase the risk of postpartum depression.

If I think I have postpartum depression, when should I see my health care provider?
If you think you may have postpartum depression, or if your partner or family members are concerned that you do, it is important to see your health care provider as soon as possible. Do not wait until your postpartum checkup.

How is postpartum depression treated?
Postpartum depression can be treated with medications called antidepressants. Talk therapy also is used to treat depression, often in combination with medications.

What are antidepressants?
Antidepressants are medications that work to balance the chemicals in the brain that control moods. There are many types of antidepressants. Drugs sometimes are combined when needed to get the best results. It may take 3–4 weeks of taking the medication before you start to feel better.

Can antidepressants cause side effects?
Antidepressants can cause side effects, but most are temporary and go away after a short time. If you have severe or unusual side effects that get in the way of your normal daily habits, notify your health care provider. You may need to try another type of antidepressant. If your depression worsens soon after starting medication or if you have thoughts of hurting yourself or others, contact your health care provider or emergency medical services right away.

Can antidepressants be passed to my baby through my breast milk?
If a woman takes antidepressants, they can be transferred to her baby during breastfeeding. The levels found in breast milk generally are very low. Breastfeeding has many benefits for both you and your baby. Deciding to take an antidepressant while breastfeeding involves weighing these benefits against the potential risks of your baby being exposed to the medication in your breast milk. It is best to discuss this decision with your health care provider.

What happens in talk therapy?
In talk therapy (also called psychotherapy), you and a mental health professional talk about your feelings and discuss how to manage them. Sometimes, therapy is needed for only a few weeks, but it may be needed for a few months or longer.

What are the types of talk therapy?
You may have one-on-one therapy with just you and the therapist or group therapy where you meet with a therapist and other people with problems similar to yours. Another option is family or couples therapy, in which you and your family members or your partner may work with a therapist.

What can be done to help prevent postpartum depression in women with a history of depression?
If you have a history of depression at any time in your life or if you are taking an antidepressant, tell your health care provider early in your prenatal care. Ideally, you should tell your health care provider before you become pregnant. Your health care provider may suggest that you begin treatment right after you give birth to prevent postpartum depression. If you were taking antidepressants before pregnancy, your health care provider can assess your situation and help you decide whether to continue taking medication during your pregnancy.
What support is available to help me cope with postpartum depression?

Support groups can be found at local hospitals, family planning clinics, or community centers. The hospital where you gave birth or your health care provider may be able to assist you in finding a support group. Useful information about postpartum depression can be found on the following web sites:

- National Women’s Health Information Center
  http://www.womenshealth.gov/mental-health/illnesses/postpartum-depression.html
- Postpartum Support International
  www.postpartumsupport.net
- Medline Plus

Glossary

**Antidepressants:** Medications that are used to treat depression.

**Cesarean Birth:** Birth of a baby through surgical incisions made in the mother’s abdomen and uterus.

**Estrogen:** A female hormone produced in the ovaries.

**Hormone:** A substance made in the body by cells or organs that controls the function of cells or organs. An example is estrogen, which controls the function of female reproductive organs.

**Postpartum Blues:** Feelings of sadness, fear, anger, or anxiety occurring about 3 days after childbirth and usually ending within 1–2 weeks.

**Postpartum Depression:** Intense feelings of sadness, anxiety, or despair after childbirth that interfere with a new mother’s ability to function and that do not go away after 2 weeks.

**Progesterone:** A female hormone that is produced in the ovaries and that prepares the lining of the uterus for pregnancy.

If you have further questions, contact your obstetrician–gynecologist.

FA091: Designed as an aid to patients, this document sets forth current information and opinions related to women’s health. The information does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to the institution or type of practice, may be appropriate.

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