Maternal Postpartum Depression: Diagnosis, Risk Factors and Intervention

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Abstract
Postpartum depression is a serious condition that has concerning implications on the health of both mother and child, also raising special considerations regarding diagnosis and treatment. Therefore, the present paper has the goal of synthesizing the main information with respect to this disorder, by presenting some brief guidelines for setting properly the diagnostic of postpartum depression, identifying the potential risk factors for developing this condition, and understanding the most important aspects regarding pharmacologic and psychotherapeutic interventions.

Keywords: postpartum depression, mood change, diagnosis, pharmacotherapy, psychotherapy, cognitive behavioral therapy, interpersonal therapy

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I. INTRODUCTION

Postpartum depression is described in DSM-5 (APA, 2013) as a serious condition and disability that has a significant impact on general and mental health of the mother, having the potential of leading to tragic results, including suicide; the condition is defined as problematic, but treatable with suspected but not defined causes, symptoms and treatment to reduce distress. (Regus, 2012).

The occurrence of postnatal depression as a treatable disease extended medical examination beyond physical appearance, to include psychological and emotional issues (Regus, 2012). However, in the scientific community there is a lot of concern regarding medical diagnosis and treatment of postnatal depression, whose symptoms resemble to normal postnatal period: lack of sleep, weight loss, fatigue, exhaustion, appetite changes - whose treatment usually include psychiatric counseling and antidepressant or a combination of both (e.g., Puckering 2005)

Some specialized books suggest that the higher number of women than men diagnosed with depression is the result of medicalization of women’s emotional stimuli (Regus, 2007). The medicalization of women's issues seems to be more and more visible in the events of life such as birth, PMS, menopause and an increased postpartum depression, among other issues, and tends to pathologize women and "reframes experiences, lives and bodies of women" (Haritty & Tiefer 2003). Stoppard (2000) says that women, more than men, are socialized to use coping strategies such as solicitude / tolerance and negotiation, which are often characterized as passive in the psychiatric field, also being centered on emotions and involving problems avoidance. Bilirakis (2004) suggests that hormonal factors contribute to an increased rate of depression among women, which is a rate of about two times higher than among men. Stoppard and McMullen (2003) emphasizes the social causes to justify the rising rate of depression among women, arguing that women's depression is caused by cultural prescription of "good mothers" that stop women from expressing any negative feeling about the maternity.

Postpartum depression is an important health issue for many women (Stewart et al., 2003), often under-diagnosed, either because of lack of adequate screening or because of inability of women to share environmental close social real feelings to them (Murray & Cooper, 1999). Therefore, the early identification is one of the most important drawbacks with regard to the emotional disorder. Provided interventions / existing in this case varies depending on the severity of the disorder and the mother preferences antidepressants, psychotherapy, support / support, or a combination thereof (Leahy, Warren & McCarthy, 2007).
II. DIAGNOSIS

1. Diagnosis criteria

Shortly after childbirth, numerous mothers, approximately 80% according to some estimates (e.g., Friedman, as cited in Nevid, Rathus & Greene, 2014) experience what is commonly called “maternity blues”, postpartum blues” or “baby blues” – a mood change associated with depression-like symptoms such as sleepless nights, crying spells, anxiety, fatigue, and sadness, that generally disappear within a few days or weeks after onset, without special intervention (Reevy et al., 2010).

However, the range of symptoms following delivery of a child varies widely, and the range of severity differs even more from person to person. Thus, some women have to cope not only with “baby blues” symptoms, but with a full major depressive syndrome (Mondimore, 2006). Therefore, postpartum depression, is a more serious condition that threatens both mother’s and infant’s health (Stevens, 2009).

As defined in the “postpartum onset specifier” from DSM-IV-TR (APA, 2000), its features generally fit the criteria for major depression, the difference consisting in the fact that the symptoms appear within 4 weeks postpartum. Moreover, as in the case of non-postpartum mood episodes, the disorder may also include psychotic features, suicidal ideation, obsessional thoughts, lack of concentration, psychomotor agitation, and very often - severe anxiety, panic attacks, spontaneous crying long after the usual duration of "baby blues" (i.e., 3-7 days postpartum), disinterest in their new infant, and insomnia (more likely manifested as difficulty falling asleep than as early morning awakening) (APA, 2000). Also, many women may experience pronounced feelings of guilt about being depressed, taking into account especially that these symptoms are not consistent with the way they think they should feel in this period (APA, 2000).

In DSM-5 (APA, 2013), the features of postpartum depression are presented in the “peripartum onset” specifier for depressive mood. This specifier can be “applied to the current or, if full criteria are not currently met for a major depressive episode, the most recent episode of major depression if onset of mood symptoms occurs during pregnancy or in the 4 weeks following delivery.” (APA, 2013, p.186).

According to DSM-5 (APA, 2013), the diagnosis of major depressive disorder should be made if the following criteria are met:
“A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning: at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.
1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, hopeless) or observation made by others (e.g., appears tearful).

2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation).

3. Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. (Note: In children, consider failure to make expected weight gain.)

4. Insomnia or hypersomnia nearly every day.

5. Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down).

6. Fatigue or loss of energy nearly every day.

7. Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).

8. Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others).

9. Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.

B. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

C. The episode is not attributable to the physiological effects of a substance or to another medical condition.

D. The occurrence of the major depressive episode is not better explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, delusional disorder, or other specified and unspecified schizophrenia spectrum and other psychotic disorders.

E. There has never been a manic episode or a hypomanic episode.” (APA, 2013, p. 160-161).

As a result of this disorder, it is highly probable for some women to have difficulties in maintaining a healthy interaction with their children whom psychical and psychological health can therefore be at risk (Reevy et al., 2010). The disturbances that characterize the relation between the depressed mothers and their infants seem to be universal across different cultures and socioeconomic status groups, and include less sensitivity of the mothers associated with less responsivity of the infants, as well as impaired caregiving activities such as feeding practices, most especially breastfeeding, sleep routines, vaccinations or safety practices (Field, 2010). Moreover, a depressed mother has difficulties in perceiving properly her child’s attempts to communicate with her (smiles, cries, gestures etc.) and, as a consequence, the child quits trying to connect with her – for example, infants of depressed mothers establish visual contact with
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their mothers less often and show fewer signs of positive emotion compared to infants of healthy mothers, and may even present characteristics of learned helplessness (Gaschler, 2008).

2. Challenges in setting the diagnostic of postpartum depression

Differentiating the normal problems associated both with childbirth and taking care of an infant, from genuine symptoms of postpartum depression can be very problematic, given the resemblance and overlapping between them. Thus, many parents may experience somatic and emotional symptoms such as fatigue, anxiety, change in appetite due to the requirements that come with having a baby, and not due to mental health issues (e.g., Nonacs et al., 1998).

Therefore, considering these complications it is essential for a clinician to know and to be able to recognize the specific signs that go beyond the troubles of parenting, indicating a case of depression, such as anhedonia, feelings of guilt, hopelessness, suicidal thoughts - even if the risk of committing suicidal acts is highly decreased during pregnancy (Appleby, 1991).

For example, in order to correctly assess sleep disturbance in new mothers, it may be useful for the clinician to ask about the mother’s ability to easily rest or sleep when she has the chance to, a clue for postpartum depression being that the mother has such high levels of anxiety that impairs her to rest or return to sleep even after the child has calmed down during the night (Robertson, Celasum & Stewart, 2008). The same authors recommend that when dealing with alterations in body mass it is important to ask about the woman’s desire for food and eating pleasure. As far as libido is concerned, the issue should be approached by expanding the issue by also taking into account the acceptance of affection (Robertson et al., 2008).

3. Edinburgh Postnatal Depression Scale (EPDS)

One of the most common used scales for screening postpartum depression is Edinburgh Postnatal Depression Scale (EPDS) developed by Cox et al. (1987) to help medical doctors to detect women suffering from postpartum depression. The scale was designed and tested in breast health centers in Livingston and Edinburgh and consists of 10 questions. Tested woman must choose one answer out of four possible ones, in order to describe how they felt last week. The scores are between 0-30, the maximum score is 30 and a score above 10 reveals a possible depression. The score above 13 suggests a moderate to severe depression in terms of severity. The assessor should examine carefully especially the question number 10 which is designed to identify suicidal thoughts. Validity studies show that EPDS scale correctly identifies about 92.3% of women suffering from postpartum depression. EPDS scale is proved to be a very robust tool in order to detect women at risk of postpartum depression and is used extensively in screening activities. It was used in different cultural spaces and it is already proved to have a
good sensitivity (86%), specificity (78%) and predictive value (73%). However it cannot replace a competent clinical examination.

The unique quality of the EPDS, compared to other scales measuring depression, is not addressing depression based on symptoms that are common to a large number of new mothers, such as loss of energy, fatigue, changes in appetite and decrease of sexual desire.

Mothers who score above the benchmark set are mothers who have postpartum depression. Cox et al. (1987) at first recommended a reference score ≥12 as an indicator of depression, but new benchmark score ≥ 10 started to be used in order to screen women communities. The EPDS scale has shown good psychometric properties (Berle, Aarre, Dahl & Holst, 2003; Eberhard-Gran, Eskild, Tambs & Schei, 2001).

III. CAUSES AND RISK FACTORS

The causes of postpartum depression have not yet been fully identified and understood, but the specialized literature abounds in papers that address this issue by presenting numerous potential biological and psychological factors that may predispose women to develop this condition.

One of the most popular theories that tried to explain the etiology of postpartum depression has linked the dramatic hormonal changes that happen in women’s body during and after childbirth, with the mood changes specific to this condition.

One hypothesis states that during childbirth, the female’s body experience elevated levels of physical stress such as increased pain or blood loss, which stimulates the production of high levels of cortisol and other steroids that may be responsible for the euphoria seen immediately after delivery. However, when these levels decrease, an opposite effect may occur and a negative mood change is thus observed – in some women this may be limited to the transient “baby blues”, while in others the biological events may go further, causing more profound changes in the brain chemistry and so producing symptoms of major depression (Mondimore, 2006). Others hormones that were speculated to contribute to the onset of postpartum depression were estrogen and progesterone whose levels during pregnancy reach values up to 50 times higher above normal, in order for them to decline back to the initial values in a short amount of time after birth (in 48 hours) (e.g., Bloch, Daly & Rubinow, 2003).

As a counterargument to the hormonal hypotheses comes the fact that, although all mothers experience significant biochemical fluctuations, only some of them become depressed, which is a clue that other factors are associated as well with this disorder. In fact, the majority of research has showed no connection between levels of estrogen or decrease in estrogen and postpartum depression, and also no consistent results regarding the change in progesterone and
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cortisol (Stevens, 2009). However, the research regarding the possible neuroendocrine factors underlying postpartum depression is still in progress, as the interaction between hormones and neurotransmitters such as monoamine oxidases (MAOs), serotonin, and norepinephrine, which have proved to be implicated in postpartum depression, has been known (Yonkers, Vigod & Ross, 2012).

According to American Psychiatric Association (2000), the risk for a postpartum mood disorder is high in women who have a past personal history of mood disorder that is not related to pregnancy, as well as a family history of mood disorders. Moreover, previous research has shown that mood and anxiety symptoms during pregnancy, as well as the “baby blues” increase the risk for the occurrence of a postpartum major depressive episode (American Psychiatric Association, 2013). Moreover, prior postpartum mood episodes, prior history of a depressive or bipolar disorder (especially bipolar I disorder), as well as a family history of bipolar disorders represent risk factors that heighten the chances for postpartum episodes with psychotic features, such episodes being also more common in primiparous women (American Psychiatric Association, 2013). More precisely, according to DSM-5 (APA, 2013), once a woman has had a postpartum episode with psychotic features, the risk of her re-experiencing it with each subsequent delivery is between 30% and 50%.

Besides these factors, the demands that come along with being a mother also seem to have a role in the development of a postpartum depressive disorder. A new mother might feel overwhelmed by the duties of taking care of a baby that often lead to sleep deprivation, and exhaustion, being sometimes also associated with emotional troubles such as anxiety or regret for the loss of the life they had before becoming a parent, all of these increasing the risk for depression (Gaschler, 2008). Also, as Nevid et al. (2014) synthesized, being a single or first-time mother, having financial problems or a troubled marriage, suffering domestic violence, lacking social support from partners and family member, or having unwanted, sick, or temperamentally difficult infants, have proved to be risk factors for this disorder. Moreover, women who have experienced stressful life events (e.g., divorce, death in the family, moving, change in employment) within 12 months after childbirth are more prone to become depressed (Reevy et al., 2010).

IV. PHARMACOLOGIC AND PSYCHOTHERAPEUTIC INTERVENTION

Treatments for postpartum depression are similar to the ones applied in the case of non-postpartum depression and consist of a wide range of strategies and methods, varying from changes in lifestyle and community interventions (e.g., support groups) to traditional pharmacotherapies and psychotherapies, depending on the severity of the disorder.
However, in the case of depressed new mothers, choosing the most appropriate intervention raises supplementary difficulties, as the infant may be directly exposed to harmful factors due to treatment, the most concerning issue being the effects of medication on the baby’s health as a result of breastfeeding (e.g., Newport et al., 2002).

These concerns can lead to hesitation when it comes to pharmacologic treatments, although they showed significant efficacy in alleviating depression, being required especially when the symptoms are moderate and severe. Besides, using antidepressants does not necessarily imply stopping breastfeeding as most of them seemed to lead to minimal risks of adverse effects in babies, and actually both tricyclics and selective serotonin-reuptake inhibitors including amitriptyline (Elavil), nortriptyline (Pamelor), imipramine (Tofranil), sertraline (Zoloft), and paroxetine (Paxil) were not detected in significant amounts in breastfed infants, as some research has suggested (e.g., Wisner et al., as cited in Stevens, 2009).

Freeman (2012) presented a review of the effects of antidepressants in breastfeeding women and concluded that:

- Tricyclic antidepressants could be considered reasonable for breastfeeding if use is clinically warranted, few adverse effects in infants and generally low levels of exposure being identified;
- Paroxetine showed consistently across relatively numerous studies, that it implies low levels of exposure via breastfeeding; however, its use is reduced do to withdrawal symptoms and sedating effects;
- Sertraline was also extensively studied and the reports consistently revealed low levels of exposure;
- Citalopram, escitalopram and Bupropion proved low levels of exposure but the research was scarce.
- Mirtazapine, nefazodone, MAOIs, duloxetine were not studied in humans in the context of breastfeeding.
- Fluoxetine is more likely to be found in infant’s serum, especially when the doses that the mother takes are higher.

Alwan et al. (2007) examined the safety of using selective serotonin-reuptake inhibitors (SSRIs) in human pregnancy by analyzing the case of 9622 infants with major birth defects and 4092 control infants born from 1997 through 2002, in relation to mothers’ exposure to potential risk factors, including medication, before and during pregnancy. The results indicated that the administration of SSRI during early pregnancy was not associated with the risk of developing congenital heart defects in babies; the relationships were significant only in the case of anencephaly, craniosynostosis and omphalocele but the absolute risks were small.
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In conclusion, despite the availability of relatively safe pharmacologic options, special care should be taken when deciding to utilize antidepressants in the treatment of mothers suffering from postpartum depression who still breastfeed (Freeman, 2012). Fluoxetine (Prozac), citalopram (Celexa) and bupropion (Wellbutrin) are typically recommended only when the potential advantages overcome the risks of harming the baby (Stevens, 2009). Sertraline and paroxetine have been the most widely studied in regard to breastfeeding, and both proved to imply low risks of adverse effects in babies; however, sertraline is better tolerated by mothers and therefore is preferable before paroxetine, especially if the mother has not taken any antidepressants before (Freeman, 2012). Also, tricyclic and SSRIs proved to be relatively safe (Stevens, 2009).

However, considering the concerns regarding medication, as well as the psychological factors implicated in postpartum depression, psychotherapy should also be included on the list of recommendations, as an adjuvant treatment, or if the symptoms are mild enough, as an alternative treatment to medication. In fact, research has shown (e.g, Bledsoe & Grote, 2006; Chabrol, & Callahan, as cited in Stevens, 2009) that CBT combined with medication, as well as psychological treatment alone (interpersonal psychotherapy, CBT, group therapy with CBT or other components – educational, transactional analysis etc.) could have a significant contribution in alleviating symptoms of postpartum depression.

The cognitive model of depression stresses that the cognitive schemas triggered by life events lead to a biased processing of the stimuli around, making the person to have a distorted global negative perspective of reality, that further activates the symptoms of depression such as sadness, hopelessness, loss of motivation, social withdrawal, inactivity; these symptoms are also negatively evaluated in a personally manner, trapping the person in a feedback loop of negative interpretations, attentional biases and reinforced symptoms of depression (Beck, 2008). Some of the recommended cognitive-behavior therapy techniques for depression are: identification, questioning and correction of automatic thoughts and negative beliefs; cognitive restructuring; distraction techniques; behavioral experiments; activity scheduling; graded-task behavioral assignments (Holdevici, 2011).

Pregnancy and becoming a mother are life-events that could easily trigger a series of negative cognitions regarding own qualities, own present and future well-being, personal relationships etc., as they come with important changes at different personal levels (physiological, psychological, social, lifestyle etc.).

CBT has been extensively researched in the context of depression, and numerous meta-analyses and studies, including randomized-controlled trial ones, have proved its efficiency across various populations (for a review see Epp & Dobson, 2009). Postpartum depressive episode is similar to one unrelated to pregnancy, and therefore the therapeutic approach does not
differ significantly from the usual protocol for depression (Bledsoe & Grote, as cited in Dobson & Dobson, 2009), consistently showing its efficiency. Briefly, during CBT sessions, women with postpartum depression learn how to change their negative thoughts about themselves, the world and the future, and the treatment is often combined with psychoeducation about the implications of having a baby, or ways of changing the environment in order to manage effectively the new challenges (Weiner & Craighead, 2010). The maladaptive cognitions especially approached are the ones specific to the new role and responsibilities as a woman and new mother and the relapse prevention plan should include certain strategies for diminishing the vulnerability for future episodes, especially in the context of future pregnancies (Gilson et al., 2009).

Apart from CBT, another popular and effective therapy for postpartum depression is Interpersonal Psychotherapy (IPT), considering that depressed new mothers have been shown to have numerous problems in their interpersonal relations (Stuart & O’Hara, 1995). IPT is a time-limited (12-16 weeks) treatment consisting of three phases: a beginning phase (1-3 sessions) that requires the therapist to establish the target diagnosis (MDD) and the interpersonal context related to it; a middle phase in which the therapist applies specific strategies to deal with the client’s problems; and an end phase (3 sessions) in which the therapist prepares and client for the termination of the therapy, helping him to feel more capable and independent (Markowitz & Weissman, 2004). The defining characteristic of IPT that distinguishes it from other approaches is the special focus on the client’s current relationships that are thought to be connected with the target diagnosis, as he has to struggle with one or more of the following problems: a complicated bereavement, a role dispute, a role transition or interpersonal deficits (Markowitz & Weissman, 2004). Thus, in the case of postpartum depression, the therapy approaches the problems significant in the context of pregnancy and childbirth, including role transitions and interpersonal disputes, the goal being to reduce depressive symptomatology and enhance the mother’s adjustment to her new role (Stevens, 2009).

O’Hara et al. (2000) conducted a study on a sample of 120 postpartum depressed women who followed 12 weeks of 1-hour individual IPT sessions in a 3-phase standard approach adapted according to the particularities of the new situation of being a mother. At the end of the therapy the authors concluded that IPT significantly reduced the symptoms of postpartum depression and improved the interpersonal adjustment of these women, as compared to a waiting-list group, recommending IPT as a potential alternative to pharmacotherapy especially in the case of mothers who breastfeed (O’Hara et al., 2000).

Moreover, IPT proved its utility in reducing postpartum depression, not only in the individual therapy version, but also in group format. For example, Klier et al. (2001) designed a series of 90-minute group sessions of IPT that took place over a period of 9 weeks in order to treat 17 women with postpartum depression. The first two sessions were conducted individually,
with each patient and had the following goals: 1. reviewing the symptoms, the diagnosis and the personal history with the disorder; 2. providing the patient with explanations regarding the medical model of depression and encouraging the acceptance of the “sick role”; 3. analyzing the patient’s inventory of past and current relationships and conflicts, and also relating them with the onset and maintenance of depression; 4. identifying the most important conflict in the context of depression. The middle sessions (sessions 3–9) took place in group context and consisted of specific intervention strategies that met the patients’ needs. Also, in this phase, special attention was given to participants’ engagement, differentiation and intimacy. The final sessions (10–12) were focused on emphasizing the skills developed during the therapy, as well as on analyzing the possibility of relapse and the loss of the bonds created in the context of group activity (Klier et al., 2001). The research indicated that IPT adapted for group format had both short and long term beneficial results as far as postpartum depressive symptomatology was concerned (Klier et al., 2001).

V. CONCLUSIONS

Postpartum depression represents a serious condition that was estimated to affect 6% to 13% of women during the first year after childbirth, putting in great danger the physical and psychological health of both the mother and the infant (Stevens, 2009).

Multiple and various factors have been identified to increase the likelihood of developing postpartum depression but the causes of the disorder have not yet been well understood. The neuroendocrine underpinnings remain unclear, but there were some evidence to support this hypothesis and the research work is still in progress (Yonkers et al., 2012). A past personal or family history of mood disorder, sleep-deprivation, anxiety, lifestyle changes, financial issues, poor social support, marital problems, stress, negative events or dealing with a demanding baby have also proved to play a role in heightening the predisposition for postpartum depression (e.g., Nevid et al. 2014).

Treatment for postpartum depression is similar to the one applied in the case of non-postpartum depression and consists of psychiatric and psychotherapeutic interventions applied either separately, either in combination. However, in the case of new mothers, special considerations should be taken with regard to medication, as breastfeeding could expose the baby to some risk of harmful effects due to the chemicals found in antidepressants (Newport et al., 2002). Thus, psychotherapy represents an advantageous option as an adjuvant or alternative treatment to medication, as its efficiency has been sustained consistently across various studies. CBT and IPT are perhaps the most popular and extensively applied psychotherapies in the case of postpartum depression, as they showed significant short and long term improvements in
women’s functioning in a relatively short amount of time (e.g., Epp & Dobson 2009, O’Hara, 2000).

References


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