Best Practice Guidelines for the Nurse Practitioner Regarding Screening, Prevention, and Management of Postpartum Depression

Stephanie Neiman, BSN, RN; Sherry Carter, PhD, RN, WNP; Sharon Van Sell, EdD, RN, PAHM; Chris Kindred, MS, CPNP

Purpose: The purpose of this study was to design a means to educate the registered nurse or nurse practitioner on epidemiology, signs and symptoms, risk factors, screening tools, management, and complications that can occur with delayed diagnosis of postpartum depression. A decision tree was also developed to help the registered nurse or nurse practitioner understand the best clinical practice guidelines regarding the best screening tool to use, when the tool should be used, and management of patients identified with postpartum depression. Results: Best practice guidelines were developed from the literature review. Key words: best practice, guidelines, nurse practitioner, postpartum depression, screening tools

PURPOSE

This study was designed to find the best way to educate the registered nurse (RN) or nurse practitioner (NP) on epidemiology, signs and symptoms, risk factors, screening tools, management, and complications that can occur with delayed diagnosis of postpartum depression (PPD). A decision tree was also developed to help the RN or NP understand the best clinical practice guidelines regarding the best screening tool to use, when the tool should be used, and management of patients identified with PPD.

METHODS

A systematic evidence-based literature review was conducted with the assistance of Texas Woman’s University and Texas Health Presbyterian Hospital of Dallas online library services. The electronic databases that were used included (a) CINAHL, (b) Cochrane Library, (c) National Guideline Clearinghouse, (d) MEDLINE, (e) PubMed, (f) OVID, (g) Elsevier, and (b) ScienceDirect, as well as the World Wide Web through the Google search engine. Medical and nursing textbooks were also used.

REVIEW OF THE LITERATURE ON PPD

Prevalence

Postpartum depression is a serious condition that affects approximately 10% to 20% of mothers, which makes PPD the most common serious postpartum disorder.1
Postpartum depression usually starts within the first 4 weeks after delivery, and the risk for development of depression remains high during the first year postpartum.\(^1\) Postpartum depression is a debilitating disease and affects not only the patient but also the family. Children of depressed mothers are more likely to have delayed motor development as well as cognitive, psychological, or neurological problems; these children are also at higher risk of avoidance and distressed behaviors.\(^1\)

Despite the negative outcomes associated with PPD, rates of diagnosis and treatment are low mainly because of lack of recognition by the health care provider.\(^1\) In addition, PPD is the most misinterpreted, frequently dismissed, and most undiagnosed postpartum complication.\(^2\) Early recognition of PPD can eliminate the length of time that women have to suffer with this debilitating condition and can decrease the potentially harmful effects on the infants involved. According to Mancini et al, “too often, obstetric clinicians do not screen for postpartum depression because of the lack of training in the recognition and treatment of depression, the lack of [a] convenient and reliable screening tool, the stigma of mental illness, and a belief that confronting mental health issues will create a therapeutic burden on the caregiver.”\(^3\)(p429) It is, therefore, important to develop clinical guidelines for NPs regarding screening, prevention, and management of PPD.

**Cause**

The cause of PPD is not known, but research suggests that it is multifactorial. According to the American Congress of Obstetricians and Gynecologists, “postpartum depression is likely to result from body, mind, and lifestyle factors combined.”\(^4\) The levels of estrogen, progesterone, serotonin, and thyroid decrease sharply and return to normal during the immediate postpartum period, which can trigger depression and can change a woman’s mood and behavior.\(^1,5\) Other aspects that can lead to PPD include (a) unresolved feelings about the pregnancy, (b) fatigue after delivery from lack of sleep or broken sleep, (c) feelings of being less attractive, (d) doubts about the ability to be a good mother, (e) stress from changes in work and home routines, and (f) loss of freedom and old identity.\(^4,6\)

**Clinical manifestations**

Different from the baby blues, symptoms of PPD last longer, are more severe, and require treatment.\(^6\) Some signs and symptoms of PPD include feeling the following: (a) restless, (b) worthless, (c) guilty, (d) hopeless, (e) moody, (f) sad, or (g) overwhelmed. The new mother may also (a) cry a lot; (b) exhibit a lack of energy and motivation; (c) be unable to make decisions or focus; (d) lose her memory; (e) experience a lack of pleasure; (f) have changes in appetite, sleep, or weight; (g) show a lack of concern for herself; (h) withdraw from friends and family; (i) have pains in her body that do not subside; (j) feel negatively toward her baby; (k) lack interest in her baby; (l) worry about hurting the baby; and (m) have recurrent thoughts of suicide and death.\(^6\)

**Risk factors**

The relationship between stressful life events, such as losing a job, death of a loved one, moving, and relationship breakdown or divorce, and the development of depression is well established.\(^5\) Symptoms of depression and anxiety during pregnancy, a history of depression or psychiatric illness, and inadequate support at home are strong to moderate predictors for developing PPD.\(^7,8\)

In a retrospective investigation and literature review, McCoy et al\(^9\) found that formula feeding, cigarette smoking, and a history of depression were all associated with significantly higher incidence of PPD. Other factors found to be associated with increased risk for development of PPD include complications that occurred during childbirth or the pregnancy. In addition, women with less
education, low self-esteem, a history of a miscarriage, and a history of childhood sexual abuse are more prone to PPD.7,8

**Consequences of PPD when left untreated**

Postpartum depression negatively influences a mother's ability to interact with her family and infant cognitively and emotionally.10 According to Delatte et al,11 depressed mothers report fewer healthy child development practices, fewer safety practices, and more frequent use of harsh discipline. Furthermore, a secondary data analysis completed by McLearn et al12 showed that mothers with depressive symptoms had a significantly reduced likelihood of continuing to breast-feed the infant, playing and talking to the infant, showing books to their children, and following 2 or more routines to promote positive child development.

Pawlby et al13 completed a prospective longitudinal study that found that the risk for psychiatric disorders in children whose mothers had PPD was 4 times greater than in children whose mothers did not have it. Boys and girls had an equal chance of developing a psychiatric disorder.

**Diagnosis**

According to the diagnostic criteria set forth by the American Psychiatric Association in the *Diagnostic and Statistical Manual of Mental Disorders (Fourth Edition, Text Revision)*, PPD falls under major depressive episode with a postpartum onset.14 The American Psychiatric Association stated that to be diagnosed with PPD, a patient must present with a depressed mood or loss of interest or pleasure that lasts for 2 weeks. She must also have exhibited any of the following 5 symptoms over the same 2-week interval: (a) depressed mood; (b) change in appetite or change of 5% or more in body weight; (c) decrease in pleasure or interest in all, or almost all, daily activities; (d) insomnia or hypersomnia; (e) feelings of lack of energy or fatigue; (f) psychomotor retardation or agitation; (g) feelings of inappropriate or extreme guilt or worthlessness; (b) repetitive thoughts of suicidal ideation with or without a specific plan, or a suicide attempt; and (i) indecisiveness or attenuated concentration. These symptoms must also be causing significant impairment or distress in social, vocational, or other important daily functions, and the onset must occur during the first 4 weeks postpartum. Moreover, although the *Diagnostic and Statistical Manual of Mental Disorders (Fourth Edition, Text Revision)* indicates that these symptoms must occur within the first 4 weeks postpartum in order to be classified as PPD, several experts think that women remain at higher risk for developing PPD for up to 1 year postpartum.1,14

**Differential diagnosis**

Although PPD is the most common postpartum affective disorder, a number of other disorders can occur during the postpartum period. Some of the differential diagnostic symptoms that health care providers should be aware of include (a) anemia, (b) thyroid disorders, (c) substance abuse, (d) postpartum psychosis, and (e) anxiety disorders such as postpartum panic disorder, postpartum obsessive-compulsive disorder, and postpartum posttraumatic stress disorder.5 These differential diagnoses can be ruled out by ordering a urine drug screen, thyroid studies, or a complete blood cell count.5 In addition, disorders such as anemia and those of the thyroid can cause weight loss, agitation, and anxiety, similar to symptoms of PPD, and the differential diagnosis for postpartum psychosis includes these symptoms: (a) disorganized behavior, (b) delusions, (c) rapid mood swings, and (d) hallucinations.5

**Screening tools**

Routine use of validated screening tools to identify women at risk for PPD is an easy, effective, and economical way to recognize them; and pediatric and maternal
appointments are sensible opportunities for longitudinal and routine screening for PPD.\textsuperscript{1,3} Gjerdingen and Yawn\textsuperscript{1} reported that more than 80% of mothers are receptive to being screened for PPD, although the current screening rate is less than 50%. Similarly, from their study, Fergerson et al\textsuperscript{15} concluded that the use of a routine screening tool that has been identified to screen for PPD, such as the Edinburgh Postnatal Depression Scale (EPDS), enhances the detection of PPD and improves early recognition of PPD by clinicians compared with a routine clinical evaluation.

**Edinburgh Postnatal Depression Scale**

The EPDS is the most thoroughly researched and most recognized screening tool for PPD.\textsuperscript{16} It is a self-report, quick, and easy screening tool for PPD that consists of 10 questions with 4 possible responses.\textsuperscript{17} The women fill out the tool according to their symptoms over the last 7 days, with each response given a score of 0 to 3 points, creating a maximum score of 30.\textsuperscript{16} Using a cutoff score of 9 or 10, the sensitivity is 86%; the specificity, 78%; and positive predictive value, 73%.\textsuperscript{16} According to Schumacher and Zubaran, “this value is capable of detecting most cases of potential depression.”\textsuperscript{16}(p1756)

The EPDS takes 5 minutes or less to complete and is easily accessible online at no cost. According to Cole, “The tool is written at the 5th grade reading level, yet is effective in identifying women of all socioeconomic status.”\textsuperscript{2}(p461) The EPDS is an assessment/screening tool that identifies those at risk for PPD, but it does not diagnose depression; therefore, the EPDS should not be substituted for psychiatric evaluation or a clinical interview, essential for diagnosis of depression.\textsuperscript{16}

**Postpartum Depression Screening Scale**

The Postpartum Depression Screening Scale (PDSS) is a self-report, 35-item Likert-type response scale divided into 7 conceptual domains: (a) anxiety/insecurity, (b) sleep/eating disturbance, (c) emotional liability, (d) loss of self-esteem, (e) guilt/shame, (f) cognitive impairment, and (g) suicidal thoughts.\textsuperscript{16,17} The scores range from 35 to 175; the scale has 5 symptoms for each domain, and the woman is asked to identify her degree of disagreement or agreement on the basis of her feelings over the last 2 weeks.\textsuperscript{16} The sensitivity of the PDSS is 91%; the specificity is 72% for detecting PPD. The PDSS takes 5 to 10 minutes to administer and is used during the postpartum period.\textsuperscript{2}

**Postpartum Depression Predictor Inventory-Revised**

The Postpartum Depression Predictor Inventory-Revised (PDPI-R) was derived to identify women at risk for developing PPD and seeks information on social supports, prenatal depression, marital satisfaction, life stressors, and other topics.\textsuperscript{16,17} The PDPI-R should be administered through clinical interview, and it is used to encourage dialogue between the woman and the provider, but the PDPI-R has neither psychometric properties nor a scoring system.\textsuperscript{16,17} While the postpartum version consists of all 13 risk factors specifically for PPD, the first 10 are for the prenatal version and the last 3 are specific for the postpartum period.\textsuperscript{16}

Few studies have compared the utility of the screening tools, but the instruments with the best supporting evidence at this time are the EPDS or the PDSS.\textsuperscript{18} According to a systematic review completed by Gjerdingen and Yawn, “EPDS is the most extensively studied postpartum measure with moderate psychometric soundness.”\textsuperscript{1}(p284)

**RESULTS**

On the basis of the literature, the researcher developed best practice guidelines on screening, prevention, and management of PPD. In addition, a screening protocol was designed to aid the provider in screening and treating PPD (Figure 1).
Screening

Antenatal screening for psychosocial risk factors is not useful as a predictor of PPD, but it can be used to identify problems during the antenatal period. In fact, no screening tools are appropriate for prenatal prediction of PPD. Consequently, providers should screen all women using the EPDS before they are discharged from the hospital and continue to screen them throughout the first year postpartum because evidence indicates that PPD can occur anytime during the first year postpartum. Three time points are most appropriate for screening for PPD: (a) during the postpartum follow-up appointment, (b) during pediatric follow-up appointments, and (c) during primary care appointments following childbirth.

To screen using the EPDS, the NP or RN should administer the scale to the new mothers 2 to 3 days postpartum. The cutoff scores of 10 to 11 at that point indicate no PPD; these scores are highly correlated with comparable scores at 4 to 6 weeks postpartum and are considered predictive. Similarly, Jardri et al validated the early use of the EPDS 3 to 5 days postpartum with a cutoff score of 9.5. Based on these findings, the recommendation for screening is to use the EPDS at 2, 3, or 5 days postpartum before discharge from the hospital, if possible. The recommended cutoff score is 10. At 6 weeks postpartum and during other follow-up visits throughout the first year, screening with the EPDS should be conducted with a cutoff score of 11.

Prevention

In small studies, estrogen given 48 hours before delivery and intense postpartum
support and education provided by the healthcare provider have been shown to be beneficial in preventing PPD. Therefore, administration of estrogen should be considered by NPs for preventing PPD.23,24

Nonpharmacologic and pharmacologic management

Both nonpharmacologic and pharmacologic treatments have proven effective in the treatment of PPD. Nonpharmacologic treatment of PPD includes (a) interpersonal psychotherapy, (b) cognitive-behavioral therapy, (c) family and marital group therapy, (d) psychodynamic therapy, (e) light therapy, (f) peer-support therapy, and (g) electroconvulsive therapy.5 A few studies have shown that the use of nonspecific counseling and cognitive-behavioral therapy is equally effective as pharmacologic agents in treating PPD, and the combination of both nonpharmacologic and pharmacologic treatment has not been proven to have additional benefits.5 Pharmacologic agents that have been researched in the treatment of PPD include drugs in various classes of antidepressants such as tricyclic antidepressants, serotonin re-uptake inhibitors, and bupropion SR.

When choosing a pharmacologic treatment of PPD, breast-feeding women, in particular, must weigh the potential risks of antidepressant drug exposure to the infant.23 For this reason, administering low doses of antidepressant medication right after delivery and titrating the dose up while monitoring the infant for adverse effects are recommended.23 Furthermore, avoiding breast-feeding at the peak concentration time can minimize infant’s exposure to the antidepressant, and decreasing the antidepressant dose, changing the medication, or introducing partial or complete bottle-feeding should occur if the infant has adverse effects.23 Pharmacologic treatment should be continued for 6 months to prevent relapse; if no improvement or relapse occurs before 6 months, a referral to a psychiatric mental health NP or a psychiatrist must be completed.5

CONCLUSION

Early identification, screening, prevention, and treatment of PPD are crucial for improving overall outcomes for the mother and baby, as well as for decreasing mortality and morbidity.5 This is why it is crucial that RNs and NPs understand and know about the risk factors, signs and symptoms, prevention, use and interpretation of screening tools, and appropriate referral point for treatment of PPD.

Mass screening for PPD using a validated screening tool has been proven to improve the rates of detection and treatment of PPD and should be implemented in obstetricians’ and pediatricians’ offices and in primary care settings by RNs and NPs.1 Evidence shows that the EPDS is the best screening tool for identifying women at risk for PPD; consequently, it should be used for the mass screening.1 A decision tree (Figure 1) was developed to help the RN or NP understand the best clinical practice guidelines regarding the EPDS screening tool that identifies PPD, the points during the postpartum period when it should be used, and management of patients identified with or at risk for postpartum depression.

REFERENCES

5. Munoz C, Agruss J, Haeger A, Sivertsen L. Postpartum Depression