Postpartum Depression (PPD)

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Abstract

Postpartum Depression (PPD) affects 10-15% of new mothers, but many cases of PPD remain undiagnosed. The term "Postpartum Depression" encompasses several mood disorders that follow childbirth and are discussed in this paper. Important developments in the study of PPD include its association with symptoms of anxiety and bipolar disorders in addition to those of depression.

Postpartum Depression (PPD) encompasses several mood disorders that follow childbirth. Postpartum depression (PPD) affects 10-15% of all new mothers, but may be as high as 35% in certain demographic groups.[1] One study found that 19.2% of new mothers were diagnosed with major or minor depression within the first three months postpartum, 7.1% specifically with major depression.[2] In another study of 214 women, 86 reported high levels of depressive symptoms (40.2%), but only 25 (11.7%) were actually diagnosed as being depressed.[3] Another survey revealed that one-third of women scoring within a depressive range at eight months postpartum were still depressed 12-18 months later, but only 15% sought help or were referred to a mental health professional.[4] PPD is underdiagnosed and remains the most common complication of childbirth and the most common perinatal psychiatric disorder, with women at greatest risk during their first postpartum year (45-65% of ever-depressed women).[1]

Many cases of PPD may remain undiagnosed due to constraints such as time and concerns about the social acceptability of screening. But the majority of undiagnosed cases are probably due to the social stigma of being labeled an "unhappy mother,"[5] not to mention the public image of PPD. Upon formal screening, many women scoring in a depressive range fully admit to being depressed, understanding that their symptoms are neither minor nor transient. But they reject the term "postpartum depression" because this implies to them that their feelings are *caused by their babies*.[4] For these women, it is the stigma of PPD that causes shame, fear, embarrassment, and guilt.[2]

In addition to the stigma of mental illness, the societal portrayal of idealized motherhood adds even more strain to the emotionally taxed mother. Women attempt to hide their distress and struggle alone in fear of being labeled an unfit parent or, worse, having their baby taken from them. They may minimize their symptoms or attribute them to feeling overwhelmed by the demands of a new baby, lack of sleep, or difficult infant temperament. Some may deny "traditional" depressive symptoms in lieu of experiencing irritability and/or anxiety as their primary complaint. Even the most informed physicians may not attribute these feelings to PPD, assuming that they are due to the stress of newfound motherhood.[6] To make matters worse, a woman's risk of recurring PPD with subsequent children is estimated at 50-100%![7] These women continue to suffer, most in silence and bewilderment, about the pathology of their condition, a condition which is treatable and possibly even preventable.

Definitions and Distinctions

The term "postpartum depression" is an umbrella, which encompasses several mood disorders that follow childbirth. It is vital to distinguish between these, as each may require very different treatment or none at all. These mood disorders overlap in symptomology, but have unique, differentiating features:[6]

- **The "baby blues"** describes the most common mood disturbance in new mothers (50-80%), with an early onset, peaking at day five, and full resolution 10-14 days postpartum. Symptoms include emotional lability, frequent crying, anxiety, fatigue, insomnia, anger, sadness, and irritability. While considered "normal," the blues can evolve into full-blown PPD if symptoms last longer than two weeks; indeed, it remains one of the strongest risk factors for PPD with 25% of women developing a more chronically depressive course.[1,2,6] The key difference between the blues and PPD is the short time frame and the fact that the blues do *not* interfere with maternal role functioning, making the blues a self-limiting disorder that does not demand treatment.[1]

- **Postpartum Panic Disorder** is diagnosed if the mother experiences panic attacks for the first time in her life. These are discrete periods of intense fear involving palpitations, sweating, shortness of breath, chest pain, dizziness, lightheadedness, numbness, fear of death, and feeling of unreality or losing control. Symptoms peak within ten minutes of onset.[2]

- **Postpartum Obsessive Compulsive Disorder (PPOCD)** is obsessive, unwanted thoughts with accompanying behaviors. It is important to note that women *recognize* their obsessions as their own thoughts and feelings and understand that follow-through would be wrong. They may even construct elaborate schemes to avoid situations in which thoughts might become actions (i.e., removing all the knives from the home), yet often act upon compulsive rituals (i.e., changing the baby even when dry).[2,8]

- **Postpartum Post Traumatic Stress Disorder (PPPTSD)** is the result of birth trauma involving threatened or actual serious injury or death to the mother or her infant (5.6% of all postpartum women), resulting from feelings of powerlessness or ignored emotional needs during her tenure at the hospital. Symptoms may include nightmares, flashbacks, exaggerated startle response, anger, or difficulty sleeping and/or concentrating. Women may be so haunted by the pain and stress of their labor and delivery that they avoid driving anywhere near the hospital where they gave birth![2]

- **Postpartum Psychosis (PPP)** is the most serious, but least common, of all postpartum mood disorders. Representing one to two per thousand deliveries and occurring within three months of delivery, it is associated with delusions, loss of touch with reality, auditory and visual hallucinations, extreme agitation, confusion, inability to eat or sleep, exhilaration, racing thoughts, rapid speech, rapid mood swings, paranoia, and suicidal and/or infanticidal ideations. PPP warrants immediate hospitalization and treatment.[1,2,6] PPP is strongly associated with bipolar disorder and has a strong genetic concordinance among bipolar sisters.[1] When contrasted with PPOCD, women suffering from PPP are *not* aware that their thoughts and feelings are their own and often act on their delusional inclinations, 5% of which result in infanticide and/or suicide.[7] It is thought that delusional guilt about personal inability to care for or love the child precipitates "altruistic" infanticide, and 62% of mothers who kill their babies go on to commit suicide. Experts believe that infanticide is actually part of a larger suicidal scheme. Despite its severity, women diagnosed with and treated for PPP have a good prognosis and frequently achieve remission.[1]

PPD is currently defined in accordance with the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) criteria for major depressive disorder of four or more of the following symptoms experienced nearly every day for at least two weeks: insomnia, hypersomnia, psychomotor agitation or retardation, fatigue, changes in appetite, feelings of worthlessness, guilt, decreased concentration, and suicidality. The patient must also have either a depressed mood and/or loss of interest or pleasure in daily activities with episodes beginning within four weeks of delivery.[1,2] Such parameter constraints would omit many women experiencing legitimate PPD symptoms within a much broader time frame. While 40-67% of PPD cases begin within the first 12 weeks postpartum, anywhere from 30-70% of mothers may experience depression for longer than one year![6] Clinicians, therefore, expand the postpartum period to a risk range of three months to two years.[1] In addition, milder cases of PPD, which may not fit all the criteria of the DSM-IV, are diagnosed as "depression not otherwise specified."[2]

The Mechanism of PPD

The biological mechanism of PPD is believed to coincide with that of major depressive disorder. Depression in general is a disease of neuronal circuit integrity, which has been shown in studies by a reduction in brain volume of individuals diagnosed with major depressive disorder. Interestingly, the amount of volume loss correlates directly with the number of years of illness. Stress and depression act to reduce numerous brain proteins that promote neuronal growth and synapse formation, and antidepressant medications have been shown to increase these and other protective proteins, thereby reversing the mechanism of depression. These underlying neurobiological changes result from developmental interactions between genetic susceptibility and environmental factors (i.e., the psychosocial stresses accompanying motherhood) rather than a simple "chemical imbalance," as previously believed. Specifically, the neurobiological effects of rapid postpartum hormone withdrawal predispose women with established risk factors to PPD.[1]

An interesting distinction that makes PPD unique from other depressive disorders is that it is marked by a prominent anxiety component. This may be why so many cases of PPD are missed, as many clinicians use the Patient Health Questionnaire-2—which covers depressed mood and dysphoria, but not anxiety—as their primary screening technique.[5] Indeed, 66% of depressed mothers have a co-morbid anxiety disorder and should be evaluated carefully by their physicians. It is important for the physician to distinguish these feelings of anxiety as pathological and not necessarily attributed to new-mother anxiety in general, so that treatment options will cover symptoms of anxiety as well as depression.[5,6]

The stress of caring for a newborn or even the circumstances surrounding labor and delivery may precipitate the first symptoms of PPD,[9] which has been described by nurse and PPD expert Cheryl Beck as a four-stage process: encountering terror, dying of self, struggling to survive, and regaining control. Encountering terror describes the horrifying anxiety, relentless obsessive thinking, and enveloping "fogginess" that women feel as PPD sets in. The dying of self is the disappearance of "normal self" that women experience as they go through the motions of caring for their infants, described as a "robotic" sense of "unrealness." A woman struggles to survive as she

attempts to improve the consequences of dying of self, seeking help from health care providers, praying for relief, or finding solace in support groups. Regaining control consists of periods of bad days interrupted by good days, until good days eventually outnumber the bad. Women may grieve during this phase for the lost time with their infants, fear recurrence, and, therefore, remain guarded about recovery.[2] While Beck's four-stage analysis is an accurate summary of the process of PPD, each woman's individual experiences should not be oversimplified. PPD is a systemic issue affecting a woman's functioning, her sense of well being, relationship with her infant and other family members, capacity for parenting, and sense of competence. As these aspects of her life become more demanding and begin to decline, the woman teeters on the brink of an emotional precipice, which has potentially grave consequences for her infant and other family members.[6]

The Effects of a Mother's PPD on Her Children

As the initial stressors related to labor, delivery, and bringing baby home give way to new triggers, infant temperament can exacerbate or minimize a new mother's PPD symptoms depending on sleep patterns, frequency of crying, being easy-going or demanding, and whether or not baby is socially reinforcing with smiles and coos.[6] As the emotional toll of PPD mounts in the mother with increasing guilt, a sense of being overwhelmed by child care responsibilities, and fear of being unable to cope, she may give way to bursts of uncontrollable anger, show less affection to her baby, and be less responsive to his cries. These infants in turn tend to be fussier, more distant, and make fewer positive facial expressions and vocalizations.[2] Adverse effects on the child continue throughout the first year after birth, but PPD places children of all ages at risk for impaired cognitive and emotional development as well as psychopathology. There are multiple implications for infants of mothers with PPD, whose developing capacities for emotional regulation and healthy attachment relationships become compromised. These infants exhibit insecure attachments to their mothers (disorganized-disoriented), more negative, sober, flat affect, protest behaviors, regulation difficulties, and gaze aversion. They also exhibit decreased eye contact, vocalizations, activity levels, and environmental exploration. They are at risk for impaired language development and perform less well on cognitive tests at 18 months when compared to their peers of non-depressed mothers. Indeed, the effects of PPD are still evident in children at ages 4-5 years old.[1,6,10]

Female infants appear more protected against deleterious effects of PPD than males. Boys with depressed mothers tend to be even more cognitively delayed than girls and display more outwardly violent behavior.[2] The rates of ADD and ADHD are much higher in boys than in girls. There is a correlation between boys with behavioral problems and mothers with PPD. A mother's sensitivity can greatly reduce the consequences of her depression on the child. If she is too emotionally impaired to respond appropriately to her infant, the father (or other caregivers) can provide contingently responsive care and cognitive, emotional, and physical stimulation in order to mediate where the mother is temporarily lacking.[6] PPD can be quickly treated and controlled. This makes it all the more crucial that it be identified as early as possible so as to reduce potentially negative outcomes, not just for the mother but for her developing infant as well.

Identifying PPD: Who is at risk?

There is much discrepancy over which risk factors for PPD are better indicators than others. Socioeconomic status, race or ethnicity, education levels, the mother's level of self-esteem, her age, whether or not the pregnancy was planned, circumstances surrounding labor and delivery, problems with breastfeeding, and infant temperament all seem to be possible triggers, but much debate remains over how strongly they contribute. The most consistent risk factors include any prior history of depression, inadequate social support, poor quality of the mother's relationship with her partner, and life and child care stress.[1,2,6,8,9] If a mother has a lower socioeconomic status, less education, or is especially young, she probably has less access to monetary resources. While her individual circumstances alone might not be considered strong risk factors, added up, her global situation could contribute to the life and child-care stress that *is* a major risk factor for PPD. This concept applies to all women potentially at risk for PPD, so it is vital that physicians assess their patients as individuals and not just symptomatic checklists. Pregnancy itself appears to be a time of decreased risk for new-onset mood disorders (perhaps because of a potentially protective effect of increased levels of thyroid hormone); but it is not necessarily protective against previously diagnosed depression, which is probably the biggest risk factor for later developing PPD.[11] Those women who do develop depression during pregnancy are also at high risk for developing PPD after the birth of their children.[1] Indeed, any history—individual or family—of depression is one of the greatest risk factors, with anywhere from 25-55% of mothers suffering from PPD reporting that their symptoms began during pregnancy.[9]

Identifying PPD: Who should screen and when?

It is estimated that at least 50% of PPD cases go unrecognized.[10] When PPD is identified, it is most often the primary care provider who does so (41.3% of cases), followed by obstetricians (30.7%), then mental health providers (13.0%).[9] While psychiatrists are probably better equipped to identify and treat PPD, women are more likely to seek help from their OB/GYN, primary care physicians,[10] or even their children's pediatrician. The reasons for this discrepancy are likely multifactorial. A woman is already intimately familiar with the physicians she has been seeing for years and likely trusts them more.

Because women tend to seek help from these primary care physicians, it is imperative that they familiarize themselves with the symptoms, risk factors, and screening techniques of PPD. There are several screens available, the most widely used currently being the PHQ-2 questionnaire (covering depressive and dysphoric mood nearly every day for at least two weeks). While traditionally a "yes" or "no" questionnaire, responses to the PHQ-2 can be quantified to more accurately assess a woman's mood. It can also be extended beyond the DSM-IV time frame of four weeks as defining the postpartum period. But even with these adaptations, there is a major flaw in the PHQ-2 when applied to PPD—it does not address the hallmark PPD symptom of anxiety. It is only 83% sensitive with a cutoff score ≥ 3, and adapting it quantitatively and extending the time frame it covers has not been shown to benefit sensitivity.[5] One of the most successful screening tools specifically for PPD is the Edinburgh Postpartum Depression Scale (EPDS), developed by Kendell et al in Edinburgh Scotland as the result of the first major research on PPD over 30 years ago.[11] It represents a 10-item questionnaire (scored 0-30) with varying levels of specificity and sensitivity, depending on where the cutoff score falls. Sensitivity increases with lower cutoff scores, but at the cost of specificity. For example, at a cutoff of 12, the EPDS has an 86% sensitivity and 78% specificity. One study showed that women with EPDS scores of 5-9 are *68 times more likely* to develop PPD than women with scores of 0-4 in the first five months postpartum. This has led to the proposal of campaigns to have physicians educate mothers, monitor symptoms, and possibly initiate treatment, if their scores are ≥ 9. Currently, most clinics employing the EPDS use 10 as the cutoff score, which identifies more than 90% of women with PPD.[1] But regardless of where the cutoff score falls, the evidence supporting the use of the EPDS in incontrovertible. When used in a residency program in 2004, the EPDS increased detection of PPD from 6.3% of identified cases to 35.4%. Then, implemented into a community program as part of the same study, detection increased from 3.7% to 10.7%. While many cases remained undiagnosed, the EPDS vastly improved the outcome for those whom it did identify.[10] The success of the EPDS is most likely due to its focus on psychological rather than somatic aspects of depression. It explores two distinct domains of negative affect—depression *and* anxiety. In fact, the EPDS-3 (a subset of the EPDS questions specifically addressing anxiety) has been shown to have an even better performance than the EPDS in its entirety! With a sensitivity of 95% and specificity of 98%, the EPDS-3 identified *16% more* mothers with PPD than the EPDS-10.[5] In addition, the EPDS-3 is much faster to complete and lessens any time constraints on both physician and patient.

Because a woman's history of depression is such a significant risk factor, the prenatal and early postpartum periods are probably the most ideal times to begin screening women for potential risk factors for PPD in order to intervene as early as possible. In one study, 54.2% of women with PPD reported that their symptoms actually began during pregnancy.[6,9] It is recommended that the EPDS should be used within two to three days postpartum or at the first after-delivery pediatric visit. It should then be issued again four to six weeks later during follow-up OB visits in order to distinguish the blues from true PPD. Screening could also be implemented during subsequent pediatric or primary care visits to ensure that EPDS scores continue on a downward trend. If scores remain ≥ 9, symptoms can be addressed and treated by a primary care physician, OB/GYN, or pediatric care providers.[6,9,10] EPDS is *not* a diagnostic tool but is to be used in conjunction with further evaluation.[10] Such evaluation should continue beyond the six-week postpartum visit (at least through 12 weeks) with mothers determined to be at-risk, as mood episodes can be lengthy and psychological sequelae increase with the duration of depressive symptoms. These sequelae take a heavy toll on the woman's functioning as well as the well being of her children,[11] as undetected PPD often develops into a more chronically depressive course. One study showed that two years later, 30.6% of women diagnosed with PPD at one month postpartum continued to score in the depressed range on the Beck Depression Inventory-II. Because of the chronicity of PPD and the impact it has on a woman and her entire family, anticipatory guidance about PPD risk factors, prevalence, and typical symptoms is recommended to alert women who have one or more risk factors to contact their health care providers if depression or anxiety symptoms appear and persist beyond two weeks postpartum.[8] The sooner these women can be identified, the sooner treatment measures can be implemented to prevent PPD from worsening into a more severe, chronic course.

Treatment Options

The majority of PPD cases can be handled on an outpatient basis, but if suicidality or infant safety is a concern, hospitalization is automatically warranted. Outpatient treatments include two major studies of thought: psychotherapy, which has proven effective for mild to moderate depression, and pharmacotherapy, which has proven effective for moderate to severe PPD. Combined psycho- and pharmacotherapy is considered first-line treatment for non-psychotic, mild to severe PPD. For women with nutritional compromise, severe behavior withdrawal, psychosis, or suicidality, electroconvulsive therapy has proven safe and effective.[1] Many women for whom pharmacotherapy is recommended remain concerned about breastfeeding and the effects of antidepressants on their infants' developing neurological systems. This is a legitimate concern due to the fact that, while the most current research indicates minimal to no immediate side effects in breastfeeding infants, there is no established research regarding the long-term effects of antidepressants on the rapidly developing brain and nervous system. And, while PPD is the most common mood disorder in new mothers, it is important to rule out or diagnose and treat other possible sources of depression (which treatment would not effect the baby, but may rather provide benefits), such as thyroiditis or vitamin B_{12} deficiency. If a woman's physician decides that traditional antidepressants are necessary and she is amenable to such treatment, breastfeeding babies should still be monitored for potential side effects, such as difficulty feeding, weight gain, and sleep or state changes.[13]

Because all antidepressant medications are secreted into breast milk, physicians should begin with the lowest effective dose and observe infant behavior for unlikely but potential side effects. The clinical recommendation for the administration of any antidepressant medication is immediately after breastfeeding and prior to the infant's sleep time to minimize exposure to peak drug concentrations.[12] Women who are sensitive to antidepressant side effects should be initiated at half the recommended dose for four days, then increased by small increments as tolerated until full remission is achieved. In general, women being treated for PPD with antidepressants, an acute response is achieved when symptoms are reduced by 50%. After an initial response of six to eight weeks, the same dose should be continued for a minimum of six months to prevent relapse.[1,14] As with any medication taken by lactating mothers, the pediatrician's involvement is recommended with the administration of antidepressants. He or she can monitor the infant for potentially adverse effects, such as sedation, changes in sleep or feeding patterns, and irritability.[12]

If antidepressant medication is not an acceptable treatment option, several methods of psychotherapy have proven effective in treating PPD, including interpersonal, cognitive-behavioral, and group and family therapies. Women participating have displayed fewer symptoms and increased positive affect, sensitivity, and responsiveness toward their infants. Interpersonal and mother-infant therapy groups focusing on family relationships have proven especially effective in treating PPD. Treatment decreases social isolation and depressive symptoms, increases coping skills, improves interpersonal relationships, and teaches skills in preventing depression. For these reasons, psychotherapy is considered the first line of acute treatment and maintenance in breastfeeding mothers.[1,6] Studies show that as few as six to ten sessions of interpersonal therapy (IPT conducted 8-18 weeks postpartum) focusing on role disputes, role transitions, interpersonal deficits, grief, and changing relationships—all entailed in new motherhood—are as equally effective at relieving depressive symptoms as chemical antidepressants and result in lower EPDS scores.[1,8,14] The theory behind the success of IPT is that disruptions in relationships may be a major contributing factor to PPD. Treatment includes focusing on these relationships and deciding on specific problems and setting treatment goals. As Cheryl Beck described in the "dying of self" stage of PPD, many women feel as if their "normal self" disappears after the birth of their children.[2] Thus, exploring the role transitions that motherhood brings can help women come to terms with these changes and accept their new roles as part of their "new" normal self. Group therapy, which aims at increasing social support networks and decreasing social isolation through interactive processes, has also proven an effective treatment for PPD. Challenges have arisen, however, in recruiting adequate numbers of women, scheduling conflicts, reluctance to attend without infants, and shame, or embarrassment.[8]

Psychotherapy remains an attractive alternative to breastfeeding mothers. If significant psychosocial issues, interpersonal problems, or underlying personality disorders are present, it may need to be combined with pharmacotherapy in order to fully resolve the mother's PPD and accompanying complications.[8] It is also important for mental health providers to engage women's partners, as improving a mother's mental health also improves her partner's mental health. The optimal treatment for PPD should, therefore, be interdisciplinary, holistic, and family-centered in its approach. It should include education about the disorder, treatment options, and promotion of behaviors that improve mental and overall health, including adequate sleep, good nutrition, exercise, and limiting or avoiding alcohol and caffeine. Families may want to consider hiring household help, lengthening the time of maternity leave, or decreasing work hours if their budgets allow for it (although some women might find so much increased time alone with their infants isolating). Most importantly, treatment should be individualized for each woman and her family according to their circumstances. PPD creates problems for children from 1-18 years old and has a negative influence on the father's mental health, which emphasizes the need for a family perspective in treatment options.[8] Physicians should assess the mother's level of emotional support, involve her family members with information and referrals, add to and enhance her social support system, and help the woman feel more connected with those who care about her. This will in turn decrease her level of bewilderment and helplessness[6] and assist in the journey that is her recovery from PPD.

Conclusions: The future of PPD

Recent trials with hormone therapy have concluded that estradiol administration shows a significant reduction in depression scores during the first month postpartum. Clinical risks including deep venous thrombosis, endometrial hyperplasia, and inhibition of lactation preclude the recommendation of estrogen treatment until adequate evidence of safety and efficacy is proven.[8] Prophylactic administration of progesterone has actually been shown to increase and worsen symptoms of depression when compared to placebo.[1,14] Trials of T_4 in antibody-positive women have shown negative results, while an open-label study of treatment with omega-3 fatty acids has shown a significant positive response rate.[12] Alternative treatments have also been studied, such as bright light therapy, acupuncture, St. John's wort, exercise, and massage therapy.[1,8]

What might be even more important than treatment trials is the campaign for screening and referral protocol, promoting awareness, and providing information to both physicians and their patients. Promoting awareness is probably the greatest tool available to reduce high rates of underdiagnosis and aid women in obtaining evaluation and treatment.[6] One study showed that among women identified with and educated on PPD, 93.4% subsequently sought treatment.[9] This finding strongly supports the need for routine screening and education. Some experts have even called for universal PPD screening being adopted as standard of care under the precept that unless symptoms are identified, referral and intervention obviously cannot occur.[8]

New Jersey recently became one of the first states to mandate PPD screening and education programs.[11] It is recommended that the EPDS be filled out in physicians' waiting rooms, scored by nurses or medical assistants, and the results reviewed by the medical provider. It has also been suggested that clinicians decrease the EPDS cutoff score in order to increase sensitivity, and refer women with higher scores to mental health providers for more comprehensive psychiatric evaluations.[6] Pediatric clinics are especially attractive screening sites, whose setting is intended to detect depression rather than assess its severity.[5] In a patient interview, one woman affected by PPD suggested putting up posters at pediatric clinics in big, bold letters, "Hey new moms! Are you sleeping when your baby sleeps?" due to insomnia being one of the most commonly experienced PPD symptom. While new mothers suffering from PPD may neglect their own health, most continue to bring their babies in for pediatric check-ups and vaccinations. It therefore seems only logical to incorporate key questions about maternal mood in the child health and safety questionnaire[5].

Studies continue to examine the effectiveness of preventing PPD from ever happening in the first place, but the process seems to be an unfortunate catch-22 as test subjects are most often women who have already experienced PPD at some point. It is theorized that by identifying women at risk and providing support groups and parenting classes, physicians can prevent PPD, but more research is needed.[1] The most important thing physicians can do is make women more aware of PPD as a common occurrence, and assure them that experiencing depressive symptoms after giving birth does not make them "unfit" or "bad" parents. The stigma of mental illness must be reversed so that women can be more comfortable admitting to being diagnosed with and treated for PPD. Celebrities, such as Brooke Shields and Marie Osmond, have broken some of the initial barriers by coming forward with their personal stories and helping women know that they are not alone, nor are they anything less than loving mothers wanting desperately to provide the best care possible for their children, if they could only rise above the suffocating fogginess of depression and anxiety. If PPD is to be quickly treated or even prevented, women cannot be afraid to step forward themselves and admit to feeling anything less than bliss upon becoming new mothers. It is up to us as physicians to also be willing to take that first step forward in our efforts to recognize and educate our patients in this most grave and common mood disorder.

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References

1. Moses-Kolko, Eydie and Erika Kraus Roth. "Antepartum and Postpartum Depression: Healthy mom, healthy baby." *Journal of the American Medical Women's Association.* 2004; 59: 181-91.
2. Beck, Cheryl Tatono. "Postpartum Depression: It isn't just the blues." *American Journal of Nursing.* 2006; 106(5):40-50.
3. Hendrick, Victoria. "Treatment of Postnatal Depression." *British Medical Journal.* 2003; 327: 1003-4.
4. Lumley, Judith. "Attempts to Prevent Postnatal Depression Have Not Included Mental Health Workers, and Have Failed." *British Medical Journal.* 2005; 331: 5-6.
5. Kabir, Karolyn, Jeanelle Sheeder, and Lisa S. Kelly. "Identifying Postpartum Depression: Are 3 questions as good as 10?" *Pediatrics.* 2008; 122(3): e696-e702.
6. Perfetti, Jennifer, Roseanne Clark, and Capri-Mara Fillmore. "Postpartum Depression: Identification, screening, and treatment." *Wisconsin Medical Journal.* 2004; 103(6):56-63.
7. Abell, Sue. "Postpartum Depression." *Clinical Pediatrics (Phila).* 2007; 46: 290-1.
8. Horowitz, June Andrews and Janice H. Goodman. "Identifying and Treating Postpartum Depression." *Journal of Obstetric and Gynecological Nursing.* 2005; 34(2): 264-73.
9. Dietz, Patricia M., Selvi B.Williams, William M. Callaghan, Donald J. Bachman, Evelyn P. Whitlock, and Mark C. Hornbrook. "Clinically Identified Maternal Depression Before, During, and After Pregnancies Ending in Live Births." A*merican Journal of Psychiatry.* 2007; 164(10): 1515-20.
10. Peindl, Kathleen S., Katherine L. Wisner, and Barbara H. Hanusa. "Identifying Depression in the First Postpartum Year: Guidelines for screening and referral." *Journal of Affective Disorders.* 2004; 80(1): 37-44
11. Wisner, Katherine L., Christina Chambers, and Dorothy K. Y. Sit. "Postpartum Depression: A major public health problem." *Journal of the American Medical Association.* 2006; 296(21): 2616-18.
12. Payne, Jennifer L. "Antidepressant Use in the Postpartum Period: Practical considerations." *American Journal of Psychiatry.* 2007; 164(9): 1329-32.
13. Yonkers, Kimberly A. "The Treatment of Women Suffering From Depression Who Are Either Pregnant or Breastfeeding." *American Journal of Psychiatry.* 2007; 164(10): 1457-9.
14. Wisner, Katherine L., Barbara L. Parry, and Catherine M. Piontek. "Postpartum Depression." *New England Journal of Medicine.* 2002; 347(3): 194-9.
15. Wisner, Katherine L., James M. Perel, Kathleen S. Peindl, Barbara H. Hanusa, Catherine M. Piontek, and Robert L. Findling. "Prevention of Postpartum Depression: a pilot randomized clinical trial." *American Journal of Psychiatry.* 2004; 161(7): 1290-2.
16. Webster, Joan, John Linnare, Janice Roberts, Susan Starrenburg, Janice Hinson, and Linda Dibley. "Identify, Educate, and Alert (IDEA) Trial: an intervention to reduce postnatal depression." *British Journal of Gynecology.* 2003; 110: 842-6
17. Rampono J. et.al. "Transfer of escitalopram and its metabolite demethylescitalopram into breast milk." *British Journal of Clinical Pharmacology*. 2006; 62(3): 316-322.