

## Baby Blues Understanding Postpartum Depression

Rajeshwari Ravi\*

*\*Department of Psychology, North Campus, University of Delhi, India*

*Received February 20, 2020; Revised June 20, 2020; Accepted June 22, 2020*

### ABSTRACT

The present article is an attempt to explore the concept of Postpartum Depression also known as PPD. This article explores what the concept is all about along with outlining its aetiology, symptoms and also the ways in which it can be treated. Furthermore, this article also takes into account the effect that it has on not only the individual with PPD but also how it affects the child as well. It outlines the psychological basis of PPD and also throws light on how society treats the concept of PPD. This article thus aims to bring into focus the topic of Postpartum Depression and tries to give a simple and brief understanding of the same.

**Keywords:** Postpartum depression (PPD), DSM-V, Symptoms, Treatment

### INTRODUCTION

The birth of a child is a miraculous process; it signifies the creative capabilities of living beings and how the cycle of life works. The natural reaction by any parent is expected to be of happiness, feeling over the top of the world and experiencing the entire process of pregnancy with extreme calm, control, compassion, care and love. And these emotions are expected more from mothers than fathers across all cultures; but what if parents especially newly given birth mothers feel the baby blues!

The term baby blues refers to the nervousness, anxiety, mood swings and gloomy feeling experienced by parents after the birth of their child. When these feelings persist for long, disrupting the attachment of parents towards their baby it is termed as POSTPARTUM DEPRESSION {PPD}. Postpartum depression is a type of clinical depression which affects both sexes after childbirth but as females carry the child and also due to the expectations from them to act maternally, they experience postpartum depression more than males.

Postpartum depression is also termed as postnatal depression or according to DSM-5 [1] it is called as depressive disorder with peripartum onset.

Depressive disorder with peripartum onset or PPD can start anytime during pregnancy or within four weeks (a month) after delivering the child. The criteria for diagnosis of postpartum depression DSM-5 [1] must be any five out of the nine symptoms listed below experienced persistently for at least 2 weeks or more:

- Feeling sad, empty or hopeless nearly every day, for most of the day or depressed mood observed by others.
- Loss of interest or pleasure in activities.
- Weight loss or gain. {Decreased or increased appetite}.
- Change in sleep patterns.
- Feeling restless.
- Loss of energy.
- Feeling worthless and/or guilty.
- Loss of concentration/attention and/or increased indecisiveness.
- Recurrent thoughts of death with or without plans of suicide.

Postpartum depression is different from postpartum psychosis which is a form of bipolar disorder and PPD is termed as Baby Blues when the above-mentioned symptoms only last for a week or 10 days. PPD takes various forms on the basis of symptoms experienced by the patients; it can be **Postpartum**

**Corresponding author:** Rajeshwari Ravi, Department of Psychology, North Campus, University of Delhi, India, Tel: 9910005134; E-mail: rajrajeshwari96@gmail.com

**Citation:** Ravi R. (2022) Baby Blues Understanding Postpartum Depression. *J Psychiatry Psychol Res*, 5(3): 335-341.

**Copyright:** ©2022 Ravi R. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

**Depression with Panic Disorder** when PPD is experienced along with recurrent panic attacks; it can be **PPOCD** i.e. Postpartum Obsessive Compulsive Disorder where the patient has symptoms of PPD along with obsessive thoughts like “I don’t love my child” and associated compulsive behavior like changing baby’s diaper over and over again unnecessarily and lastly it can take the form of **PPPTSD** i.e. Postpartum Post Traumatic Stress Disorder wherein the patient along with PPD symptoms experience nightmares, flashbacks of some stressful event or reliving the pain of delivery etc.

Postpartum Depression is often considered to be caused due to expecting parents’ weak mental strength but this is absolutely wrong as just like any other depression PPD too has multiple causal factors.

These causes range from biological to socio-cultural and finally individual differences among people. The biological view of PPD states that after giving birth there is a sudden decrease in hormones especially estrogen and progesterone which can lead to feeling tired and disoriented. Also, the thyroid gland in pregnant women at times may become underactive which can lead to low or slow metabolism which can cause depressed mood, lethargy etc. And if the concerned patient has had depression before or in a more genetic view if any of their first relatives (close blood relative sharing more than 50 percent genetic material like parents, siblings.) then too risk of PPD is very high. The emotional/affective view suggests that the mere act of giving birth causes so much emotional turbulence in females and the pressure to take care of the child causes PPD in parents. The expectation of family and Society to have kids and to behave in a particular manner congruent to one’s gender role creates a lot of pressure for the parents especially females. Apart from these two views one’s own mental and physical strength, financial status, giving birth to a differently-able child, lack of support and care, experiencing parenthood for the first time and the will to have a child also contributes as factors causing postpartum depression.

Furthermore, lack of schooling and low socioeconomic level are factors more commonly associated with PPD. Among the psychosocial factors that present greater association with PPD are lack of social support, history of mental illness, postpartum sadness, antenatal depression, low self-esteem, antenatal anxiety, stressful life events, unplanned pregnancy, an attempt to interrupt the pregnancy and negative feelings in relation to the child [2].

Symptoms may start to show either in a week after giving birth or as late as 6 weeks after delivery. The types of symptoms seen ranges from physical to psychological with mothers experiencing emotional imbalances, moodiness, fatigue, lack of appetite, feeling a sense of inadequacy, irritation etc.

In a study by Stewart et al. [3] it was found that nearly all women face fear and anxiety after giving birth but not all

express it as they feel that it is uncharacteristic of a mother to express such emotions.

Another study by Salisbury et al. [4] has stated that women especially working women are more likely to suffer with Postpartum Depressions since they fear and are anxious as to how they will get back and also fear that they won’t be able manage their time well.

It is a universal culture wherein women are given this image of nurturer and to such an extent that when a woman decides not to have a child or is unable to get pregnant it is considered that she is not complete. Such stereotypes push women into unplanned and hasty pregnancy which then causes further anxiety and nervousness and fear thus leading and taking the form of postpartum depression.

Even though having a child is equally exciting for both males and females but the emotion of anxiety is associated more to females than to males because it is not masculine enough to show weak emotions therefore most epidemiological studies have been done keeping in mind women but now due to increased awareness and sensitivity studies regarding men too have been initiated but yet they are not enough to quote any concrete figures regarding PPD. According to APA (American Psychiatric Association) 1 out every 5 women suffer through PPD and nearly 50 percent of women suffering through PPD eventually experience Postpartum Psychosis and nearly 30 percent women start having symptoms of PPD since the onset of pregnancy. The prevalence of PPD is between 10 and 20% according to the majority of studies. Variations in the rates of prevalence are probably due to the use of diverse diagnostic methods and criteria, as well as economic and cultural differences among the groups studied.

In Brazil, in a study conducted in the District of Anaia, in São Gonçalo, in the state of Rio de Janeiro, Da Silva et al. [5] observed a prevalence of 12% of depression during the third month of the postpartum period (N=33). Two other Brazilian studies found similar prevalences: 13.3% (N=120), in the Portuguese validation study of the Postpartum Depression Screening Scale (PDSS) conducted in Recife, Pernambuco.

A number of recent investigations have examined the link between race/ethnicity, younger age, and education and PPD. Although some studies find clear support for these variables as risk factors [6,7], other studies find that these associations can be accounted for by SES [8,9], suggesting that poverty may be the common factor among many of the demographic correlates of PPD.

A number of perinatal-related stressors have been examined as potential risk factors for the development of PPD, including perinatal complications, infant health and temperament, and mode of delivery. For example, in a sample of 4,941 women, Blom et al. [10] found that women experiencing a range of complications including pre-eclampsia, prenatal hospitalization, and emergency cesarean section were more likely than other women to score in the

clinical range on the Edinburgh Postnatal Depression Scale (EPDS) at two months postpartum. These effects remained significant when controlling for socio demographic variables and pre-existing psychopathology. Further, there is evidence that PPD symptomatology may be influenced by infant health [10] and temperament [11].

In contrast, mode of delivery has not received support as a risk factor for PPD [12,13].

The lack of studies regarding males experiencing Postpartum Depression and the mere handful of studies done in the past 5-6 years regarding Postpartum Depression as a distressing problem faced by expecting or new parents shows that how low was the awareness among people and also the fact that people who suffered through this could not speak out either due to lack of insight; due to the stigma attached to mental depression or even due thinking how they can feel sad or disconnected with their children and thus leading them to believe that maybe they are bad parents or are not meant to be one. Apart from these even babies also suffer too as during the first few weeks if babies do not get their mother's warmth and have erratic breastfeeding schedule it can hamper their physical as well as psychological well-being and later on manifest as either physical illness like pain or psychological distress like avoidant attachment style, being recessive etc. thus in such times it is very important that parents especially mothers suffering through PPD are given support, love, and proper treatment and therapy so that they can cater to their child's needs as well as their own needs in an efficient and healthy manner.

Women with PPD have been shown to exhibit a number of cognitive biases that lead to negative perceptions of themselves and others (including their infants) [14,15]. A heightened self-focus has been shown to be characteristic of many psychiatric disorders [16]. A number of studies have demonstrated an increased self-focus in mothers with PPD through a variety of methods. For example, increases in depressive symptoms during the transition into motherhood are shown to predict a decrease in family-related goals and a concomitant increase in self-focused goals [17]. Additional studies have demonstrated an increased self-focus by showing that mothers with PPD were impaired in their ability to recognize affective cues [18,19].

PPD has been shown to affect numerous maternal caretaking behaviors. The negative impact of depressive symptoms is apparent in one of the earliest of interactions with her infant-breastfeeding. Breastfeeding is critical to infant development, and exclusive breastfeeding can continue for as long as six months postpartum. In a qualitative review of 49 studies, Dennis and McQueen [20] identified one study that provided longitudinal evidence establishing temporal precedence of an effect of PPD on breastfeeding outcomes.

Later studies have reported support for an effect of PPD on breastfeeding outcomes.

The negative effects of PPD extend beyond the early postpartum period to infancy and into childhood. Women with depressive symptoms are less likely to attend well-child visits, complete immunizations, use home safety devices, or place infants in the recommended sleeping position [21]. PPD also is associated with problematic practices in putting infants to sleep (e.g., nursing the infant to sleep at beginning of night), incorrect use of car seats, and setting safe water heater temperature levels [22]. In addition to compromising the safety and well-being of the infant, mothers with PPD are more likely to neglect and abuse their children [23].

A meta-analysis of 193 studies demonstrated a small but significant association between maternal depression and a range of child behavioral outcomes including internalizing psychopathology, externalizing psychopathology, negative emotionality, and positive emotionality [24]. Although this meta-analysis did not focus exclusively on depression in the postpartum period, it highlights the importance of numerous factors relevant to the consequences of PPD on child behavioral outcomes (e.g., child sex, child age, SES).

Recent studies of the consequences of PPD specifically have reported similar conclusions to Goodman et al.'s [24] quantitative review, showing that maternal depressive symptoms experienced during the first six months postpartum are associated with behavioral problems from early childhood to adolescence [14,25]. That PPD predicts poorer language and IQ development in children and that this effect is found across childhood and adolescence [26-28].

It is always expected that parents must be selfless, caring and always on their toes but this is extremely unrealistic since even they too can crack under pressure or feel nervous or jittery when faced with any new or unexpected situation and these feelings are completely normal to be experienced by expecting or newly delivered parents since it's their first experience being parents and also it is completely acceptable for even those who aren't expecting for the first time since every pregnancy is not the same as the previous one. This feeling of baby blues is even more common nowadays considering the hectic and modern lifestyle where both males and females are working or when child is being raised by a single parent.

In case of when a child via surrogacy or adoption is accepted and also when LGBTQIA+ identifying couples too have kids via surrogacy or adoption because in this case due to the society's undue pressure and stereotype already causes a lot of stress over which they even have to navigate through understanding the child's needs and also to create a harmonized dynamic amongst themselves though this is not postpartum depression but they too experience intense anxiety, nervousness and even stress which can turn into depression or even anxiety disorder in some cases and can cause extreme stress to people's physical and psychological health as well.

PPD is a major health issue for many women from diverse cultures and has well-documented health consequences for the mother, child, and family. Randomized controlled trials (RCTs) evaluating interpersonal psychotherapy, cognitive-behavioral counselling with antidepressants (ADs), health visitor-led nondirective counselling and nurse-facilitated support groups have suggested that PPD is amenable to treatment.

When the symptoms get too serious then professional help must be taken there must be no hesitation in approaching for such help. There are a lot of ways to treat this problem ranging from counselling to cognitive-behavioural therapy {CBT} to prescribing medications like anti-depressant and lastly in extreme cases hospitalization is prescribed. In the contemporary times due to a lot of celebrities coming out and speaking about their experiences of PPD like Chrissy Teigen, Sarah Michelle Geller and many other prominent personalities a lot more attention is being paid to this issue. Today there are also numerous Self-Help Groups both in the offline real world and online on social networking sites like Frida Mom etc. which are giving space for both women and men who suffer through Postpartum Depression.

Some of the contemporary biological interventions for PPD are; Antidepressant (AD) Medication, hormonal interventions, DHA, thyroid function and calcium supplementation.

According to research studies, which did a naturalistic follow up study of 20 women with initial episodes of PPD who went on to have 33 more pregnancies, 6 mothers (30%) developed 8 subsequent incidences of PPD, suggesting that the risk of subsequent PPD occurring among women is approximately 1 in 4. It has been hypothesized that administration of AD medication to asymptomatic women in the immediate postpartum period may prevent recurrent episodes of PPD. Wisner and colleagues [29] conducted a quasi-experimental study to see the efficacy of AD on PPD it was found that its effects were limited especially in the case of controlling the recurrent episode of PPD.

During pregnancy the female body goes through a series of physical changes these include the maternal pituitary gland, thyroid and parathyroid glands, and pancreatic cells all increase in size during pregnancy. In addition, there are increases in gluco-corticoid, mineralocorticoids, rennin, angiotensin, and androgens. The primary endocrine abnormalities can be accompanied by mood changes (for example, hyper- and hypothyroidism and diabetes mellitus). Thus, hormonal therapies like estrogen and progesterone therapies are very common for females along with thyroid and calcium supplementation as they help in building up and strengthening of the female body thus also bringing in hormonal balance which leads to better mood, strength and resilience both physically and psychologically as well [30].

On the other hand some of the psychological interventions used for PPD are: CBT, Psychodynamic therapy, interpersonal therapy and general counselling given to the clients based on their symptoms and severity of the problem.

Among mental health problems, PPD offers a unique opportunity for prevention. It occurs within a limited time frame following a very concrete event (i.e., childbirth), and it is preceded by an equally definable experience (i.e., pregnancy) during which women are in regular contact with the health care system. For these reasons, there has been great interest in prevention of PPD.

Prevention programs can be divided into three large categories, universal (all pregnant women), selective (presence of purported risk factors such as primiparity or low SES), and indicated (presence of depressive symptoms but no diagnosis) prevention. Numerous reviews have been undertaken of this literature and have come to mixed conclusions. There was some evidence in the literature for postpartum professional support and that interventions aimed at high-risk populations tended to show better preventive effects. Two recent reviews of prevention in major depression [31] which included several prevention trials with postpartum women, come to a much more positive conclusion regarding the efficacy of prevention of major depression.

Lara et al. [32] in a trial conducted in Mexico City, evaluated a psycho-education intervention (eight two-hour weekly sessions) compared to usual care with women who were experiencing moderate levels of depressive symptoms during pregnancy. Women in the CBT group had a significantly lower incidence of depression over the course of the trial, but there were no significant differences in depressive symptoms between conditions. A significant limitation of this trial was that attrition was over 50%, which limits the generalizability of its findings.

Finally, in a large-scale Canadian trial (N = 701), Dennis et al. [20] evaluated the effectiveness of peer support provided by women who had previously suffered from PPD in comparison with usual care. Women early in the postpartum period who had an EPDS score >9 were eligible for participation. Women in the peer support condition had significantly lower EPDS scores at 12 weeks postpartum, but the difference was only one point on the scale.

A recent study of universal prevention deserves special note [33]. This cluster randomized trial was undertaken in the same context as the Morrell et al. [34] treatment trial, which was discussed previously. Women who were not eligible for the treatment trial (EPDS <12 at six weeks postpartum) and who consented to participate in ongoing assessments (EPDS and other measures) were followed for 18 months postpartum. Among these women, 83 of 767 (10.8%) in the usual care clusters versus 113 of 1,474 (7.7%) in the intervention group clusters (person-centered counseling or CBT-based counselling) had an EPDS score  $\geq 12$  at six months postpartum



(OR = 0.68; 95% CI = 0.50-0.93), indicating that well women in the intervention cluster were significantly less likely to become depressed than women in the usual care cluster. Mean EPDS scores were significantly different in the predicted direction as well, though by less than one point [35-40].

What is noteworthy is that these women were well at the time of study entry and no specific intervention was delivered to the women in the intervention group clusters, except that they were being cared for by a Health Visitor who had been trained in basic counselling skills and in detection of PPD. The authors argued that actually more women in absolute numbers benefited from the universal prevention trial [33] than from the intervention trial with depressed women [34]. These findings suggest that making systemic changes to health care provision to postpartum women without regard to their depression status might have important public health effects in reducing the incidence of depression in the postpartum period.

Thus, the literature suggests the possibility of intervening early with symptomatic women to prevent the development of symptoms into a major depressive episode. Because women are in regular contact with health care providers during pregnancy, it is an ideal time to identify those women who are symptomatic and to address their symptoms directly in pregnancy and to carry over these interventions into the postpartum period. These interventions could be carried out in individual sessions, group sessions, or even in online individual and group sessions.

When we as a society are heading towards new and unexplored roads and achieving new milestones then it's time that we become more sensitive to the concept of mental distress or mental disorder in an even more severe scenario and also accept that PPD or Postpartum Depression too is a serious problem symptoms of which can range from mild to severe and any one suffering through it are not crazy or irresponsible rather they are not able to express their love and care towards the baby because they are emotionally and physically too exhausted and have confused thoughts and feelings. Therefore, we must be attentive to these signs and symptoms and provide unconditional love and support [41-50].

## REFERENCES

- American Psychiatric Association (2013) Diagnostic and Statistical Manual of Mental Disorders Text Revision. Washington, DC.
- Moraes GP de A, Lorenzo L, Pontes GAR, Montenegro MC, Cantilino A (2017) Screening and diagnosing postpartum depression: When and how? Trends Psychiatr Psychother 39.
- Stewart DE, Vigod S (2016) Postpartum depression. N Eng J Med 375: 2177-2186.
- Salisbury AL, Lester BM, Seifer R, LaGasse L, Bauer CR, et al. (2007) Prenatal cocaine use and maternal depression: Effects on infant neurobehavior. Neurotoxicol Teratol 29: 331-340.
- Da Silva Moraes IG, Pinheiro RT, da Silva RA, Horta BL, Sousa PLR, et al. (2006) Prevalência da depressão pós-parto e fatores associados. Revista de Saude Publica 40.
- Howell EA, Mora PA, Dibonaventura MD, Leventhal H (2009) Modifiable factors associated with changes in postpartum depressive symptoms. Arch Womens Ment Health 12: 113-120.
- Segre LS, O'Hara MW, Arndt S, Stuart S (2007) The prevalence of postpartum depression. Soc Psychiatr Psychiatr Epidemiol 42: 316-321.
- Rich-Edwards JW, Kleinman K, Abrams A, Harlow BL, McLaughlin TJ, et al. (2006) Socio demographic predictors of antenatal and postpartum depressive symptoms among women in a medical group practice. J Epidemiol Commun Health 60: 221-227.
- Jiang L, Wang ZZ, Qiu LR, Wan GB, Lin Y, et al. (2014) Psychological intervention for postpartum depression. J Huazhong Univ Sci Technol Med Sci 34: 437-442.
- Blom EA, Jansen PW, Verhulst FC, Hofman A, Raat H, et al. (2010) Perinatal complications increase the risk of postpartum depression. BJOG 117: 1390-1398.
- Vik T, Grote V, Escibano J, Socha J, Verduci E, et al. (2009) Infantile colic, prolonged crying and maternal postnatal depression. Acta Paediatr 98: 1344-1348.
- Adams S, Montgomery P, Mossey S, Bailey PH (2012) Stories of women involved in a postpartum depression peer support group. Int J Mental Health Nurs 21: 524-532.
- Carter FA, Frampton CMA, Mulder RT (2006) Cesarean section and postpartum depression: A review of the evidence examining the link. Psychosom Med 68: 321-330.
- Avan B, Richter LM, Ramchandani PG, Norris SA, Stein A (2010) Maternal postnatal depression and children's growth and behavior during the early years of life: Exploring the interaction between physical and mental health. Arch Dis Child 95: 690-695.
- Teti DM, Gelfand DM (1991) Behavioral competence among mothers of infants in the first year: The mediational role of maternal self-efficacy. Child Dev 62: 918-929.

16. Ingram JC, Greenwood RJ, Woolridge MW (2003) Hormonal predictors of postnatal depression at 6 months in breastfeeding women. *J Reprod Infant Psychol* 21: 61-68.
17. Salmela-Aro, Saisto TK, Nurmi JE, Halmesmäki E (2001) Psychosocial predictors of disappointment with delivery and puerperal depression: A longitudinal study. *Acta Obstet Gynecol Scand* 80: 39-45.
18. Arteche A, Joormann J, Harvey A, Craske M, Gotlib IH, et al. (2011) The effects of postnatal maternal depression and anxiety on the processing of infant faces. *J Affect Disord* 133: 197-203.
19. Flanagan TJ, White H, Carter BG (2011) Differential impairments in emotion face recognition in postpartum and non-postpartum depressed women. *J Affect Disord* 128: 314-318.
20. Dennis CL, McQueen K (2009) The relationship between infant-feeding outcomes and postpartum depression: A qualitative systematic review. *Pediatrics* 123: 736-751.
21. Zajicek-Farber ML (2009) Postnatal depression and infant health practices among high-risk women. *J Child Fam Stud* 18: 236-245.
22. Field T (2010) Postpartum depression effects on early interactions, parenting and safety practices: A review. *Infant Behav Dev* 33: 1-6.
23. Cadzow SP, Armstrong KL, Fraser JA (1999) Stressed parents with infants: Reassessing physical abuse risk factors. *Child Abuse Negl* 23: 845-853.
24. Goodman JH (2011) Paternal postpartum depression, its relationship to maternal postpartum depression and implications for family health. *J Adv Nurs* 45:26-35.
25. Murray L, Cooper PJ (1996) The impact of postpartum depression on child development. *Int Rev Psychiatr* 8: 55-63.
26. Brand SR, Brennan PA (2009) Impact of antenatal and postpartum maternal mental illness: How are the children? *Clin Obstet Gynecol* 52: 441-455.
27. Grace SL, Evindar A, Stewart DE (2003) The effect of postpartum depression on child cognitive development and behavior: A review and critical analysis of the literature. *Arch Women's Ment Health* 6: 263-274.
28. Sohr-Preston SL, Scaramella LV (2006) Implications of timing of maternal depressive symptoms for early cognitive and language development. *Clin Child Family Psychol Rev* 9: 65-83.
29. Wisner KL & O'Hara MW (2000) Perinatal mental illness: Definition, description and aetiology. *Best Pract Res Clin Obstet Gynaecol* 28: 3-12.
30. Abraham AJ (2008) Correlating health locus of control and risk for postpartum depression. ProQuest Dissertations and Theses.
31. Cuijpers P, Brannmark JG, van Straten A (2008) Psychological treatment of postpartum depression: A meta-analysis. *J Clin Psychol* 64: 103-118.
32. Le HN, Lara MA, Perry DF (2008) Recruiting Latino women in the U.S. and women in Mexico in postpartum depression prevention research. *Arch Women's Ment Health* 11: 159-169.
33. Brugha TS, Sharp HM, Cooper SA, Weisender C, Britto D, et al. (1998) The Leicester 500 Project. Social support and the development of postnatal depressive symptoms, a prospective cohort survey. *Psychol Med* 28: 63-79.
34. Morrell J, Dennis CL, Brown HK (2016) Interventions (other than psychosocial, psychological and pharmacological) for preventing postpartum depression. *Cochrane Database Syst Rev*.
35. Appleby L, Warner R, Whitton A, Faragher B (1997) A controlled study of fluoxetine and cognitive behavioral counseling in the treatment of postnatal depression. *BMJ* 314: 932-936.
36. Augusto A, Kumar R, Calheiros JM, Matos E, Figueiredo E (1996) Postnatal depression in an urban area of Portugal: comparison of childbearing women and matched controls. *Psychol Med* 26: 135-141.
37. Ban L, Gibson JE, West J, Tata LJ (2010) Association between perinatal depression in mothers and the risk of childhood infections in offspring: A population-based cohort study. *BMC Public Health* 10: 799-806.
38. Banti S, Mauri M, Oppo A, Borri C, Rambelli C, et al. (2011) From the third month of pregnancy to 1 year postpartum. Prevalence, incidence, recurrence and new onset of depression. Results from the Perinatal Depression-Research & Screening Unit Study. *Comp Psychiatr* 52: 343-351.
39. Beck CT (2001) Predictors of postpartum depression: An update. *Nurs Res* 50: 275-285.
40. Brummelte S, Galea LAM (2016) Postpartum depression: Etiology, treatment and consequences for maternal care. *Horm Behav* 77: 153-166.
41. Cramer B, Robert-Tissot C, Stern DN, Serpa-Rusconi S, De Mural M, et al. (1990) Outcome evaluation in brief mother-infant psychotherapy: A preliminary report. *Infant Ment Health J* 11: 278-300.

42. Cox JL, Murray D, Chapman G (1993) A controlled study of the onset, duration and prevalence of postnatal depression. *Br J Psychiatr* 163: 27-31.
43. Dias CC, Figueiredo B (2015) Breastfeeding and depression: A systematic review of the literature. *J Affect Disord* 15: 142-154.
44. Doucet S, Dennis CL, Letourneau N, Blackmore ER (2009) Differentiation and clinical implications of postpartum depression and postpartum psychosis. *J Obstet Gynecol Neonatal Nurs* 38: 269-279.
45. Mauri M, Borri C, Cargioli C, Miniati M, Banti S (2016) Psychiatric disorders during the postpartum period in light of current advances: Postpartum depression.
46. O'Hara MW, McCabe JE (2013) Postpartum depression: Current status and future directions. *Ann Rev Clin Psychol* 9: 379-407.
47. Olin SCS, Kerker B, Stein REK, Weiss D, Whitmyre ED, Hoagwood K, et al. (2016) Can postpartum depression be managed in pediatric primary care? *J Wom Health* 25: 381-390.
48. Paulson JF, Bazemore SD (2010) Prenatal and postpartum depression in fathers and its association with maternal depression: A meta-analysis. *JAMA* 303: 1961-1969.
49. Pawluski JL, Lonstein JS, Fleming AS (2017) The neurobiology of postpartum anxiety and depression. *Trends Neurosci* 40: 106-120.
50. Pearlstein T, Howard M, Salisbury A, Zlotnick C (2009) Postpartum depression. *Am J Obstet Gynecol* 200: 357-364.