

SCREENING MOTHERS FOR POSTPARTUM DEPRESSION:
A GUIDE FOR PEDIATRIC AND OBSTETRIC ADVANCED PRACTICE NURSES

By

HANNAH MARIE COLLINS-LEWIS

A Thesis Submitted to The Honors College
In Partial Fulfillment of the Bachelors degree
With Honors in
Nursing

THE UNIVERSITY OF ARIZONA

DECEMBER 2014

Approved by:



Dr. Melissa Goldsmith
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ABSTRACT

Postpartum depression (PPD) is a prominent mental health issue in 10-15% of mothers after childbirth. Untreated PPD has a large impact on the family unit, especially the children, and can result in affected psychosocial development, psychiatric disorders, or violent behavior. The following symptoms may be present: loss of interest in activities, sleep and appetite disturbances, negative feelings, and thoughts of self-harm. Several themes have emerged regarding the lack of screening and intervention by primary care providers. This guide will explore those themes and discuss what pediatric/obstetric nurse practitioners can do to improve screening and detection rates. These practitioners are among the first postpartum mothers and families will come into contact with. Therefore, these practitioners have an opportune moment to provide early screening, detection, and intervention. This can be done correctly and successfully via clinical indicators and the Edinburgh Postnatal Depression Scale (EPDS). By advancing education and training, along with having referrals and resources on-hand, practitioners have a better opportunity at providing affected postpartum women with quality and timely healthcare.

CHAPTER 1

Introduction

Statement of Purpose

The purpose of this project is to examine existing research articles and studies relating to postpartum depression (PPD) to design an evidence-based educational guide for advanced practice nurses (APNs) within the pediatric and obstetric settings. PPD is a prevalent mental health issue that can affect any mother during the first year postpartum, yet it often goes under or misdiagnosed (Fitelson, Kim, Baker, & Leight, 2011). The two professionals of interest include the pediatric nurse practitioner (PNP) and the obstetric APNs (including the obstetric nurse practitioner and certified nurse midwives). It is widely recognized that PNPs are among the first health care professionals a mother sees shortly after her infant is born for the well-child check-up. However, a large number of PNPs have not received adequate training or feel confident in their abilities to identify depressive symptoms in mothers enough to make proper referrals. To add to this issue, postpartum mothers also are to schedule a follow up appointment after delivery with the obstetric APN, but in many cases women forgo the appointments for various reasons. Additionally, some obstetric APNs may not be compliant with formal screening tools, such as the Edinburgh Postnatal Depression Scale despite enhanced training. This gap in the health care field could be decreased with adequate training designed specifically for both PNPs and obstetric APNs. Unfortunately, little of research has been done to determine whether training interventions for these APNs has been successful in increased detection and referral of those affected with PPD.

This proposed educational guide will provide APNs with the rationale of why it is important to screen all postpartum mothers. It will also provide information about clinical indications and signs and symptoms of PPD, how to utilize the Edinburgh Postnatal Depression

Scale (EPDS), and how to refer women to a mental health professional. The guide will include how to incorporate screening into their practice without costing both the APNs, mothers, and patients additional time. Implementation and evaluation recommendations will also be found in this proposed guide. But, before APNs can begin to tackle the issue of PPD screening and detection, they must understand all aspects of postpartum depression in mothers.

Significance of the Problem

Many studies have shown that postpartum depression affects around 15% of mothers (Pearlstein, Howard, Salisbury, & Zlotnick, 2009). Childbirth and motherhood are generally one of the most positive changes a woman experiences in her life. A woman's life becomes a balancing act, and she has to manage caring for an infant, her family, household duties and the possibility of return to work with only a short maternity leave. While under normal circumstances this is difficult, a woman suffering from depression may feel it is impossible. Struggling with depression is not only a challenge for a new mother, but it negatively affects the family unit as well.

PPD has shown to impact the family unit, specifically the offspring, in many negative ways. Generally, a child of a depressed mother may have affected cognitive, social and emotional development (O'Hara, 2009). For infants and toddlers, high incidences of excessive crying or colic, sleeping difficulties, and issues with temperament have all been associated with untreated PPD (Pearlstein et al., 2009). During childhood and adolescence, an individual may experience violent behavior, externalizing disorders, and psychiatric and medical disorders (Pearlstein et al., 2009). While these conditions may be difficult to treat during their occurrence, the best approach is to prevent or treat PPD from happening before it can begin to affect the child.

Postpartum Depression and other Postpartum Mood Disorders

Doucet, Dennis, Letourneau & Robertson-Blackmore (2009) stated women are more likely to be admitted to a psychiatric unit after childbirth than any other time during their lives. Doucet et al. (2009) divides postpartum mental illnesses into three categories: postpartum blues, postpartum depression (PPD) and postpartum psychosis (PP). PPD is usually marked by a nonpsychotic depressive episode, whereas manic or affective psychotic episodes indicate PP (Doucet et al., 2009). While it is more common for women with a previously diagnosed history of depression or bipolar disorder to develop a form of postpartum mental illness, it is not always the case (Doucet et al., 2009).

Table 1.

Defining and differentiating postpartum mood disorders

Condition	Symptoms	Risk Factors	Onset	Prevalence
Postpartum Blues/ “Baby Blues”	Mood swings, mild elation, irritability, tearfulness, fatigue, confusion	Antenatal depression, previously experiences with depression unrelated to pregnancy, previous premenstrual dysphoria	Within 10 days after childbirth	15-85 %
Postpartum Depression	Loss of interest or pleasure in activities, sleep disturbances, appetite disturbance, loss of energy, feelings of worthlessness or guilt, diminished concentration, thoughts of suicide	Psychosocial (depression and/or anxiety during pregnancy, stressful life events, poor social support, marital conflict, low income, immigrant status, young maternal age), differential sensitivity to hormonal fluctuations, sleep disturbances	4-6 weeks after childbirth	10-15%
Postpartum Psychosis	Confused thinking, mood swings, delusions, paranoia, disorganized behavior, poor judgment, impaired functioning, hallucinations	Previous episode of postpartum psychosis, previous hospitalization for manic or psychotic episode, recent discontinuation of mood stabilizers, primiparity,	2 weeks after childbirth	1 in 500

obstetric complications, sleep deprivation, family history of bipolar disorder or psychosis

Adapted from Pearlstein, Howard, Salisbury, and Zlotnick (2009)

PPD is defined in the psychiatric field as a major depressive disorder with a specifier of postpartum onset within a month after delivery (Pearlstein et al., 2009). While there is no exact reason some women develop PPD, there is belief it relates to the fluctuation and over-sensitivity to estradiol and progesterone (Pearlstein et al., 2009). Specifically, the decrease in progesterone produces an insomnia-like effect on mothers, promoting a vulnerable state of mind. The insomnia in combination with sleep disturbances brought on by the infant can contribute to maternal depression (Pearlstein et al., 2009). Other theories revolve around the involvement of the serotonin system and the possibility of altered neural processing in depressive mothers.

However, PPD is not the only mood disorder women suffer from during the postpartum period (Refer to *Table 1*). A more common occurrence for mothers are the postpartum blues or “baby blues”. Postpartum blues occurs within ten days after a mother gives birth and occurs in 15-85% of women (Pearlstein et al., 2009). This condition is generally accepted as such a common occurrence that intervention is rarely needed, and it will resolve itself. However, postpartum blues can also be seen as a risk factor for later developing PPD (Pearlstein et al., 2009).

Another mood disorder is postpartum psychosis and occurs in approximately one of five hundred women. Postpartum psychosis has rapid onset, manifesting as soon as 2-4 weeks after childbirth (Pearlstein et al., 2009). This condition is considered to be a psychiatric emergency, usually requiring hospitalization in an inpatient psychiatric unit. Women who develop this condition are at a higher risk for committing infanticide, neonaticide (killing an infant within 24

hours of birth), and suicide (Pearlstein, et al., 2009). This can be alarming to mothers, and they should be reassured that thoughts of harm or acts of infanticide rarely are acted upon. Many studies have found preexisting bipolar disorder to be a risk factor for developing postpartum psychosis (Pearlstein et al., 2009)

The Clinical Problem: Unrecognized and Untreated PPD in Women

While prevention and treatment seems obvious, the true problem lies with the detection of depressive symptoms during the postpartum period. Pearlstein et al. (2009) describes postpartum depression as one of the most under recognized and under treated psychiatric disorders prevalent during the childbearing age range (18-35 years old). Many studies have sought to understand the reasoning why PPD is so often under diagnosed or identified. Some of the themes evident in research include primary care providers' discomfort with psychiatric disorders, time limitations, misunderstanding on how maternal depression affects child development, and lack of knowledge and confidence to diagnose depressive symptoms (Pearlstein et al., 2009). These are the persistent barriers clinicians identify in medical settings. However, it is also important to recognize that a woman may be reluctant to disclose depressive symptoms due to feelings of fear, inadequacy, and guilt. Despite those feelings, a primary health care provider (PHCP) should be able to recognize clinical indicators of depressive mood, trigger words spoken by the mother, and implement routine screening instruments into their practice.

Therefore, this guide proposes that PNPs and WHNPs/CNMs collaborate to increase detection of depressive symptoms in postpartum mothers. A major reason these providers would be ideal for intervening, is due to the frequency of visits. In most generic of cases, a mother would take her infant in for well-child check-ups at the 1-2 week, 1 month, 2 month, 4 month, 6 month, 9 month and 1 year periods. In addition, the mother would be seen by her WHNP/ CNM at approximately 1-2 visits post-delivery, increasing interaction between mothers and health

professionals. With an approximate total of 9 visits, there should not be any unscreened mothers during the first year after childbirth. This is why these APNs are the ideal providers for improving screening and intervention of depressive symptoms. For successful collaborative care, by using open dialogue between providers and combinations of clinical indicators by PNPs and formal screenings by WHNPs/CNMs, the incidence of screened mothers has the potential to improve drastically. However, these professionals require the education and training necessary to adequately identify and provide care for affected mothers. These requirements include teaching PNPs about clinical indicators, whilst encouraging WHNPs/ CNMs to utilize a formal screening tool, specifically the Edinburgh Postnatal Depression Scale (EPDS).

Screening for Postpartum Depression: The Edinburgh Postnatal Depression Scale

In 1987, Scottish researchers Cox, Holden, and Sagovsky (1987) developed a screening tool to help primary health care professionals with PPD detection. The Edinburgh Postnatal Depression Scale is a ten item questionnaire that can be scored from zero to thirty. It generally accepted that score of ten or higher indicates probable depression, which requires counselling and/or referral to a mental health care provider (Cox, Holden, and Sagovsky, 1987). There are four answers for each question, each answer signifying a score according to increased severity of the symptoms (e.g., 0 to 3). After completion, a provider can tally the scores and determine whether intervention is needed. Women are instructed to reflect upon the past week and check the most appropriate answer to correlate with each statement. The statements range from positive (“I have been able to laugh and see the funny side of things”) to negative (“The thought of harming myself has occurred to me”) (Cox, Holden, & Sagovsky, 1987).

Since the development and introduction of the screening tool, many practices are currently using the EPDS as the instrument of choice. The reason behind this is due to the limitations of previously used tools in perinatal clients, such as the State of Anxiety and

Depression (SAD) self-report scale, the Beck Depression Inventory (BDI), and the General Health Questionnaire (GHQ) (Cox, Holden, & Sagovsky, 1987). Cox, Holden and Sagovsky (1987) tested the validity and reliability of EPDS and found it to be satisfactory, promoting that their tool was sensitive to the changes of depressive symptoms severity over time, and acceptable to the mothers due to the ability to complete it within five minutes. Another benefit was that any health care professional, whether a nurse or general practitioner, could provide the questionnaire, easily interpret the score, and have a fairly reliable indicator of the severity of symptoms (Cox, Holden, & Sagovsky, 1987). This article established evidence that supports the usage of EPDS in primary care settings.

Summary

Childbirth is a mentally and physiologically stressful event that can drastically alter a woman's mental health. Many studies have indicated that nurse practitioners are appropriate health care professionals to assess, screen and counsel women who are experiencing PPD (Doucet et al., 2009). Many women are often in contact with nurse practitioners during the entire perinatal period, therefore providing an excellent opportunity for screenings and interventions. Studies have shown that women who receive intervention and treatment within the first twelve weeks of symptom onset are more likely to have a quicker recovery than those who prolong intervention, are misdiagnosed or have not been screened (Doucet et al., 2009). Therefore, it is essential for both APNs to have the ability to assess for PPD and to assist in preventing further complications for mother, father and infant. APNs should be provided with the proper training to informally and formally screen for PPD, detect depressive symptoms, and have the confidence to refer the mother to mental health care providers in a collaborative care effort.

CHAPTER 2

Review of Literature

The purpose of this chapter is to review recent research and other evidence to explore the detection, diagnosis and treatment of postpartum depression (PPD) in various primary care settings in order to construct an educational guide for PNP's and WHNPs/CNMs. The majority of the articles pertain to the role of the primary health care provider, such as general practitioners, nurse practitioners, and nurses in screening. It will also delve into the mothers' experiences with primary care and management of PPD. Additionally, this chapter will examine the validity and reliability of the Edinburgh Postnatal Depression Scale (EPDS), a questionnaire commonly utilized to detect depressive symptoms. The review contains articles drawn from the online databases Ovid MEDLINE, PubMed, and Cumulative Index to Nursing and Allied Health Literature (CINAHL). From these databases, relevant studies and reviews were chosen from a variety of health care disciplines from the years 1987 to 2014 using keywords such as postpartum depression, maternal, nurse practitioner, Edinburgh Postnatal Depression scale, and primary care.

Role of Health Care Providers and Postpartum Depression

In regards to a mental health disorder, such as postpartum depression, many believe it is a task designated for mental health care providers. However, in a case of PPD affecting a mother, providers from many clinical areas can get involved such as obstetric, mental health and pediatric. While providers of obstetrics and mental health are understandably involved, some may wonder why pediatric professionals are less involved in the screening of PPD.

Often, the first health care professional a woman sees after being discharged from the hospital is her infant's primary health care provider (PHCP) at the well-child check-ups. This is an opportune moment for the pediatric nurse practitioner (PNP) to screen and refer a woman

with depressive symptoms for further evaluation, diagnosis and treatment. However, only a small number of PNPs are actually screening mothers during the infant's well-child visit. While there is little evidence regarding PPD screening and PNPs, there is sufficient amount of articles dedicated to exploring reasons why other pediatric health care providers are reluctant and uncertain how to care for mothers with depressive symptoms.

In regards to screening provided by the women's health nurse practitioner and certified nurse midwives, this screening should be formalized since these providers have been trained during their education and certification. WHNPs are the proper individual to provide formalized screening in the form of the EPDS due to scope of practice. However, compliance to formalized screenings is not what it should be, furthering the need for intervention and educational guides. Again, the lack of evidence to support this claim complicates the issue of actual need versus suspected need, but will be explored in favor of necessity for intervention.

A descriptive cross-sectional study, by Connelly, Baker, Hazen, and Mueggenborg (2007) was constructed to examine the practices of ninety-eight pediatric health care providers regarding the detection and treatment of maternal depression. These providers consisted of pediatricians (providers) and advance practice nurses (APN) from Southern California. In their study, over 80% of both types of PHCPs agreed that recognizing maternal depression was their responsibility, however, only 11% felt it was their responsibility to treat it, feeling treatment was not within their scope of practice (Connelly et al., 2007). Often, the majority of providers relied on clinical cues, such as behavior, to determine if depressive symptoms were present and only 12% actually asked mothers on a routine basis if they felt depressed (Connelly et al., 2007). About half of providers reported assessing the mother's risk for suicide, the majority (63%) doing so by directly asking, the rest by indirectly asking or a mother volunteering information. Almost 60% of the providers who assessed for suicide also assessed for other psychosocial

problems (e.g., support network, somatic symptoms, and/or functional impairment) (Connelly et al., 2007). In comparison with pediatricians, the APNs were more likely to (73%) assess for suicidal ideation. In fact, 90% of APNs assessed for support networks and somatic symptoms, with 70% of APNs assessing for functional impairment (Connelly et al., 2007). These statistics suggest that APNs were more likely to investigate and inquire about depressive symptoms versus other medical care providers. Furthermore, nine percent of pediatricians used formal diagnostic criteria, but only three percent of all pediatricians used a screening questionnaire. The remaining providers made a diagnosis simply on the presentation of one or two depressive symptoms. These statistics vary from the APNs, with the majority using clinical judgment, a small number utilizing a screening tool and none reported using a formal diagnostic tool. Both APNs and providers felt the severity of depression in their patients was moderately severe. In terms of intervention, 80% of all providers referred the mothers to a mental health provider, a primary care provider, or emergency room for treatment of their depressive symptoms (Connelly et al., 2007). About 75% of total PHCPs felt they needed to change their practice in identifying and managing maternal depression (Connelly et al., 2007). Again, most PHCPs felt they needed to ask patients about PPD more frequently and should consult with mental health care providers.

While recognition and management can be difficult, often there are other barriers to getting mothers the help they need. Three themes within the Connelly et al. (2007) study related to barriers, including inadequate time, focusing the appointment on the medical needs of the child, and the feeling of incomplete training to effectively diagnose or counsel depressive mothers. In fact, half of all PHCPs felt confident in diagnosing depression, but only 16% felt confident in managing depression. Other barriers that were perceived by APNs included insurance, unavailable mental health resources, unaffordable mental health care providers, and the paperwork and authorization process to be difficult. These barriers and varying levels of

confidence only make managing depression more difficult for both the PHCP and the mother. Having the time, confidence, and resources to identify and manage postpartum depression is challenging for all types providers. The Connelly et al. (2007) study exemplifies the need for more education among both pediatricians and advanced nurse practitioners, but more so proves the abilities of nurse practitioners to screen and refer women to further services while remaining within their scope of practice regarding usage of formalized screening tools, such as the EPDS.

Chew-Graham et al. (2008) conducted a qualitative, trial study randomly selecting nineteen general practitioners (GP) and fourteen health visitors (community nurses) for their views on their role in detection and management of PPD. Nine primary care trusts from various locations in the United Kingdom were selected at random to be a part of the study. In-depth interviews were conducted to explore topics such as models of PPD, diagnosis and management, and relationships between professionals and patients. The interviews were guided, however the questions were open-ended to encourage free response. Information collected lead researchers to observe several themes. One theme related to making the diagnosis of PPD in their patients. Both GPs and health visitors felt PPD was a social reaction to birth (Chew-Graham et al., 2008). These providers had feelings of ambivalence regarding diagnosis and solely relied on clinical indicators of depression rather than actually exploring the mother's emotions through open discussion (Chew-Graham et al., 2008).

Another interesting theme resulting from the Chew-Graham et al. (2008) study was how GPs and health visitors thought labeling PPD would affect the management of the condition. GPs were often reluctant to label a mother's condition as PPD, and would rather treat in a non-medical approach, whereas health visitors believed giving a label of depression to the women would be beneficial, giving legitimacy to symptoms (Chew-Graham et al., 2008). However,

health visitors also thought if the label depression was given, women would think a visit to their GP and antidepressants were imminent. Another theme explored was the perception of others' roles in managing PPD. While GPs expressed the potential importance of having health visitors manage PPD diagnosed women, they also observed some unwillingness from the health visitors regarding management (Chew-Graham et al., 2008). Health visitors saw themselves as an alternative approach to the possible biomedical approach carried out by the GPs.

The last theme derived from this study related to the health care providers sharing their view on whose responsibility it is to manage PPD. Both health care provider groups felt they both played a role in managing PPD, but lacked confidence in labeling women as depressed (Chew-Graham et al., 2008). GPs view PPD as a primary care problem, treatable with a biomedical approach, whereas health visitors felt less confident in managing women, often believing referral to a mental health professional was more ideal (Chew-Graham et al., 2008). In summary, both groups of health care providers play a role in managing PPD, but further education is needed on identifying symptoms, alternative treatments, referrals, and understanding their role in managing PPD. While the interviews proved to be informational regarding GP and health visitor attitudes and views, the findings are not applicable to primary care trusts who have a developed or different plan when identifying and managing PPD and is therefore not generalizable to a larger population. It is important to recognize the different approaches general practitioners and nurse practitioners take in identifying and managing postpartum depression. Most intriguingly, nurse practitioners are more willing to make referrals, rely on clinical cues for correct symptomology, and use alternative treatment methods that coincide with most mothers' wishes for a non-pharmaceutical therapies.

A cross-sectional study by Heneghan, Johnson Silver, Bauman, and Stein (2000) was designed to determine whether pediatricians were able to recognize depressive symptoms in their

patient's mothers during a clinic visit. Unique about this study, was the methodology. Researchers visited a general pediatric clinic and received completed questionnaires from two populations: mothers with children ages six months to three years for health maintenance or a minor acute illness, and the pediatric health care providers (including pediatricians, pediatric trainees, and nurse practitioners) (PHCP). The mothers group was questioned about depressive symptoms via the Psychiatric Symptom Index (PSI). The results demonstrated a significant number of women having depressive symptoms, approximately 40% of the 214 women given the questionnaire and the later assessed by a PHCP (Heneghan et al., 2000). These mothers' PSI scores were equal to or greater than 20, a score associated with high depressive symptoms. During the clinic visit, the PHCPs were asked to assess both mother and child functioning, documenting any indications of possible maternal depressive symptoms. Interestingly, the PHCPs were unable to correctly identify these women. They were only able to correctly identify twenty-five of the high-scoring women. Instead, PHCPs falsely recognized 104 of 128 (81%) mothers as having significant depressive symptoms when the women scored less than 20 on the PSI (Heneghan et al., 2000). A reason for this mistake could possibly be attributed to the PHCPs tendency to identify mothers less than thirty years old, single, and receiving public assistance (Heneghan et al., 2000). Another interesting aspect was the ability of pediatricians to better detect symptoms than the pediatric trainees or nurse practitioners. Overall, a major theme from this study was the inaccuracy of PHCPs when detecting depressive symptoms in their patient's mothers indicating the need for continued and updated education for nurse practitioners regarding postpartum depression.

Yawn et al. (2012) designed a randomized study to determine whether implementing a practice-based training program would be effective in screening, diagnosing, and managing depression in postpartum women. Twenty-eight practices were selected, and 1,897 women

completed the study were between five and twelve weeks postpartum. Half of the practices received the intervention, which included access to education and tools for detecting and managing postpartum depression. The control group only received a thirty minute presentation on postpartum depression. The intervention practices who received training were able to detect women's depressive symptoms at a higher rate (29% to 24%) when compared to the usual-care practices (Yawn et al., 2012).

In regards to the intervention practices, Yawn et al. (2012) found that women were more likely to receive a diagnosis and referral to a psychiatric physician. These results suggest that the practice-training program was indeed effective in managing women with postpartum depression symptoms in the primary care practice. However, there was a limitation in that there was no opinion about effectiveness from the health care providers or women screened. It would be more beneficial if the study conducted interviews with providers and women to understand how they felt about the training process or management of depression. Regardless, this study was important in showing how effective training can be in the postpartum practice and how it guides care and referral.

A randomized study by Chaundron, Szilagyi, Kitzman, Wadkin, and Conwell (2004) was conducted to assess the feasibility of screening and detecting the prevalence of depressive symptoms amongst mothers attending their child's well-child visit. Chaundron et al. (2004) applied a before and after design related to whether PPD symptoms were detected and social work referrals made before and after a universal screening tool was used. The screening tool used was the Edinburgh Postnatal Depression Scale (EPDS). Two hundred twenty infant medical records were obtained, 110 medical records for before screening, and 110 for after screening. The majority of infant medical records obtained were of the Hispanic or African American race and from an urban, poor population. In regards to determining feasibility, the second cohort of

medical records (the after screening cohort) was assessed only. Of the 223 well-child visits, only 46% visits had an EPDS form. For prevalence, only completed EPDS forms were evaluated. Chaundron et al. (2004) regarded a score of 10 or greater on the EPDS to be their determinant of prevalence. In 90 completed forms, 21% of women met their criterion for depression.

The detection of depressive symptoms was higher in the second cohort, in which screening was implemented (Chaundron et al., 2004). Both cohorts were assessed for referrals made by health care providers to social workers for mental health purposes. Not surprisingly, the second cohort had more referrals (8 women) than the first cohort (only 1 woman) (Chaundron et al., 2004). The majority of women who followed through with the social work consult also had a score on the EPDS of greater than or equal to 10. However, another set of eight women with scores greater than or equal 10 were not referred at all (Chaundron et al., 2004).

Willingness to complete forms is another factor. With most mothers compliant, around 88% of completed forms were included in medical records (Chaundron et al., 2004). However, researchers were unable to assess for acceptability, another factor that should be examined in a future study. In addition, completing forms, totaling scores, and making the judgment to intervene and refer was a rapid process, time being an essential factor in a fast-paced pediatric practice. The study by Chaundron et al. (2004) demonstrates that using a screening tool in pediatric practices, such as the EPDS, is more helpful and accurate in detecting symptoms than relying on just clinical indicators alone. It was also suggested the increase in referrals was related to the increase in detection of symptoms when the EPDS was used. There were some limitations in that the opinion of the women and health care staff was not obtained, the information solely provided by the contents of the chart. The study was also conducted in one

pediatric practice in a poor, urban setting and the sample size was small, making the generalizability to other practices and populations unknown. Depressive symptoms can be recognized during well-child visits more successfully using a universal screening scale, such as the EPDS. However, varying state nursing practice acts may not agree with the usage of formal screening tools by pediatric nurse practitioners due to issues with scope of practice. Therefore, while the EPDS proves effective, the screening tool would best be utilized by the women's health nurse practitioner, and the reliance on clinical indicators stressed for PNPs. In any matter, pediatric providers play an important role in the recognition of depressive symptoms and the referral to mental health services. This study further advocates that while it can be difficult to implement screening during well-child visits, it is an achievable and recommended goal.

A cluster randomized trial by Brugha, Morrell, Slade, and Walters (2011) set out to determine if receiving care from trained health visitors (HV) would aid in preventing depression six to eighteen months postnatally. The British women selected for the study had to have shown signs or symptoms of depression at the time of selection to suggest whether intervention by trained HV would be effective or not. The women were screened using the Edinburgh Postpartum Depression Scale (EDPS). They were divided into two categories, those who displayed symptoms at six weeks and those who did not. The study consisted of 101 primary care teams with 1,474 women in the intervention group women and 767 women in the control group. The women with trained HVs and who scored below the EPDS threshold were less likely to have depressive symptoms at six months (Brugha, Morrell, Slade, & Walters, 2011). This suggests that trained HVs and early intervention, even in those who are not symptomatic, could apply to all women at risk and proposes a universal effect. In addition, it was discovered that there was a significant difference between simply adopting a screening policy and actually being trained to recognize depressive symptoms (Brugha, Morrell, Slade, & Walters, 2011). The

training the HVs underwent educated them to focus on not only the physical welfare of the child, but on the mother's mental well-being as well. Another interesting point, is women often found it beneficial knowing there is an opportunity for open discussion regarding their depressive symptoms with someone who is trained (Brugha, Morrell, Slade, & Walters, 2011). It was also reported that face-to-face discussion resulted in a more positive experience versus paper questionnaires alone. This study reinforces the concept of open discussion for better patient satisfaction as well as the need for trained health care professionals.

An important part of the trained health care professionals includes the women's health nurse practitioner. While it is obvious why WHNPs are vital in the care for postpartum women, there are various issues regarding screening and care for these individuals. A study by Rowan, Greisinger, Brehm, Smith, and McReynolds (2012) stated providers in obstetric and pediatric settings are failing to correctly identify cases of PPD. These researchers conducted a study on the potential benefits of implementing a systematic screening, referral, and monitoring program for peripartum women. Using a large multi-specialty medical organization as the background, researchers were able to give almost 2,200 new obstetric clients the EPDS tool and enter it into their electronic medical record (EMR). The use of a formal screening tool within the obstetric setting was a great success, but it also enabled researchers to gather quantitative information about the screened women. It was concluded that 412 women scored at 9 or above, while 102 women scored at 14 or higher (Rowan et al., 2012). As per the systematic approach, follow up phone calls were made to those mothers who scored a 14. The majority of women appreciated the phone call, but declined the need for further mental health interventions stating they felt the symptoms were a normal part of adjusting to motherhood (Rowan et al., 2012). In fact, only an approximate 18% conceded to recommendations to seek out behavioral health care options (Rowan et al., 2012). The study conducted by Rowan et al. (2012) demonstrates several

important considerations for women's health nurse practitioners. One consideration is the conjunctive use of EMRs and EPDS to better monitor compliance by both providers and mothers. EMRs also prove to be helpful in determining the outcomes of a systematic approach, including tracking of women with elevated EPDS scores and women who were recommended behavioral health interventions. Another consideration regards timeliness of the process. This clinic site delegated the follow-up phone calls to registered nurses, recognizing the time issue which faces all practitioners. Rowan et al., (2012) recognized that without a woman's willingness to seek behavioral health interventions, then increasing depression screening efforts are less impactful. In fact, Rowan et al. (2012) examined many articles where referrals were made but follow-through by postpartum women was dismal, such as found in the study by Flynn, O'Mahen, Massey, and Marcus (2006). Rowan et al. (2012) determines the lack of follow-through is reflected in various barriers, including: peer support preference, avoidance of pharmaceutical therapies, poor knowledge regarding resources, lack of child care, and the avoidance of stigmatization. This study exemplifies the ease of implementing systematic screening programs, including the use of EPDS tools, EMRs, and follow-up phone calls. However, it also highlights the struggles of patient compliance often facing women's health nurse practitioners.

Flynn, O'Mahen, Massey, and Marcus (2006) conducted a study regarding whether obstetric clinic-based interventions had any effect on perinatal depression. Flynn et al. (2006) discusses an upsetting truth that despite the prominence amongst postpartum women, PPD is inadequately detected and widely undertreated within the obstetric setting. The researchers were successful in gathering 1298 women for the study, with a 95% completing the EPDS form (Flynn et al., 2006). Among those screened with the EPDS, 16% scored at 10 or above, and of those women, 53% agreed to participate in the study. With such a successful compliance rate by

women, it was determined that EPDS screening is an ideal and integral part of the screening process. It was also noted that a majority of women with significant symptoms had not previously sought mental health care, nor had they during or after their pregnancy (Flynn et al., 2012). However, it was discovered that women's providers more often intervened and screened women at the first month visit, but were less likely to do so at the six week visit. These findings suggest that while women are compliant with screening, many do not follow-through with the recommendations of seeing a mental health provider. Additionally, there is questionable compliance among obstetric providers, indicating a need for further assessment behind their reasons for lack of follow-up screening.

Jones, Creedy, and Gamble (2012) conducted a study at the Australian College of Midwives, involving 815 members into their research. They sought to determine the knowledge the midwives had on antepartum depression regarding screening and management. A majority of midwives stated they had worked with women experiencing an antepartum or postpartum mood disturbance within the past year (Jones, Creedy, & Gamble, 2012). They also identified three main factors as barriers to quality care: time constraints, perceived reluctance by women to seek aid, and lack of supportive services (Jones, Creedy, & Gamble, 2012). An interesting finding related to the impact on midwives' work. Approximately 75% stated PPD increased their workload as well as cost of care (52.7%) (Jones, Creedy, & Gamble, 2012). Yet, only 69.1% of midwives screened women for depressive symptoms and only 54% of those midwives used the EPDS as the choice screening tool (Jones, Creedy, & Gamble, 2012). Despite the low usage of EPDS, the majority of midwives found it easy to implement, simple to interpret, and comfortable to explain to mothers. In a case study given to the participants, only two-thirds were able to correctly identify postpartum depression and that the case study mother required assistance of varying levels (Jones, Creedy, & Gamble, 2012). This study is applicable to this guide for

various reasons. It proves the hypothesis that women's health providers do not universally utilize the recommended screening tool, the EPDS. It exemplifies the barriers seen in multiple settings by both pediatric and women's health providers and demonstrates the lack of knowledge within women's health providers to confidently and correctly identify depressive symptoms despite previous schooling. Therefore, women's health nurse practitioners must receive ongoing education regarding proper screening of PPD, the benefits of universally using the EPDS, and encouraging maternal compliance with screening and referral practices.

While studies greatly suggest a need for PPD training programs for both pediatric and obstetric APNs, it is also important to understand how health care professionals perceive caring for women with postpartum mental health issues. McConachie and Whitford (2009) did that when they conducted a cross-sectional study measuring mental health nurses' experiences and attitudes towards women with severe mental illness during perinatal period. Sixteen Scottish registered mental health nurses (RMNs) were interviewed to gather insight on normalization, fear and anxiety, frustration and confidence (McConachie & Whitford, 2009). RMNs stated they saw no differences between perinatal and non-perinatal depression symptoms, but did report the context to be different when an infant was involved (McConachie & Whitford, 2009). Often, they felt fearful and anxious while caring for the infants of PPD mothers (McConachie & Whitford, 2009). Additionally, RMNs conveyed the lack of communication between professional groups resulted in frustration, but they did feel confident when working with known and trusted colleagues (McConachie & Whitford, 2009). These findings indicate that RMNs should be better educated about postpartum mental health to increase confidence and decrease fears related to caring for mentally ill postpartum mothers and their infants. It will also be helpful to establish clear protocols and guides within the clinical setting to improve professional

communication amongst the staff. While the study proved to be insightful on nurses' attitudes, the findings are not necessarily generalizable due to the small sample size.

Screening Effectiveness of Edinburgh Postnatal Depression Scale

The Edinburgh Postnatal Depression Scale (EPDS) can be easily used in a variety of primary care settings. However, some have questioned whether the EPDS is effective in detecting postpartum depressive symptoms over other types of screening tools. Many studies have been conducted to determine whether the EPDS is the most effective scale to use for this specific population of mothers.

Leung et al. (2010) conducted a study in Hong Kong to determine the effectiveness of using the EPDS to screen mothers at two months postpartum. A little over four hundred women participated, divided into an intervention and control groups. Both groups would receive PPD screening, however the intervention group received screening from the EPDS form, while the control group was screened via clinical assessment. Both types of screening techniques were given out or performed by maternal-child health (MCH) nurses. Nurses received training about PPD and counseling, instructed to counsel any woman who scored above a ten on the EPDS. After initial screening, women were reassessed at the child's six month check-up.

At the two month assessment, 30 women in the intervention group scored 10 or higher on the EPDS. At the sixth month assessment, only 13 of the 30 needed further counseling by MCH nurses or other members of the psychiatric team. These results differed from the control group. At two months, 51 women were diagnosed with probable PPD. Four months later, 23 of the original 51 were referred for counseling services. Overall, 29% of women in the intervention were determined to have probable PPD, while only 6% were identified in the control group. These statistics suggest EPDS screening is more effective in identifying depressive symptoms in

mothers versus relying on clinical assessments or indicators. It also demonstrates how important thorough training is for health care professionals.

A comparison study by Hanusa, Scholle, Haskett, Spardardo, and Wisner (2008) was designed to determine what screening instrument is more effective in recognizing depressive symptoms in 123 women. The three screening tools tested were the Edinburgh Postnatal Depression Scale (EPDS), the Postpartum Depression Screening Scale (PDSS), and the Patient Health Questionnaire (PHQ-9). The women were recruited six to eight weeks postpartum and given the instruments over the telephone. If a patient scored ten or greater on the EPDS and PDSS, and fourteen or greater on the PHQ-9, they were considered to have probable depressive symptoms and these numbers were used as a cut-off point. It was found that two to thirty-six percent of women had depressive symptoms (depending upon the instrument used). Only women who received home visits could be used to determine the accuracy of the screening tools. Of the three instruments, the EPDS was found to be significantly more accurate (with the used cut-off points) when compared to the PHQ-9 and PDSS. This suggests that the EPDS is the superior screening tool when used in a postpartum setting, and could be used up to six months after delivery.

Edmonson, Lamprini, Vlachos, Netsi, and Ramchandani (2010) recruited couples from various postpartum maternity wards to determine whether the EPDS was a sufficient screening tool in detecting paternal postpartum depression. Fathers from the United Kingdom agreed to fill out an EPDS form. Those with scores higher than 10 and few randomly selected fathers with scores less than 10 were invited for an interview with the researchers. In consenting couples, the mother was also given an EPDS form. One hundred ninety-two couples agreed to a home visit, the average weeks postpartum was 14.5 weeks. The interviews were conducted using the Structured Clinical Interview for DSM-IV and was semi-structured.

The most interesting finding was that fathers with depression scored considerably higher on the EPDS than the non-depressed fathers. In fact, 89.5% of depressed fathers and 78.2% of non-depressed fathers were classified correctly according to their EPDS score. This suggests an overall accuracy of 79.9%. These results imply that the EPDS can be an extremely valuable tool in the detection of depressive symptoms in postpartum fathers.

Howard et al. (2011) designed a study to investigate the prevalence, persistence, and correlation of suicidal thoughts in postpartum women. The EPDS was utilized, and if the women scored higher they were referred to home visits. During the home visits, the women were given an additional standardized psychiatric interview, the Clinical Interview Schedule-Revised version (CIS-R). Howard et al. (2011) hypothesized that suicidal ideation was correlated with high levels of depressive symptoms and is also associated with the risk factors for depression. It was found that 9% of the 4150 British women recruited for this study reported signs of suicidal ideation. Four percent of women stated suicidal ideation occurred sometimes or quite often. Another interesting discovery was that women who had suicidal ideation were likely to be younger, unmarried, unemployed, or have an unemployed partner. Since the CIS-R also used, it was noted that women who scored high on the EPDS were likely to have the same results on the CIS-R. However, there is a limitation in using these scales. The EPDS's question regarding suicidal ideation asks about thoughts of "harming one's self" versus directly asking "thoughts of suicide". This limitation is important to understand because women could have a different interpretation of the word "harm", thinking it relates to self-inflicted injury not intended to result in death. It is imperative that professionals who screen women who mark the self-harm statement prepare to refer the women to a mental health care provider for further assistance. It is safe to refer a women even with mild thoughts of self-harm than to not refer at all, for in the end

it could save lives. Despite this limitation, there is still reason to believe the EPDS to be the best screening tool for PPD.

Women's Perspectives with Postpartum Depression

It is important to understand all aspects surrounding screening and management of postpartum depression, including the mothers' experiences. A pilot study by Segre, O'Hara, Arndt, and Beck (2010) sought to inquire women's viewpoints on whether nurses should be the health professional to screen and counsel postpartum women for depression. They gathered descriptive surveys from 691 predominately white postpartum women, most of whom had relatively high annual incomes and another 132 low-income women within the United Kingdom (Segre et al., 2010). Variables measured were women's experiences with mood changes, their views on nurse-delivered screening programs and nurse-delivered counseling. Interestingly, 90% of women felt it was acceptable for nurses to screen and counsel for PPD and more than half were willing to see a nurse for counseling (Segre et al., 2010). Higher income women had a more positive view of nurse-delivered counseling, but there was a higher incidence of taking medications to treat PPD in the lower income women group (Segre et al., 2010).

Slade et al. (2010) conducted a qualitative interventional study to explore the postpartum depressed women's experiences in identification and management of depression and the care that was offered, accepted, or declined during postnatal primary care visits. The EPDS was the scale used to find potential candidates for interviews. Thirty women were recruited for the study and divided into different intervention groups: nine placed in a control group, ten from a cognitive-behavioral approach, and eleven from a person-centered approach. The interviews were semi-structured, offering open-ended questions to receive more informative answers. Various themes were explored after reviewing participants' responses (Slade et al., 2010)

The first theme, seeking help, divided into two subthemes, help-seeking styles and barriers to help (Slade et al., 2010). Often, women were reluctant to admit to their symptoms, only seeking help under advice from spouse, family, or friends. Many women felt their symptoms implicated failure and attempted to cope with them. Another finding revolved around the relationship with the women's health visitor, funneling into other themes regarding roles and relationships (Slade et al., 2010). In some cases, women were unaware the EPDS was being utilized, but most commended the scale, welcoming the opportunity to discuss their feelings and symptoms. Information provided by health visitors was inconsistent. Some women felt very informed, while others were confused as to what PPD symptoms were and how they differed from the baby blues. Relationships with health visitors played a vital role in the offering and acceptance of help. Most relationships were positive and therefore resulted in a positive attitude towards support from health visitors. A key finding was the women's understanding of the role of their health visitor, often believing the health visitor's services were strictly related to the infant (Slade et al., 2010).

The last theme was related to the different intervention groups the participants were placed in (Slade et al., 2010). Both groups undergoing cognitive-behavioral and person-centered approaches to intervention had positive experiences when the health visitors recognized their distress and was forthcoming about intervention and treatment. They felt understood and counseled during sessions, stating that all postnatal women should be offered this type of support and opportunity. Women from the control group had varied experiences, ranging from total support from the health visitor to unwilling support and even dismissal of symptoms. This contrasts the experiences felt by the women in intervention groups, suggesting that any type of intervention, specifically ones utilizing psychotherapy techniques or person-to-person counseling, is preferred by depressed women during care (Slade et al., 2010). The findings of

this study implicate a need for better informed sessions about PPD by health visitors, forthcoming attitudes toward recognizing depressive symptoms to normalizing and legitimizing women's feelings, and using alternative interventions to positively manage symptoms (Slade et al., 2010).

Parental Support Needs

Another aspect of PPD management, is the parental support needs when the mother and family unit when they are afflicted by postpartum depression. It is important to understand these needs so the APNs can correctly counsel and respond to the distress of the parents.

A quantitative correlational descriptive study by Leahy-Warren, McCarthy, and Corcoran (2011) was designed to examine the relationships between social support, maternal parental self-efficacy and postnatal depression in first-time mothers. The sample consisted of 410 Irish mothers and the following were variables measured: the relationship between informal (family and friends) social support and maternal parental self-efficacy, the relationship between maternal parental self-efficacy and postnatal depression, the relationship between total functional social support and subscales and postnatal depression, the relationship between informal structural social support and postnatal depression (Leahy-Warren et al., 2011).

It was discovered that family support enhanced maternal parental self-efficacy and positively influenced mental health after the first six weeks of childbirth (Leahy-Warren et al., 2011). There was a significant relationship between maternal parental self-efficacy and postnatal depression, an inverse relationship noted between social support and postnatal depression but only moderate correlation between total functional support and postnatal depression (Leahy-Warren et al., 2011). These findings indicate that social support, whether familial or professional, have a positive impact on a first-time mother's mental health and her ability to find confidence and assurance in her new role in life.

Letourneau, Duffett-Leger, Dennis, Stewart, and Tryphonopoulos (2010) designed a pilot study to interview and analyze the paternal experiences, support needs and barriers to support experienced fathers who have had a PPD partner. Eleven Canadian fathers were interviewed and discussed their coping experiences, support needs and resources, and barriers to support (Letourneau et al., 2010). The fathers themselves reported various depressive symptoms and the most common barriers to support were related to not knowing where to find help and reluctance to reach out (Letourneau et al., 2010). Limitations for this study relate to the small sample size and the participant demographics of being mostly married, educated, and middle class citizens (Letourneau et al., 2010). Since there is not much research regarding the paternal views and experiences with PPD, this study could be expanded to a wider demographic to help gather more information about paternal depression relating to partner PPD. This study suggests the need for nurses to be able to provide not just the mothers with information and counseling, but perhaps their partners as well.

Summary

Despite the limited amount of research regarding pediatric and obstetric APNs and the management of postpartum depression, the evidence that does exist is relevant to the further development of improved management PPD. Detection of postpartum depressive symptoms in a pediatric setting is a rare but necessary component of the postpartum period. At times, it may seem impossible to implement training and screening into a busy primary care practice, but it has been proven to improve the detection, management, and referral rates for women experiencing postpartum depressive symptoms. In addition, it seems APNs and other health care professionals desire more thorough care and realize detection of PPD is within their scope of practice. The willingness to be trained and implement screening using the EPDS will improve the outcomes for both the APNs, the postpartum mothers, and the pediatric patients.

A few studies discussed lead to the conclusion that nurse practitioners are not only an appropriately chosen health care professional, but a professional preferred and accepted by postpartum women. These studies supported the idea that many women were accepting and open to nurse-delivered mental health care, indicating that a change in protocol might be in the near future. But before they can provide adequate care, education is a must.

A variety of articles demonstrate that the lack of education for health care professionals regarding the screening and management of PPD, as well as techniques to counsel and support families afflicted by postpartum depression. Pediatric and obstetric nurse practitioners should have PPD training regarding recognizing symptoms, counseling, and referral to mental health care providers. Obstetric APNs should also be re-trained on how to use and evaluate the EPDS scores.

Evidence supports the usage of the Edinburgh Postnatal Depression Scale in the primary care setting over other types of screening instruments. The EPDS is a simple, user-friendly tool that allows mothers to quickly fill out a questionnaire to be interpreted by obstetric APNs. It can be utilized to guide obstetric APNs in referrals, and to act as a transitional instrument for open dialogue.

The evidence is clear about the need for an educational guide for pediatric and obstetric APNs in order to knowledgably and more accurately detect depressive symptoms in postpartum women during the well-child visit. However, it is important to note that depressive symptoms in fathers often go unnoticed or are attributed to the mother's depression. Ultimately, a depressed parent, mother or father, will have negative effects on the family unit.

In summation, the literature depicts a need for education for nurse practitioners regarding postpartum depression. This includes general information about PPD, but also how to utilize the EPDS. APNs must also have the confidence to educate mothers on depressive symptoms and

know when to refer mothers to mental health clinicians. Lastly, APNs should be able to recognize symptoms in the mother and partner, as depression effects the entire family unit. Using evidence based literature, a protocol for educating pediatric advanced practice nurses is not only necessary, but vital in managing postpartum depression in mothers in the primary care setting.

CHAPTER 3

Best Practice Guide: PPD Detection by Pediatric APNs

The purpose of this thesis was to develop a best practice guide for pediatric and obstetric nurse practitioners that will foster confidence in their ability to identify, refer, or manage postpartum mothers experiencing depressive symptoms. In this chapter, the proposed recommendations will be explored in regards to their importance to the development and integration of a proposed protocol.

As discussed in the previous chapter, postpartum depression has been difficult for APNs to detect, and even more challenging to manage. These difficulties can be alleviated by implementing a uniformed approach in educating and training APNs. However, this protocol cannot be employed without removing barriers between APNs and their clients. For pediatric settings, multiple articles supported the theme that mothers interpret the clinic visit as limited to their child. Mothers felt that mentioning depressive symptoms was not only uncomfortable, but also inappropriate regarding the purpose of the visit (Segre, O'Hara, Arndt, & Beck, 2010). In regards to the obstetric visit, mothers may feel some discomfort at the mentioning of depression, but were mostly willing to complete EPDS tools. However, they had poor follow-through when recommended behavioral health interventions or resources. As a step toward resolution, an aspect of the protocol is to have both APNs be able to create an open dialogue with mothers. APNs should be responsible for inquiring about depressive symptoms and demonstrate a willingness to discuss symptoms and interventions, while also generating an accepting and trusting environment.

The Importance of Education

A comfortable transition into the topic of depressive symptoms in obstetric settings, is discussing the recent results of the mother's Edinburgh Postnatal Depression scale score taken

minutes before the meeting. The EPDS is the screening scale of choice, widely supported by research evidences, a tool that should be universally utilized in the obstetric clinic setting due to its credibility in a variety of settings amongst various perinatal populations. This screening tool has been shown to be simple and quick to use, while also maintaining excellent accuracy regarding symptom detection (Hanusa, Scholle, Haskett, Spardaro, & Wisner, 2008). However, without proper education, WHNPs cannot facilitate a conversation about symptoms nor properly interpret EDPS scores. Conversely, PNP's should be educated on clinical indicators and cues of postpartum depression. PNP's must receive training on informal inquiry into the mother's adaption to motherhood, prevalence of social support, and her views on childrearing. Gathering this information via open dialogue and casual questioning is the best approach PNP's can take in order to remain compliant with their scope of practice.

Another recurring concept gathered from the review of literature is the importance of having well-educated APNs in both pediatric and obstetric settings. Without the proper education or training on PPD, these health professionals cannot perform the recommended and evidence-based identification and management of a postpartum mother's depressive symptoms. There are obvious components of PPD that both APNs should have education on, such as epidemiology, risk factors, and most importantly signs and symptoms. Properly prepared APNs will have improved confidence in caring for depressed mothers.

Once educated, the APN can feel comfortable enough to give information to mothers. Far too often mothers are misinformed or completely unaware of PPD symptoms. This lack of knowledge acts as a barrier between seeking help and treatment. Women can be naïve regarding the consequences PPD can have on the family unit. Mothers should understand that PPD effects not only their mental and physical well-being, but also the overall well-being of their partner and children. Understanding the consequences can aid in empowering women to seek help in order

to lessen or reverse tension and stress within the home environment. Ultimately, a responsible and involved PNP or WHNP who educates postpartum mothers can make a difference just by providing information.

Referrals and Interventions

Mothers who present with moderate to severe symptoms (score at 10 or above) require immediate intervention. However, it is often difficult for the any nurse practitioner to decide how to proceed after screening and detection. The protocol implemented would have explicit directions on how to proceed with depressed mothers who score highly on the EPDS or who present with immediate danger to self or others. A large part of the process is contacting and facilitating a partnership with local psychiatric mental health clinicians. The rapport and relationship between pediatric and obstetric clinics along with mental health clinics will foster an easier transition and coordination of care. Additionally, while the pediatric and obstetric APNs will have steady knowledge of PPD, it is a mental health clinician whom will have more advanced experiences treating depression both pharmacologically and non-pharmacologically. The pediatric advanced practicing nurse (or pediatric nurse practitioner) is not legally allowed to offer pharmacological treatment in obstetric patients for depression due to it lying outside the scope of practice. Therefore, partnership with mental health services would be beneficial to both the pediatric nurse practitioner and the depressed mother. Despite WHNP having the ability to prescribe pharmaceutical therapies, they may want to collaborate with a mental health practitioner in finding alternative options or determining the safety of certain medications.

Lastly, it is important for the APNs to know how to address the milder depressive symptoms and referrals. All mothers experiencing depression should be give options and alternatives regarding PPD management. If an APN feels the mother requires pharmacologic intervention, then referral to the mental health clinician (in collaboration with the WHNP) is

ideal. However, if the mother has milder symptoms, it would be appropriate for the WHNP to suggest non-pharmacologic interventions, such as community support groups. Furthermore, these interventions and referrals should not be limited to the mother, but extended to the partner as well.

It is vital for the each APN to understand his or her role in the detection and management of PDD in order to provide greater care for the family unit. The combination of the interventions listed in Table 2 provide the best practice recommendations that can be easily understood and implemented by APNs in their pediatric and obstetric clinic setting.

Table 2.

Guide for the Management of Postpartum Depression by Pediatric Advanced Practice Nurses (PNP) and Women's Health Nurse Practitioners (WHNP)

Aspect of Protocol	Characteristics	References	Level of Evidence	
Improved Time Management to Allow Time for PPD Screening	- OB APN: Pediatric primary care practices should make time for screening during a well-child visit, such as offering the EPDS tool during waiting time before appointment.	Chaundron L., Szilagyi G., Kitzman H., Wadkins H., & Conwell Y. (2004). Detection of postpartum depressive symptoms by screening at well-child visits. <i>Pediatrics</i> 113(51), 551-558.	Level II	
	- PNP: A well-child visit is often hurried, leaving the mother and APN unable to communicate about symptoms			
Removal of Barriers Between Mothers and PNPs and OB APN	- PNP: Quick appointments result in the APN having to rely on obvious clinical indicators or the mother's own words to determine depressive status	Connelly, C., Baker, M., Hazen, A., & Mueggenborg, M. (2007). Pediatric health care providers' self-reported practices in recognizing and treating maternal depression. <i>Pediatric Nursing</i> , 33(2), 165-127.	Level VI	
	- PNP: Mothers often feel the visit is limited to only the child, uncomfortable in mentioning symptoms of depression			
	- BOTH: The APNs must open a dialogue related to depressive symptoms, demonstrating a welcoming environment to discuss concerns			McConachie S. & Whitford H. (2009). Mental health nurses' attitudes towards severe perinatal mental illness. <i>Journal of Advanced Nursing</i> 65(4), 867-876.
	- BOTH: The APNs should assess for social support			Segre, L. S., O'Hara, M. W., Arndt, S., & Beck, C. T. (2010). Screening and counseling for postpartum depression by nurses: the women's views. <i>The American Journal of Maternal/Child Nursing</i> , 35(5), 280-285.
		Slade, P., Morrell, C., Rigby, A.,		

		Ricci, K., Spittlehouse, J., & Brugha, T. (2010). Postnatal women's experiences of management of depressive symptoms. <i>British Journal of General Practice</i> , 60(580), 440-451.	Level IV
		Dennis, C. and Leinic, C. (2006). Postpartum depression help-seeking barriers and maternal treatment preferences: A qualitative systematic review. <i>Birth</i> , 33(4), 323-331.	Level V
		Chaundron L., Szilagy G., Kitzman H., Wadkins H., & Conwell Y. (2004). Detection of postpartum depressive symptoms by screening at well-child visits. <i>Pediatrics</i> 113(51), 551-558.	Level II
		Leung, S., Leung, C., Lam, T., Hung, S., Chan, R., Yeung, T., et al. (2010). Outcome of a postnatal depression screening programme using the Edinburgh Postnatal Depression Scale: a randomized controlled trial. <i>Journal of Public Health</i> , 33(2), 292-301.	Level II
Utilization of the Edinburgh Postnatal Depression Scale Screening Tool by OB APN	<ul style="list-style-type: none"> - OB APN: The EPDS should be the universally utilized screening tool at obstetric primary care practices - OB APN: EDPS is simple to use, accurate, and not time consuming - OB APN: The EDPS can be filled out in the waiting room prior to WHNP/mother interaction 	<p>Hanusa, B., Scholle, S. Haskett, R., Spardaro, K., & Wisner, K. (2008). Screening for depression in the postpartum period: A comparison of three instruments. <i>Journal of Women's Health</i>, 17(4), 585-595.</p> <p>Edmondson, O., Lamprini, P., Vlachos, H., Netsi, E., & Ramchandani, P. (2010). Depression in fathers in the postnatal period: Assessment of the Edinburgh Postnatal Depression Scale as a screening measure. <i>Journal of Affective Disorders</i>, 125(1-3), 365-368.</p> <p>Howard, L., Flach, C., Mehay, A., Sharp, D., & Tylee, A. (2011). The prevalence of suicidal ideation</p>	Level VI

	identified by the Edinburgh Postnatal Depression Scale in postpartum women in primary care: findings from the RESPOND trial. <i>BMC Pregnancy and Childbirth</i> , 11(57), 1-10.	Level II
	Connelly, C., Baker, M., Hazen, A., & Mueggenborg, M. (2007). Pediatric health care providers' self-reported practices in recognizing and treating maternal depression. <i>Pediatric Nursing</i> , 33(2), 165-127.	Level VI
	- BOTH: APNs should understand the clinical indications, signs and symptoms, etiology and risk factors, and potential management solutions to mothers with PPD	
	Chew-Graham, C., Chamberlain, E., Turner, K., Folkes, L., Caulfield, L., & Sharp, D. (2008). GPs' and health visitors' views on the diagnosis and management of postnatal depression: a qualitative study. <i>British Journal of General Practice</i> , 58, 169-176.	Level III
Enhanced Staff Training	- BOTH: Training for both APNs would be most effective in giving them the confidence to care and manage depressed mothers	
	Yawn B., Dietrich A., Wollan P., Bertram S., Graham D., Huff J. et al., (2012). TRIPPD: A practice-based network effectiveness study of postpartum depression screening and management. <i>Annals of Family Medicine</i> 11(4), 321-330.	Level II
	- BOTH: APNs should understand their role in the screening and management of maternal depressive symptoms in order to provide quality care for the family unit	
	Brugha, T., Morrell, C., Slade, P., & Walters, S. (2011). Universal prevention of depression in women postnatally: cluster randomized trial evidence in primary care. <i>Psychological Medicine</i> , 41(4), 739-748.	Level II
	- BOTH: APNs should understand their scope of practice regarding the legality and liabilities of informal versus formal screening	
	Heneghan, A., Johnson Silver, E., Bauman, L., & Stein, R. E. (2000). Do Pediatricians recognize mothers with depressive symptoms? <i>Pediatrics</i> , 106, (6), 1367-1373.	Level IV
		Level V

<p>Ensuring PPD Education for Mothers</p>	<p>- BOTH: Mothers should be aware of the potential effects untreated depressive symptoms can have upon the family unit</p> <p>- BOTH: PPD effects not only the mother's physical and mental well-being, but also the other children and partner's physical and mental well-beings</p> <p>- BOTH: Understanding that depression causes mental anguish and stress within the home environment can often be a motivating factor in seeking help</p> <p>- BOTH: Lack of knowledge can be seen as a barrier to seeking help and treatment</p>	<p>Dennis, C. and Leinic, C. (2006). Postpartum depression help-seeking barriers and maternal treatment preferences: A qualitative systematic review. <i>Birth</i>, 33(4), 323-331.</p>	
<p>Referral to Mental Health Care Services</p>	<p>- OB APN: Mothers who score high on the EDPS should be referred to a local mental health care provider for immediate help</p> <p>- BOTH: Pediatric primary care practices should be in conjunction with a mental health care facility or service for rapid referrals</p> <p>- BOTH: Establishing communication and rapport between pediatric primary care practices and mental health care services will increase the ability of the APN to refer depressed mothers</p> <p>- BOTH: Mental health care providers often are more knowledgeable regarding pharmacologic management of depression</p>	<p>Connelly, C., Baker, M., Hazen, A., & Mueggenborg, M. (2007). Pediatric health care providers' self-reported practices in recognizing and treating maternal depression. <i>Pediatric Nursing</i>, 33(2), 165-127.</p> <p>Chew-Graham, C., Chamberlain, E., Turner, K., Folkes, L., Caulfield, L., & Sharp, D. (2008). GPs' and health visitors' views on the diagnosis and management of postnatal depression: a qualitative study. <i>British Journal of General Practice</i>, 58, 169-176.</p> <p>Dennis, C. and Leinic, C. (2006). Postpartum depression help-seeking barriers and maternal treatment preferences: A qualitative systematic review. <i>Birth</i>, 33(4), 323-331.</p>	<p>Level VI</p> <p>Level III</p> <p>Level V</p>

Interventions for Mild Depression Symptom Management	- OB APN: Those who are unable or unwilling to seek professional help regarding mild depression should be provided with alternative solutions to help self-manage their symptoms	Dennis, C. and Leinic, C. (2006). Postpartum depression help-seeking barriers and maternal treatment preferences: A qualitative systematic review. <i>Birth</i> , 33(4), 323-331.	Level V
	- OB APN: Mothers who score 9 or less on the EDPS should be recommended these interventions	Leahy-Warren, P., McCarthy, G., & Corcoran, P. (2011). First-time mothers: social support, maternal parental self-efficacy and postnatal depression. <i>Journal of Clinical Nursing</i> , 21(3), 388-397.	Level VI
	- OB APN: Mothers who score 10 or higher should be referred to a mental health care provider	Letourneau, N., Tryphonopoulos, P., Duffett-Leger, L., Stewart, M., Benzies, K., Dennis, C., et al. (2011). Support intervention needs and preferences of fathers affected by postpartum depression. <i>Perinatal Neonatal Nursing</i> , 26(1), 69-80.	Level VI
	- BOTH: Non-pharmacologic interventions an APN can suggest might include support groups (for both mother and partner), therapies, telephone-based support, non-directive counselling, and referrals to mental health services.	Letourneau, N., Duffett-Leger, L., Dennis, C. L., Stewart, M., & Tryphonopoulos, P. D. (2010). Identifying the support needs of fathers affected by post-partum depression: a pilot study. <i>Journal of Psychiatric and Mental Health Nursing</i> , 18(1), 41-47.	Level VI
	- BOTH: Interventions should not be limited to the mother, and be extended to the mother's partner as well		
	- BOTH: Fact sheets for both providers and mothers readily available is recommended to ease of access		

* PNP, OB APN, or BOTH before a bullet point designates whom the specific idea is designed to cater towards. In many instances, a specific idea is appropriate for both PNPs and WHNP to practice.

Table 3.

Levels of Evidence Defined

Level of Evidence	Definition
Level I	Evidence from systematic reviews or meta-analyses that include relevant randomized controlled trials (RCTs), or evidence-based clinical practice guides based on a systematic review of RCTs.
Level II	Evidence from at least one well-designed RCT.
Level III	Evidence obtained from well-designed control trials without randomization.
Level IV	Evidence obtained from well-designed case control studies and cohort studies.
Level V	Evidence obtained from systematic literature reviews of descriptive qualitative studies.
Level VI	Evidence obtained from a single descriptive or qualitative study.
Level VII	Evidence obtained from the opinion of authorities and/or reports of expert committees.

From Guyatt, G. and Rennie, D. (2002) as cited in Melnyk, B. M., and Fineout-Overholt, E. (2011). *Evidence-based practice in nursing and healthcare: A guide to best practice*. Philadelphia, PA: Lippincott, Williams & Wilkins.

Implementation and Evaluation of PPD Best Practice Guide

The chief focus within this chapter is in regards to a proposed implementation and evaluation of the best practice guide based in a hypothetical pediatric and obstetric primary care clinics. This trial period could be implemented in a medium-sized, well-established practice. At least half of providers should be APNs who see families of the lower- to middle-income socioeconomic level.

The Diffusion of Innovations Theory developed by Everett M. Roger (2003) will serve as the frame of reference for implementation and evaluation. This commonly used theory is designed to be executed in five stages: knowledge, persuasion, decision, implementation, and confirmation.

Knowledge

While it is certain the majority of advanced practice nurses know what postpartum depression is, it is unlikely they have all the information required to begin screening and referring. The knowledge stage serves as the spark of innovation (Roger, 2003). Using a simple approach, such as a formal presentation to the clinics' APNs, will expose them to the several issues surrounding underutilized screening during pediatric and obstetric care visits.

Several facts supporting the need for screening and detection must be addressed in order to pique the interest of the APN audience. APNs should understand the problems caused by undetected postpartum depression. It is important to mention and recognize the common barriers preventing screening for depression among postpartum mothers and providers as well as the issue of time management. Obstetric APNs will be re-introduced to the Edinburgh Postnatal Depression Scale and receive a thorough explanation of potential training program for staff members. For the pediatric nurse practitioners, detailed outline of clinical indicators and the related education will be discussed. The details of the training program shall be discussed during

the implementation stage. After the knowledge has been offered, the following stage of persuasion will be used to instill further interest in adopting the new guide.

Persuasion

This stage is key in determining whether the clinic staff will agree to move forward with the new guide (Roger, 2003). If the guide information is not presented in an informative manner highlighting the benefits of screening as well as the realities of implementation, the clinic staff will be reluctant to adopt the guide. The persuasion stage offers a chance for the innovator to stress the importance of PPD screening within the pediatric and obstetric primary care setting. The innovator must be able to answer all questions posed by staff members, and offer solutions to potential or actual problems. In essence, the innovator uses this time to build rapport with the clinic staff in order to persuade them to implement the protocol.

There are various ways an innovator can build rapport with the clinic staff. One way would be to ask staff their opinion on the subject and protocol itself. Getting the clinic staff involved from the beginning is a simple strategy that will result in better adaptation during the later implementation phase (Roger, 2003). Additionally, evidence-based research can be presented to further persuade staff into adopting the protocol.

Decision

During the decision stage, the clinic staff will determine if implementing a postpartum depression screening protocol will be beneficial for their clients. However, making a decision to implement a new protocol contains several steps. The clinic staff will wonder how this protocol can help their staff, how much time and effort it will take, and how it will affect their future. Once again, the numerous benefits of screening must be stressed. Consequently, it must also be noted the protocol's implementation is achievable in a manner that will not cause distress amongst employees (Roger, 2003). Here, it would be wise for the innovator to give some details

regarding implementation to further sway the clinic staff toward implementation. The steps must be outlined in a way that portrays how efficiently the protocol can be implemented.

Lastly, emphasizing the future benefits could cement the clinic's decision to agree to protocol implementation (Roger, 2003). Early detection of depressive symptoms in postpartum mothers gives women the chance to prevent symptoms from worsening and the opportunity to use a wider variety of treatment options. Educating mothers in depressive symptoms can help destigmatize the presence of the symptoms and foster the expression of possible concerns. Screening that results in early treatment can lead to a decrease in maladaptive family dynamics. By accentuating the future benefits of postpartum depression screening, the innovator can aid the clinic in the agreement of implementing postpartum depression screening protocol.

Implementation

Implementation of this protocol must be delivered in several steps, most critical of the implementation process revolves around training and educating the clinic staff members. Detailed below is the suggested implementation strategy to be introduced by the innovator, encouraged by the health care providers, and utilized by the entire staff for success:

1. Information sessions for each clinic staff member – Each member of the staff will be taught the protocol's goal of screening postpartum women for depressive symptoms as a preventative measure of familial dysfunction, improved maternal mental health and infant well-being. Staff will receive information regarding postpartum depression. Staff members might include medical assistants, desk receptionists, nurses, advanced practicing nurses (such as pediatric nurse practitioners or women's health nurse practitioners), and medical doctors. No matter the official occupational title of the clinic employee, all staff members must have a general understanding of postpartum depression and the potential effects it creates within the family unit.

1A. Information on the EPDS for Obstetric Advanced Practicing Nurses – Each staff member has a role within the protocol, specifically regarding the distribution of the EDPS tool. It would be beneficial to have receptionists/medical assistants hand out the EDPS along with the standard intake paperwork when the mother enters the clinic. If the mother has questions regarding the EPDS, the receptionist/medical assistant should be able to answer these questions or know whom to find the answers from. Once the form is completed, the score should be calculated by a medical professionals, such as the nurse or medical assistant only. These personnel should ensure every patient’s chart has at least one completed EPDS form signed off by a nurse, APN, or MD upon viewing and interpretation, preferably within an electronic medical record.

1B. OB APN/MD interpretation of EPDS scores – Obstetric health care providers, such as the APNs, must have the knowledge to interpret the EPDS scores. The score calculated by the medical personnel will factor into the APN’s complete assessment of depressive symptoms. The score should indicate whether emergent intervention is required, such as in a suicidal situation. If the score does not indicate emergency, the APN can refer to the decision document regarding EPDS follow up (Refer to *Table 5*)

2. Clinical indicators for Pediatric Nurse Practitioners – During the information session regarding postpartum depression, all staff members should be aware of obvious clinical indicators of depressive symptoms. These indicators can be separated into two categories, verbal and non-verbal (refer to *Table 3* for examples). If clinical indicators are noticed by any staff member, they should report these observations to the APN/MD so they can be factored into the screening. It is especially important for PNPs to recognize clinical indicators as these are often the best manner for PNPs to determine the prevalence of PPD within a certain family. Along

with education on what clinical indicators are and how to recognize them, they should also receive education on how to form an open dialogue with mothers.

Table 4.

*Examples of verbal and non-verbal clinical indicators of depressive symptoms**

Adapted from Breznitz (1992) and Ellgring (1989).

Non-Verbal Clinical Indicators	Verbal Clinical Indicators
<p>Decreased outward expression, flat affect, disengagement, restlessness, callousness, anxiousness, poor or little eye contact, poor posture, tired appearance, crying</p> <p><i>Example: A woman comes in with her newborn for the first well-child visit. She makes little eye contact with the receptionist, quickly loses interest in the nurse’s conversation, appearing tired with red and swollen eyes, and a flat affect regarding the care of her baby.</i></p>	<p>Depressed tone of voice, long pauses between words or sentences, sad/angry connotations of speech content, repetition of ideas, monotonous or soft spoken</p> <p><i>Examples:</i></p> <p>“I... can’t seem to get him to stop crying. It keeps me up all night... no matter what I do”</p> <p>“I already told you my husband doesn’t help? Well, he doesn’t do anything right!”</p> <p>“I can’t stop thinking about hurting myself or the baby some days”**</p>

**These indicators should be used as a guide as each mother might express depressive symptoms differently. These clinical indicators alone should not be used to diagnose postpartum depression.*

***In the case of verbalized or observed potential or actual harm to self or others, the emergency section of the decision tree should be followed.*

2A. APN/MD inquiry into depressive symptoms by OB APNs and PNPs – Per the guide, both obstetric and pediatric nurse practitioners will be required to inquire in a face-to-face conversation whether depressive symptoms are present. As stated earlier in chapter two, many professionals lack the confidence in asking about depression amongst postpartum mothers. It is vital providers understand how to ask about symptoms. While each situation differs, the APN should use their intuition when inquiring about PPD. But in most cases, frankly stating the question may prove best.

3. The decision-making process – The level of intervention is dependent upon three major factors: the EPDS score, the verbal indicators, and non-verbal indicators. EPDS scores are limited to OB APNs, and therefore, PNPs must rely on clinical indicators alone. Verbal indicators should be considered after the nurse practitioner has inquired directly about the

presence of symptoms. Once all of these factors are gathered, the pediatric or obstetric APN can determine the level of intervention as described below in Table 5.

Table 5.

The decision-making process in regards to the EPDS score

Score	How to proceed
Score of 5 or less	PPD education/information, foster open environment for the discussion of feelings, moods, behaviors, concerns.
Score between 5 and 10	PPD education/information, inquire about social support, self-care, history of depression/mental health issues. Give take-home information regarding PPD and who to contact should symptoms worsen. Offer non-pharmacologic coping methods for stress, anxiety, and depression.
Score of 11 or greater	PPD education/information, inquire about social support, self-care, history of depression/mental health issues. Refer to OB and psychiatric mental health practitioner for further evaluation and treatment (appointment within 2-3 days of visit). Follow up with phone call by APN, MD, RN, or case manager if available 2-4 weeks.
Emergent situation: suicidal/homicidal ideation or attempts	Stay with patient. Refer to emergency department for immediate psychiatric evaluation. Encourage social/family support if available. Have variety of professional support for patient, mother, and family available. Comfort child/infant and present family members. Reassure mother her infant's safety.

3A. Emergent situations – In the case of an emergent situation, the APN must respond immediately. An example of an emergent situation may be described as (but not limited to) verbalization of suicidal or homicidal ideation. These ideations even described as one-time thoughts, recurrent thoughts, or past thoughts, but should be taken seriously. As detailed in Table 5 while emergency medical system is activated and 911 is being contacted, the first act the pediatric or obstetric APN must take is to remain with the mother. The mother should be reassured her child is safe and that she will be receiving help shortly. If there is family with the mother, support should be encouraged. Likely, the mother will need a psychiatric evaluation and the emergency department is an important resource in this urgent situation. Regardless of the

outcome, either APNs should follow up with the family to ensure safety amongst not only the children, but also the adults.

4. Referrals and insurance – The pediatric and obstetric clinics should attempt to form a partnership with local mental health clinics in order to more easily foster direct referrals. One consideration is in regards to insurance. Whichever insurances are accepted by the pediatric clinic, should also be accepted by the mental health clinics. This way, when mothers go to appointments there will be less likely a conflict in lack of insurance coverage

5. Follow up – For EPDS scores of eleven or greater or the detection of prominent clinical indicators, the decision-making table (Refer to *Table 5*) suggests clinical referral by APNs. For the best interest of the entire family, the APNs should follow up with the mother in two to three weeks. The APNs can ask whether the mother was able to receive treatment, inquire about the family dynamics, and offer additional professional support.

Confirmation

Depending on the size of the pediatric and obstetric clinics, the implementation phase should take approximately one to two months in order to train and educate all staff members, procure paperwork, and foster relationships with other mental health clinics. Afterwards, the clinic should begin the trial period for six months, keeping accurate information on each client screened and any intervention actions taken within this period. This phase can also be interpreted as a commitment phase because this is when the clinic pledges to utilize the protocol, putting every effort into making the adaptation successful (Roger, 2003). The successes or barriers during this period will be the determining factor whether the practice will continue using the protocol within their clinic (Roger, 2003).

Evaluation

To determine if teaching and training was effective, each staff member will take a short survey detailing their level knowledge prior to the educational information and after. Results can be collected to determine if more education is needed prior to the beginning of the implantation period.

Thereafter, the protocol can be analyzed in both quantitative and qualitative approaches. Data can be taken from the patient's charts, which should include the completed EPDS form and the actions taken after the APN met with the mother. In the obstetric setting, it should be recorded how many EPDS forms were completed and present in all mothers' charts and what scores were prevalent. This will translate into how many women were detected, and it should be determined how many detections were correct and if there were any missed cases. There should be a tallied number of referrals, specifically listing how many were made to the mother's obstetrician/gynecologist, to a mental health provider, and to support groups. In the pediatric setting, chart audits will be drawn to see if mothers were screened by PNP's for clinical indicators and if present, whether referrals were made to the OB APN. In combination, this data can be gathered and analyzed to more accurately account for how well the protocol is working and if alterations should be made.

In a more qualitative approach, it would be wise to have an interviewer speak with APNs at the pediatric and obstetric primary care clinics. It would be insightful to gather their opinion regarding successes or failures of the protocol, if it is reaching the intended goal, and how their time management has changed since implementation. This could be accomplished using a focus group during a staff meeting. It would also be important to discuss if there is an improvement in symptomatic mothers since initial detection and referral. Lastly, APNs should indicate any barriers to implementation and if their confidence in screening and detecting postpartum depression in their pediatric patients' mothers has improved since the trial period.

Summary

The purpose of this thesis was to explore the advance practice nurse's role in the screening and detection of postpartum depression within the pediatric and obstetric primary care clinic. Through evidence-based literature, the issues and barriers against screening, education, and the usage of the EPDS trends were reviewed. A detailed overview of the evidence-based proposed screening and referral guide to assess for PPD was discussed in chapter three. Lastly, a hypothetical implementation and evaluation plan outlined a postpartum screening referral and management plan within the pediatric and obstetric primary care clinic by advanced practice nurses.

References

- Brugha, T., Morrell, C., Slade, P., & Walters, S. (2011). Universal prevention of depression in women postnatally: cluster randomized trial evidence in primary care. *Psychological Medicine, 41*(4), 739-748.
- Breznitz, Z. (1992). Verbal indicators of depression. *The Journal of General Psychology 119*(4), 351-363.
- Chaundron L., Szilagyi G., Kitzman H., Wadkins H., & Conwell Y. (2004). Detection of postpartum depressive symptoms by screening at well-child visits. *Pediatrics 113*(51), 551-558.
- Chew-Graham, C., Chamberlain, E., Turner, K., Folkes, L., Caulfield, L., & Sharp, D. (2008). GPs' and health visitors' views on the diagnosis and management of postnatal depression: a qualitative study. *British Journal of General Practice, 58*, 169-176.
- Connelly, C., Baker, M., Hazen, A., & Mueggenborg, M. (2007). Pediatric health care providers' self-reported practices in recognizing and treating maternal depression. *Pediatric Nursing, 33*(2), 165-127.
- Cox, J., Holden, J., Sagovsky, R. (1987). Detection of postnatal depression: development of the 10-item Edinburgh Postnatal Depression Scale. *The British Journal of Psychiatry, 150*, 782-786.
- Dennis, C. and Leinic, C. (2006). Postpartum depression help-seeking barriers and maternal treatment preferences: A qualitative systematic review. *Birth, 33*(4), 323-331.
- Doucet, S., Letourneau, N., & Blackmore, E. R. (2012). Support needs of mothers who experience postpartum psychosis and their partners. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 41*(2), 236-245.

Ellgring, H. (1989). *Nonverbal Communication in Depression*. Cambridge, Great Britain: Cambridge University Press.

Fitelson, E., Kim, S., Baker, A. S., and Leight, K. (2011). Treatment of postpartum depression: Clinical, psychological, and pharmacological options. *International Journal of Women's Health, 2011*(3), 1-14.

Hanusa, B., Scholle, S., Haskett, R., Spadaro, K., & Wisner, K. (2008). Screening for depression in the postpartum period: a comparison of three instruments. *Journal of Women's Health, 17*(4), 585-596.

Heneghan, A., Johnson Silver, E., Bauman, L., & Stein, R. E. (2000). Do Pediatricians recognize mothers with depressive symptoms? *Pediatrics, 106*, (6), 1367-1373.

Howard, L., Flach, C., Mehay, A., Sharp, D., & Tylee, A. (2011). The prevalence of suicidal ideation identified by the Edinburgh Postnatal Depression Scale in postpartum women in primary care: findings from the RESPOND trial. *BMC Pregnancy and Childbirth, 11*(57), 1-10.

Jones, C. J., Creedy, D. K., and Gamble, J. A. (2012). Australian midwives' awareness and management of antenatal postpartum depression. *Women and Birth, 25*(1), 23-28.

Leahy-Warren, P., McCarthy, G., & Corcoran, P. (2011). First-time mothers: social support, maternal parental self-efficacy and postnatal depression. *Journal of Clinical Nursing, 21*(3), 388-397.

Letourneau, N., Tryphonopoulos, P., Duffett-Leger, L., Stewart, M., Benzies, K., Dennis, C., et al. (2011). Support intervention needs and preferences of fathers affected by postpartum depression. *Perinatal Neonatal Nursing, 26*(1), 69-80.

Letourneau, N., Duffett-Leger, L., Dennis, C. L., Stewart, M., & Tryphonopoulos, P. D. (2010).

Identifying the support needs of fathers affected by post-partum depression: a pilot study. *Journal of Psychiatric and Mental Health Nursing*, 18(1), 41-47.

Leung, S., Leung, C., Lam, T., Hung, S., Chan, R., Yeung, T., et al. (2010). Outcome of a postnatal depression screening programme using the Edinburgh Postnatal Depression Scale: a randomized controlled trial. *Journal of Public Health*, 33(2), 292-301.

McCabe, K., Blucker, R., Gillaspay Jr., J. A., Cherry, A., Mignogna, M., Roddenberry, A., et al. (2012). Reliability of the postpartum depression screening scale in the neonatal intensive care unit. *Nursing Research*, 61(6), 441-445.

McConachie S. & Whitford H. (2009). Mental health nurses' attitudes towards severe perinatal mental illness. *Journal of Advanced Nursing* 65(4), 867–876.

O'Hara, M. (2009). Postpartum depression: what we know. *Journal of Clinical Psychology*, 65(12), 1258-1269

Pearlstein, T., Howard, M., Salisbury, A., & Zlotnick, C. (2009). Postpartum depression. *American Journal of Obstetrics and Gynecology*, 200(4), 357-364.

Rowan, P., Greisinger, A., Brehm, B., Smith, F., and McReynolds, E. (2012). Outcomes from implementing systematic antepartum screening in obstetrics. *Archives of Women's Mental Health*, 15(2), 115-120.

Segre, L. S., O'Hara, M. W., Arndt, S., & Beck, C. T. (2010). Screening and counseling for postpartum depression by nurses: the women's views. *The American Journal of Maternal/Child Nursing*, 35(5), 280-285.

Slade, P., Morrell, C., Rigby, A., Ricci, K., Spittlehouse, J., & Brugha, T. (2010). Postnatal women's experiences of management of depressive symptoms. *British Journal of General Practice*, 60(580), 440-451.

Yawn B., Dietrich A., Wollan P., Bertram S., Graham D., Huff J. et al., (2012). TRIPPD: A practice-based network effectiveness study of postpartum depression screening and management. *Annals of Family Medicine* 11(4), 321-330.