Risk Factors, Screening and Assessment, and Treatment Options for Mothers Experiencing Postpartum Depression

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Abstract

Postpartum depression is a mood disorder that affects more than 13% of women during a pivotal point in their lives. If risk factors are acknowledged early, screening and assessment is performed, and treatment options are made available to women promptly, then potential months of suffering silently can be prevented. Not only does postpartum depression affect women, but it has been shown to have effects on her infant and partner relationships. There are many gaps in the current literature related to this topic. This paper serves to clarify, close the gaps and synthesize the current literature. The paper explores recognition of risk factors, screening and assessment, and treatment options available to women experiencing postpartum depression.

Journal to submit to: Journal of Obstetrics, Gynecology, and Neonatal Nursing

Key Words: postpartum depression, postnatal depression, risk factors, effects on infant and partners, screening, assessment, and treatment.

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ACKNOWLEDGEMENTS

I dedicate this paper to my amazing, wonderful husband. Thank you for your tremendous support and love through all of this, words can't express my gratitude.

Thank you also to my family and friends for their support. I honestly could not have done this program without your constant support and being my biggest fans.

To Christ for allowing me this opportunity and seeing me through to the end. May my service be a joy and blessing to those I encounter.

Finally, this is dedicated the women who have suffered in silence, may we all be better clinicians.

Risk Factors, Screening and Assessment, and Treatment Options for Mothers Experiencing Postpartum Depression

Problem Statement

Postpartum depression (PPD) is a significant psychiatric mental disorder and can have great consequences for mothers during the postpartum period. According to O'Hara and Swain (1996) "the average rate of non-psychotic postpartum depression based on the results of a large number of studies is 13%" (Summary section, para. 1). The combined prevalence of perinatal depression and PPD is as high as 19.2%, most episodes occur after delivery (Gavin, Gaynes, Lohr, Meltzer-Brody, Gartlehner, & Swinson, 2005). PPD is a disorder that has similar symptoms to major depression and meets the diagnostic criteria for a depressive episode (Swendsen & Mazure, 2000). PPD occurs frequently and is a serious mental health disorder that has the potential to have harmful effects on the women and their children, if not identified and treated (Boyd, Mogul, Newman, & Coyne, 2011).

PPD has biological, psychosocial, and psychological features. PPD is common and practitioners can anticipate that one out of every eight mothers will experience PPD (Wisner, Parry, & Piontek, 2002). The reason PPD is difficult to diagnose is because it often gets confused with "baby blues" as the two can very easily overlap in symptoms. "Baby blues" is a mood disorder that can be seen in about 30-75% of mothers, usually 3-4 days after delivery, doesn't last more than two weeks, and common symptoms are mild from tearfulness to sleep disturbances (Robertson, Grace, Wallington, & Stewart, 2004). PPD usually occurs within 6 months after delivery, but may occur up to a year, can last weeks to months, and can have more severe symptoms from emotional instability to

excessive worry (Robertson et al., 2004). "The stigma associated with depression and the asynchrony between the women's expectation of bliss during a wanted pregnancy, and her symptoms of sadness and irritability cause many women to under-report these symptoms" (Marcus, 2009, p. e16). Even though most women see their healthcare providers numerous times with various visits during and after their pregnancy, these circumstances, along with the others make PPD undertreated and under recognized (Driscoll, 2006). The gap in clinical practice is found in the practitioner's ability to identify women with risk factors, properly assess, provide the current treatment options, and develop a treatment plan for women experiencing PPD. The population of interest is women from 0-12 months in the postpartum period.

Risk factors for PPD include, but are not limited to, a previous history of prenatal depression, anxiety and/or depression during pregnancy, current substance use, stressful events in the previous 12 months and during pregnancy, difficult pregnancy with maternal or fetal health issue, lack of perceived support from friends and family, lack of financial or emotional support from the partner, poor marital support, single partner, low socioeconomic status, and/or unplanned/unwanted pregnancy (Patel, Bailey, Jabeen, Ali, Barker, & Osiezagha, 2012; Beck, 2006). Women should be screened for risk factors pre-pregnancy for present risk factors and during the pregnancy for any new risks. Risk factors need to be identified early in order to identify those at risk and potentially prevent more severe problems.

Screening and assessment for PPD can be performed during pregnancy, at 4-6 weeks postpartum or at the 2 month well-child exam, and again at a subsequent appointments within the 12 months postpartum period (Horowitz, Murphy, Gregory, &

Wojcik, 2009; Patel et al., 2012). The clinical assessment is used to differentiate between "baby blues" and PPD. Blues or as it is also known as maternity blues, can be a normal response as the body experiences many physiological changes after delivery. Blues can present within days of delivery and usually resolves within 10 days. Symptoms of maternity blues are less severe than PPD and may include "…crying, irritability, fatigue, anxiety, and emotional liability" (Beck, 2006, p. 41). Baby blues do not need any formal treatment except for support and reassurance. If symptoms persist after 10 days, the provider should assess further for PPD.

The clinical assessment will include observation, physical and mental status, as well as assessing the infant and/or the partner for extra information and/or any effect from symptoms the mother may be experiencing to contribute to PPD diagnosis. Research has shown that untreated PPD can have lasting effects on the infant. Some of these effects include, but aren't limited to, a decreased sense of maternal competence thereby affecting the direct care of infant, lack of affection towards infant, developmental effects long-term and short-term including language development and behavior problems, and increased negative feelings towards their infant resulting in attachment insecurity (Hodnett, 2009). There is a real consequence for the mother and infant, if PPD goes unnoticed and untreated.

Treatment options for PPD include the first line option which is psychotherapy or second line therapy with antidepressants. Adjunctive therapy may include exercise, acupuncture therapy and/or massage, increase exposure to light, managing sleep, and receiving support from others (Patel et al., 2012; McCoy, 2011).

The etiology of PPD is still uncertain, but there are many biological, psychological, and physiological contributions that we do know occur in the postpartum period. There are many theories that have been proposed, but the origin is still unknown. A couple theories include placental steroids, autoimmune disorders, or sleep and circadian rhythm disturbances (McCoy, 2011). Progesterone and estrogen have known neural effects and when the placenta delivers these two hormones quickly drop in maternal plasma (McCoy, 2011). The current research suggests that the relationship "…between placental steroids and PPD seem to support an etiology for PPD that is at least in part related to changing estrogen and/or progesterone concentrations after birth" (McCoy, 2011, p. 129). One autoimmune condition that might be related to PPD is postpartum thyroiditis. Postpartum thyroiditis includes a period of hyperthyroid state followed by a period of hypothyroid state. Since depression is a known symptom of hypothyroidism, it is unsure if it is a coincidence or not in relation to PPD (McCoy, 2011). The last potential etiology for PPD is the disturbance of sleep and circadian rhythms that many women experience in the postpartum period. Melatonin is the hormone produced by the pineal gland, starts to increase at bedtime and peaks at 3am, and then falls upon rising from bed. Women in the postpartum period have interrupted sleep due to meeting the needs of their newborn. Therefore, since they are missing out on the normal melatonin sleep hormone production, this may be a contributor to PPD (McCoy, 2011). More research needs to be done in this area to determine the exact etiologies of PPD.

The purpose of this paper is to examine the evidence pertaining to PPD risk factors, screening and assessment, and treatment options.

Literature Review

Literature review and search strategies started with using Washington State University (WSU) online library. Several health science and psychology databases were used for this search. Databases searched were: Pubmed, CINAHL (EBSCO), ProQuest PsycINFO, Sociological Abstracts, Cochrane, and Google Scholar. The key words that were used in the search were "postpartum depression," "previous history," "postnatal depression," "risk factors," "assessment," "treatment options," "recognition," "screening," and "management." Search limitations that were used were articles within the last ten years; they were then narrowed down to articles within the last five years, and hundreds of articles were found. Articles were used from original research fifteen years ago, along with articles within the last ten years in order to obtain appropriate research articles. Finally nineteen articles were selected and reviewed for this paper. Using the key words and conceptual framework they were further narrowed down into the following categories: postpartum depression (PPD) risk factors (6 articles), screening and assessment (6 articles), and treatment options (7 articles).

Theoretical Framework

The Symptom Management Model is a middle range theory that can be used to manage symptoms, treatments, and outcomes in a holistic approach. The model has three different interactive factors: symptom experience, management strategies, and outcomes (Dodd et al., 2001). "The dimensions of the symptom management model have conceptualized relationships to one another depicted in both the original and revised model (see Figure 1) shown with bidirectional arrows" (Dodd et al., 2001, p. 669). The model also includes components of patients' lives that can affect the symptoms which

overlap and intertwine the experience, management, and outcomes. These overarching components are person, health, illness, and environment.

The model can be applied to women experiencing PPD by identifying women at risk for perceived symptoms, assessing and evaluating the symptoms, and developing a symptom management strategy treatment plan in order to improve symptom status. If a woman's symptoms can be identified and treated properly, then her quality of life can improve. This model provides a more holistic approach to PPD and takes into consideration many other factors.

Literature Review

The literature is organized into three sections: PPD risk factors, screening and assessment, and treatment options. Each section is now reviewed.

PPD Risk Factors

According to the literature review, there are thirteen significant predictors that put mothers at risk for PPD. Beck (2001) stated that "these risk factors can repeatedly weaken a mother's fault line placing her in a dangerous position for an emotional earthquake" (p. 283). In order to identify women who are at risk early, ideally in pregnancy, one needs to be aware of these thirteen risk facts. Beck's meta-analysis from a sample of 84 studies (Beck, 2001) updated the findings of a previous meta-analysis of PPD predictors (Beck, 1996). Of the thirteen risk factors, the ten that were identified as statistically significant with moderate mean effect size of r =.25-.47 were : prenatal depression, self-esteem, childcare stress, prenatal anxiety, life stress, social support, marital relationship, history of depression prenatally, infant temperament, and maternity blues (Beck, 2001). Strengths of the Beck study (2001) included confirmation of previous

findings (Beck, 1996) and identification of four new risk factors that had strong predictor values. No weaknesses were found.

In a large prospective study, 35, 374 pregnant women were scored using the Edinburgh Postnatal Depression Scale (EPDS), which is a self-rating tool that includes 10 statements related to symptoms of depression and anxiety (Milgrom et al., 2008). Of the total sample, 3,144 had an EPDS score of >12 during their antepartum period. The EPDS can be used in the antenatal period, as well as postpartum. A score greater than 12 indicates significant symptoms of PPD (Milgrom et al., 2008). In the 6th postpartum week, only 22,968 were able to complete screening. A total of 925 (7.5%) scored >12 on the EPDS. Milgrom et al. (2008) found that "postnatal response rates were very similar irrespective of whether women had scored above or below the EPDS cut-off at antenatal screening (p. 151). The risk factors found were similar to previous studies that reported the following: antenatal EPDS score (p=<.0001); previous psychiatric condition (p=<.0001); antenatal emotional problems (p=<.01); level of daily hassle (p=.26), high versus moderate (p=<.05), minimal versus moderate (p=<.05); perfectionism (p=<.05); high versus moderate partner support (p=<.01), minimal versus moderate (p=.95), no partner versus moderate (p=.11) (Milgrom et al., 2008). The strongest independent risk factors found were "antenatal depression with a prior history of depression and a low level of partner support were the strongest independent antenatal predictors of a postnatal EPDS score >12" (p. 147). The strengths of this research were confirmation of previous research findings along with two strong independent risk factors. Limitations were the use of EPDS measuring symptoms of depression versus an actual clinical diagnosis, and the low response rate of follow-up between the two collection points.

In a cross-sectional study of 326 women (Kara, Unalan, Cifcili, Cebeci, & Sarper, 2008), 163 were 1-3 months postpartum and 163 had not been pregnant in the previous year. The aims were to assess the prevalence of depression in a group of postpartum mothers and compare them with women who weren't pregnant, identify risk factors for depression in both groups, and examine the effects of PPD on breastfeeding in postpartum mothers (Kara et al., 2008). The statistically significant risk factors for depressive symptomology that were greater in the postpartum group, compared to the non-postpartum group were: women with poor economic status ($p= 0.015$), women who delivered in government hospitals (in Turkey) ($p = 0.003$), premenstrual tension ($p = 0.04$), and history of depression ($p = 0.001$) (Kara et al., 2008). Strengths of the study were the identified statistically significant risk factors for PPD. The weakness was the use of a different tool (Beck's Depression Inventory, BDI) to measure PPD; thereby, the findings were not comparable to many studies that used the Edinburgh Postnatal Depression Scale or Patient Health Questionnaire (PHQ-2). Beck (2001) stated that "…early identification and treatment can alleviate months of suffering from postpartum depression for a woman and minimize its potentially harmful effects on her infant" (p. 275). It is imperative that at risk women be identified early in order to provide appropriate screening and assessment and treatment.

Screening and Assessment

Screening and assessment of PPD should include a clinical interview to assess a patient's risk factors, past medical and social history, as well as birth history. Assessment and screening should occur pre-pregnancy, during the intrapartum period, at 4-6 weeks postpartum or at the 2 month well-child exam, and again at an appointment

within the 12 months postpartum (Horowitz et al., 2009; Patel et al., 2012). The screening may be done at a pediatrician's office, family practice office, or obstetrics and gynecology office. There are many tools available to screen for depressive symptoms. Boyd, Le, and Somberg (2005) reviewed eight self-reported instruments with the aim to evaluate internal consistency, test-retest reliability, and split-half reliability. The inclusion factors for each of the tools reviewed were: if they were self-report measures; if they assessed for depressive symptoms after 2 weeks postpartum; and had published psychometric data with postpartum women (Boyd et al., 2005). Boyd et al. (2005) reviewed the following eight tools:

> Beck Depression Inventory (BDI, BDI-II), Bromley Postnatal Depression Scale (BPDS), Center for Epidemiological Studies Depression Scale (CES-D), Edinburgh Postnatal Depression Scale (EPDS), General Health Questionnaire (GHQ), Inventory of Depressive Symptomatology (IDS), Postpartum Depression Screening Scale (PDSS), and Zung Self-Rating Depression Scale (Zung SDS). (p. 143)

The BDI-II had an excellent range of internal consistency reliability (.91) and specificity (97-100%), but focuses on the somatic symptoms a woman may be experiencing, which can make it a less stable tool. The EPDS is the most widely used screening tool, as it is short and quick to administer, measures emotional, cognitive symptoms and purposefully excludes somatic symptoms. The EPDS has moderate to good type of reliability (no value given) and test-retest abilities (r=.53-.74), however it confounds depression symptoms with the anxiety symptoms that are included in the tool. The BPDS looks at mood and behaviors during and after pregnancy and includes measurement with previous

pregnancies, however, it a very hard tool to interpret and training is needed to use it properly. The CES-D looks at 20 items that measure depressive symptomatology, has good internal consistency (.82), but will likely miss 40% of depressed women in the postpartum period (Boyd et al., 2005). The GHQ has good reliability (no value given) and validity (52-53%) in general population, however, the tool is not specific to PPD and no reliability information is available for this population. The IDS has excellent sensitivity (95%), good specificity (88%), and a moderate positive predictive value (r=65%), but reliability and validity has not been studied with postpartum women. This tool has needs more research to screen regularly in the postpartum period. The PDSS has good to excellent internal consistency (.99), specificity (72-98%) and sensitivity (91-94%), is better able to detect women with major depression disorder instead of minor, but needs more diverse population research. The Zung SDS has good specificity (77-88%), but low sensitivity (45-89%) and positive predictive value (36-37%), which could miss women in the screening period. Five of the eight tools looked at depression in general, while three were specifically for postpartum depression (BPDS, EPDS, and PDSS). The three tools that had the highest internal consistency and clinical significance (no p value reported) were the Beck Depression Inventory (BDI-II) (α =.91), Edinburgh Postnatal Depression Scale (EPDS) (α=.87), and Postpartum Depression Screening Scale (PDSS) (α = .96) (Boyd et al., 2005). The overall Boyd et al. (2008) review was that eight tools were selected and reviewed, which is a large number of tools to be looked at in one study. The weaknesses were that additional research is needed to determine the best measure for large-scale screening (Boyd et al., 2005). "Overall, the

EPDS is the most researched measure with moderate psychometric properties, but the PDSS and BDI-II appear promising" (Boyd et al., 2005, p. 150).

Screening tools provide identification of women needing further evaluation; they do not provide a diagnosis. Routine clinical evaluations include generic questions and do not usually include questions regarding mood, appetite, sleep, or other symptoms experienced by women with PPD. "Many medical professionals rely on their clinical impressions alone to determine whether a woman appears depressed, but several studies have shown that up to 50% of mothers with major depression are missed…" (Perfetti, Clark, & Fillmore, 2004, p. 58). Together with clinical interview, a screening tool, and an assessment provides the most accurate diagnosis for PPD. Clinical interview is still the best method to assess for PPD, as it includes observation of the patient and asking questions based upon observations found (Boyd et al., 2005). The clinical assessment is the gold standard to assessing PPD, but on its own, has limitations (Boyd et al., 2005). The biggest limitation is time allotted for a provider to engage a patient, observe, ask questions, and still perform assessments needed for the expected appointment. In assessment, a provider is observing for reports of the clinical manifestations of PPD. PPD includes alterations in somatic functioning like "…sleep, energy level, appetite, weight, gastrointestinal functioning, and libido" and additional potential symptoms such as "anxiety, irritability and anger, feelings of guilt, sense of being overwhelmed or unable to care for baby, feelings of inadequacy, failure, or not bonding with baby" (Lusskin & Misri, 2012, p. 5). In a study by Evins, Theofrastous, and Galvin (2000) of 391 postpartum women in a one year time period 96 were designated to the control group of routine clinical evaluation and 79 to the intervention screening group using the Edinburgh

Postnatal Depression Scale. Statistical significance found "the incidence of postpartum depression detection with the Edinburgh Postnatal depression scale is significantly higher than the incidence of spontaneous detection during routine clinical evaluation (35.4% and 6.3%, respectively; p=.001) (Evins et al., 2000, p. 1080). The EPDS provides a screening of symptoms and mood to indicate the need for further assessment. The importance of the provider recognizing these symptoms in clinical assessment, allows the screening tool to be more effective to the diagnosis of PPD.

One of the most popular and studied screening tools for PPD is the Edinburgh Postnatal Depression Scale (EPDS). The EPDS is reliable, standardized, and cost effective to administer. In a study with 462 Chinese mothers with 2-month-old babies, 231 were placed in the intervention group screened with the EPDS, and 231 in the control group that received routine clinical assessment (Leung et al., 2010). The results showed that women in the "intervention group had better maternal mental health outcomes as assessed by EPDS at 6 months (risk ratio: 0.59; 95% confidence interval: 0.39-0.89)…" (Leung et al., 2010, p. 292). The number needed to screen was 25. The strengths to this study were that it was a randomized controlled trial, and showed the effectiveness of screening for PPD. There were some weaknesses noted, no specific tests were done to ensure success of blinding, and there was no psychiatric diagnosis to determine their mental health status. Overall this study shows that by using the EPDS screening tool, we can more positively identify women with PPD, than just routine clinical evaluation.

Treatment Options

There are many treatment options available for PPD. Sockol, Epperson, and Barber (2011) performed a meta-analysis systematic review (27 studies) with the aim of

assessing the efficacy of pharmacologic and psychological interventions as treatment options for PPD. Interpersonal psychotherapy (IPT) was found to be superior to cognitive-behavior therapy (CBT) with a p value of 0.05 (Sockol et al., 2011). The strengths were the meta-analysis demonstrated that a range of interventions are effective in the reduction of PPD and confirmed previous findings. Weaknesses found were the number of previous studies included in the meta-analysis had a relatively small amount of subjects studied and had small coverage of pharmacology (antidepressants), as the sole treatment option (Sockol et al., 2011).

A Cochrane review of psychosocial (e.g. non-directive counselling) and psychological (e.g. interpersonal psychotherapy and cognitive behavior therapy) interventions examined which interventions were helpful in decreasing depressive symptoms by 30% compared to routine care (Hodnett, 2009). Standard or usual care referred to as "…appropriate medical care received during the course of the study, including pharmacotherapy (e.g. antidepressants) as deemed necessary by the clinician (Hodnett's, 2009, p. 4). Hodnett's (2009) review of nine trials had two objectives and the primary objective was "to assess the effects of all psychosocial and psychological interventions compared with usual postpartum care in the reduction of depressive symptomatology" (p. 1). The strength of the review was wide in variety, but the methodological quality of the studies weren't strong (Hodnett, 2009).

In a Cochrane review of antidepressant treatment for post-natal depression, only one trial was found, leaving many gaps in meeting the objectives of the review (Hoffbrand, Howard, & Crawley, 2009). One trial reported that "fluoxetine was, after an initial session of counseling, as effective as a full course of cognitive-behavioural

counselling in the treatment of postnatal depression" (Hoffbrand et al., 2009, p. 1). A trial by Appleby in 1997, examined three outcome measurements including: "the Revised Clinical Interview Schedule (CIS-R), which was the main outcome measure, and the Edinburgh Postnatal Depression Scale and the Hamilton Depression Scale (HAM-D) (Hoffbrand et al., 2009, p. 6). The trial found that the differences in the mean CIS-R scores in 61 women as follows: "the difference between fluoxetine and placebo at 12 weeks was 40.7% (95% confidence interval 10.9%-60.6%) and the difference between six sessions and one session of counselling at 12 weeks was 38.7% (-9.2%-111.7%)" (Hoffbrand et al., 2009, p. 6). Strengths found were that both fluoxetine and cognitive-behavioral counseling were effective in depressed women at 6-8 weeks postpartum, although combining fluoxetine with 6 counseling sessions did not produce any additional improvement. The weaknesses were too few patients which produced small study groups, thus the underpowered study found no statistical significance between treating with fluoxetine or placebo. Women who had a history of substance use, chronic or resistant depression, and breastfeeding women were excluded from the study. More studies are needed to determine the effectiveness of antidepressants in postpartum mothers, especially those that are breastfeeding or with history of substance use and depression.

Discussion

PPD has been described as a dangerous thief that steals precious time from women and their infants (Beck, 1999). PPD is a major health issue for many women and their families and can affect up to 13-19.2% of women. Due to these statistics, providers need to be aware of women's risk factors, assessment, and treatment options. The

thirteen risk factors provided above need to be used to identify women that will be a high risk for PPD and should be used, if possible prior to delivery. By assessing women's risk factors before delivery, it sets the women up for success and possible early diagnosis for PPD. The review of the literature shows that "…without treatment, 30-70% of these women may experience depression for a year or longer" (Perfetti et al., 2004, p. 56).

As provided in the literature above, providers should be familiar with the screening tools and assessment used to identify postpartum depressive symptoms. Providers should be using one of the three identified tools (BDI-II, EPDS, or PDSS) on a regular basis in order to ensure accuracy and ease of use. Any of the three identified tools may be used based on provider preference. The literature review provides the most widely used tool is the EPDS. The standard for assessment of postpartum depression is a clinical interview, knowing how to ask the right questions about signs and symptoms of PPD, and listening to patients. The right questions are individualized based on presenting symptoms and are strengthened based upon provider's knowledge of PPD and past history of knowing the patient. Screening tools can be provided to each patient to fill out in the waiting room, can be scored by nurses or medical assistants, and then may be reviewed by the provider to ensure efficiency and swiftness (Perfetti et al., 2004). This should be a part of routine assessment that must be practiced to be perfected to guarantee not missing patients.

Finally, there are many treatment options available for PPD varying from psychological to pharmacological treatment. Some research support the benefits of psychological treatment using interpersonal psychotherapy (IPT) over cognitive-behavior therapy (CBT). Other studies found that any psychological and/or pharmacological

treatment or combination of both is effective in alleviating depressive symptoms compared with usual routine postpartum treatment. The provider and patient should expect relief in up to 30% of experienced symptoms, if patients follow through with treatment (Hodnett, 2009). Treatment and therapy is individualized and based upon many factors including degree of symptoms, previous history, and/or risk factors.

The evidenced presented support the theoretical framework of the symptom management model. The goal is identification of risk factors, proper screening and assessment of symptoms, and treatment aimed at decreasing or alleviating depressive symptoms experienced by women with PPD. Once again, by taking a holistic approach to PPD, a provider can help change not only a women's experience of the postpartum period, but also have an effect on her family and infant long term.

Recommendations for Future Research

Recommendations for future research include the testing of a standardized clinical tool and treatment plan for clinicians to use universally in order to be on the "same page" and "speak the same language" about PPD. This would benefit clinical providers to assist in identifying, assessing, and providing treatment options to women with PPD earlier in order to prevent women being taken over by this debilitating mood disorder. A standardized tool like this would "…assist clinicians to conduct universal PPD screening, support PPD screening across practice settings, and implement treatment and support to improve the mental health and emotional well-being of mothers…" (Horowitz, Murphy, Gregory, & Wojcik, 2010, p. 60). Additionally a great deal more research is needed for the effectiveness of antidepressants for the treatment option of PPD. Many mothers are unable to make time for counseling and would prefer medication as a more convenient

alternative. Regardless, there is a great deal of information available to providers at the present time, but much more can be learned about PPD in order provide the best and safest care to our new mothers.

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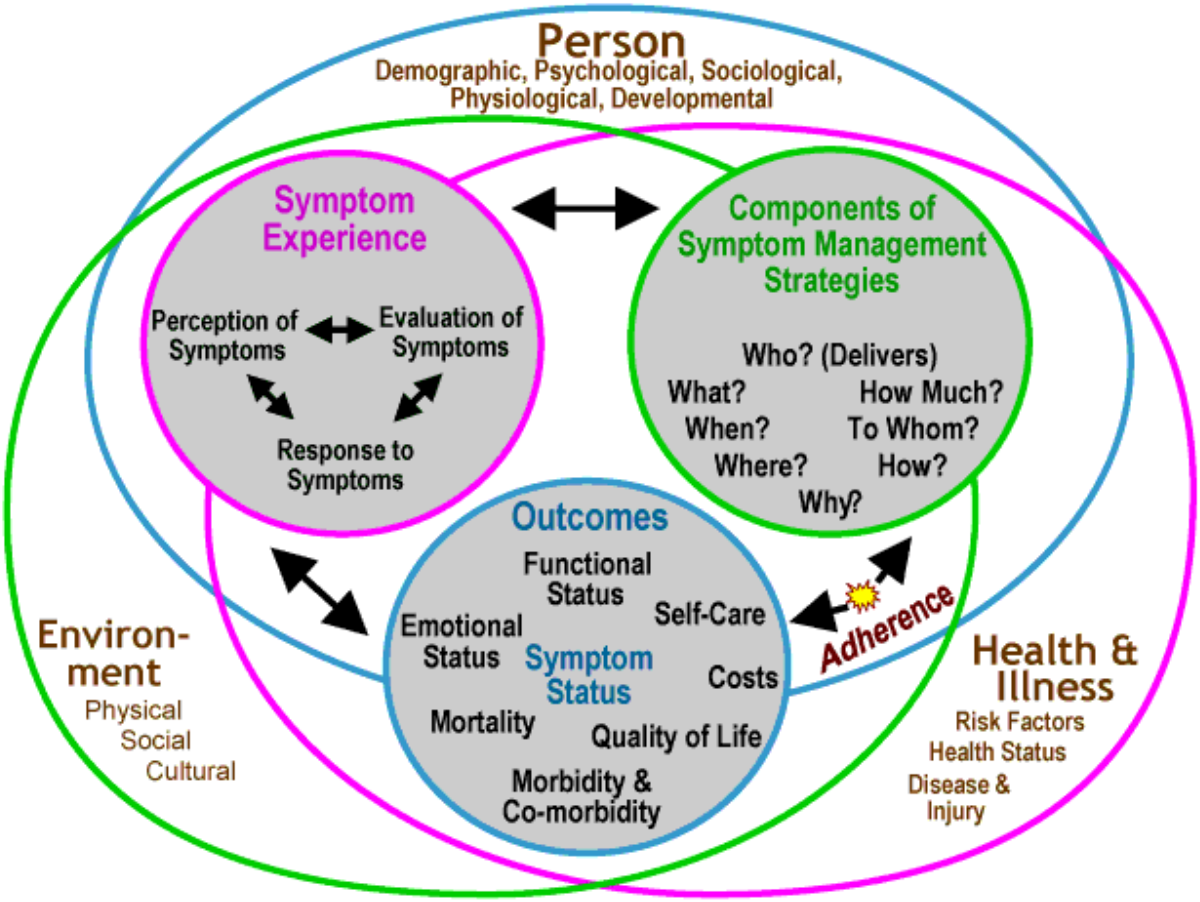

Figure 1: Symptom Management Model (Dodd et al., 2001)

APPENDIX A:

Beck Depression Inventory (BDI, BDI-II)
Bromley Postnatal Depression Scale (BPDS)
Center for Epidemiological Studies Depression Scale (CES-D)
Edinburgh Postnatal Depression Scale (EPDS)
General Health Questionnaire (GHQ)
Inventory of Depressive Symptomatology (IDS)
Postpartum Depression Screening Scale (PDSS)
Zung Self-Rating Depression Scale (Zung SDS)

Boyd, Le, and Somberg (2005).