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COGNITIVE BEHAVIORAL THERAPY A TREATMENT FOR POSTPARTUM  
DEPRESSION

A MASTER'S PROJECT  
SUBMITTED TO THE GRADUATE FACULTY  
OF THE GRADUATE SCHOOL  
BETHEL UNIVERSITY

BY

LINDSAY A. NELSON

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF  
MASTER OF SCIENCE IN NURSE-MIDWIFERY

MAY 2018

BETHEL UNIVERSITY


Cognitive Behavioral Therapy a Treatment for Postpartum Depression

Lindsay A. Nelson

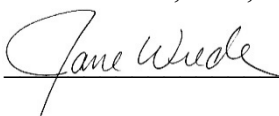
May 2018

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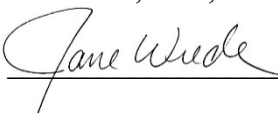
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Mom and Dad, there are no words to express how thankful I am for everything you have done for me. You supported me in every aspect of life and graduate school. Whether it was providing me with encouragement or childcare, I got here because of you two. You taught me the importance of education, hard work, and never giving up. You showed me what it meant to be a student, a daughter, a mother, and a friend. I love you both so much.

I would like to thank all my professors and faculty members of the Bethel University Nurse-Midwife program. Each and every one of you have taught me to be a critical thinker, a compassionate midwife, a humble student, a grateful daughter, a hard working mother, and a caring friend. I will take pieces of each of you into my future midwifery practice.

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difficult times these last three years. I believe we have formed friendships that will last a lifetime.

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Lindsay Nelson

### Abstract

#### Background/Purpose:

The purpose of this paper is to critically analyze the literature in order to determine whether or not cognitive behavioral therapy is an effective intervention in the prevention and/or treatment of postpartum depression.

#### Theoretical Framework:

The theoretical framework used for this paper was Cheryl Tantano Beck's theory, *Teetering on the Edge: A Substantive Theory of Postpartum Depression*. Beck's theory was a phenomenological study of the lived experiences of women suffering from postpartum depression. Beck identified a four stage process of postpartum depression encompassing a loss of control. The four stages included: (1) Encountering Terror; (2) Dying of Self, (3) Struggling to Survive, and (4) Regaining Control.

#### Methods:

Twenty research articles ranging from the years 2001-2018 were critically reviewed with the purpose of determining the efficacy of cognitive behavioral therapy as an intervention for the prevention and/or treatment of postpartum depression.

#### Results/Findings:

Seven articles examined cognitive behavioral therapy as a preventative intervention for postpartum depression. Six of the seven articles found cognitive behavioral therapy to be effective in the prevention of postpartum depression. 13 studies examined the efficacy of cognitive behavioral therapy as an intervention in the treatment of postpartum depression. 11 of these studies found cognitive behavioral therapy to be an effective intervention in the treatment of postpartum depression.

**Implications for Practice:**

Nurse-midwives are afforded a unique opportunity to care for women during the ante, intra, and postpartum periods. Given the frequency and volume of clinic visits, midwives are often the first provider to assess for, diagnose, and offer treatment options for postpartum depression. Pregnant and/or breastfeeding mothers often prefer non-pharmacologic treatment options for postpartum depression. Given the effectiveness of cognitive behavioral therapy, midwives can offer this as a non-pharmacologic treatment option for women.

**Keywords:**

Key words used to search databases included: postpartum depression, perinatal depression, intervention, treatment, cognitive behavioral therapy, and randomized controlled trial.

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## Chapter I: Introduction

Postpartum depression is a disease that occurs in 20% of women within the first year of childbirth (Ugarte et al., 2017). The Diagnostic and Statistical Manual for Mental Disorders (DSM-V) defines postpartum depression (PPD) as a major depressive disorder with a “peripartum onset”, occurring within four weeks of childbirth (Rai, Pathak, & Sharma, 2015). PPD is a serious public health problem affecting women during the first year after delivery with negative consequences for both mother and infant (Goodman & Santangelo, 2011). A subtype of depression, PPD symptoms include but are not limited to anxiety, depressed mood, inability to cope, intrusive compulsive thoughts, loss of control, despair, irrational fears, and feelings of guilt and inadequacy in relation to the ability to care for the newborn (Miniati et al., 2014). In many cases PPD precipitates a chronic or recurring depressive course throughout a woman’s life. Negative ramifications for infants associated with PPD include impaired cognitive and emotional development, attachment insecurity, social and behavioral difficulties later in life (Goodman & Santangelo, 2011). Since PPD can adversely affect both mother and infant it is imperative that providers are versed in treatment options to alleviate/mange PPD symptoms. Cognitive behavioral therapy (CBT) has long been the first-line psychological treatment for anxiety and depressive disorders (Green et al., 2015). CBT is a structured, time-limited, and skill-focused psychotherapy, that when specifically adapted for perinatal anxiety and/or depression, has shown to be a viable option for both prevention and treatment of PPD (Green et al., 2015). This paper will provide a critical review of the literature to answer the following question: “Is cognitive behavioral therapy (CBT) an effective intervention for the treatment and/or prevention of postpartum depression?”

**State of Purpose**

The purpose of this paper is to examine scholarly articles in order to identify the effectiveness of cognitive behavioral therapy (CBT) as an intervention for the treatment and/or prevention of postpartum depression (PPD). Cheryl Beck's nursing theory, *Teetering on the Edge: A Substantive Theory of Postpartum Depression*, is the theoretical framework used to identify the symptomology of PPD, as this theory is based on the lived experiences of women who suffered from PPD (Beck, 1993).

**Need for a Critical Review**

Perinatal depression, which includes major and minor depressive episodes that occur during both the perinatal period and the first 12 months after childbirth, is the most common obstetrical medical complication affecting one in seven women (American College of Obstetricians and Gynecologists [ACOG], 2015). Left untreated, "Perinatal depression and other mood disorders, such as bipolar disorder and anxiety disorders, can have devastating effects on women, infants and families; maternal suicide exceeds hemorrhage and hypertensive disorders as a cause of maternal mortality" (ACOG, 2015, p. 2). The American College of Obstetricians and Gynecologists (ACOG, 2015) recommends that clinicians screen patients at least once during the prenatal period for depression and anxiety using a standardized, validated tool such as the Edinburgh Postnatal Depression Scale, Postpartum Depression Screening Scale, Patient Health Questionnaire 9, Beck Depression Inventory, Beck Depression Inventory II, Center for Epidemiologic Studies Depression Scale, or Zung Self-Rating Depression Scale (2015). Although screening is important for identifying perinatal depression, screening alone is not sufficient to improve clinical outcomes. Screening must be coupled with follow-up and appropriate treatment interventions to effectively prevent and/or reduce perinatal depressive

symptoms. Therefore it is imperative that clinical staff in obstetrics and gynecology be prepared to identify perinatal depression, initiate medical therapy, and/or refer women to appropriate behavioral health resources when indicated (ACOG, 2015).

The American College of Nurse-Midwives (ACNM) notes that depression is a major public health problem that affects millions of women and their families. Depression is the leading cause of disability for women, affecting twice as many women (12.6%) as men (6.3%) (American College of Nurse-Midwives [ACNM], 2013). Those affected by depression have an increased risk for suicide, with women reporting attempted suicide two to three more often than men. Furthermore, one in ten mothers (10.2%) suffer from a major depressive disorder every year. With young mothers and mothers of young children at the highest risk. Women aged 25-44 are most commonly affected by depression, with approximately 10%-15% of new mothers experiencing postpartum depression within the first year of childbirth (ACNM, 2013).

In 2005 the World Health Organization (WHO) also declared depression a major health concern and predicted it would be the second highest cause of disability by 2020 (Leung et al., 2016). PPD, a subtype of depression, is a global health concern that affects childbearing families. Many psychosocial and pharmacological therapies have been used to prevent and/or treat PPD. However most pregnant and postpartum women prefer psychotherapy to pharmacotherapy as it reduces fetal and infant exposure to medication. While the National Institute for Health and Clinical Excellence recommends individual CBT and interpersonal therapy as interventions for the treatment of PPD, the ACNM and ACOG have yet to make a formal recommendation on CBT as a viable treatment method for PPD (Leung et al., 2016).

To date, the treatment of perinatal depression and/or anxiety has primarily been focused on pharmacotherapy. However, the decision to take medications while pregnant or breastfeeding

is complex for many women. Although many antidepressants have been found to be safe for pregnant and breastfeeding women, not all potential risks for fetuses and babies can be definitively ruled out (Green, et al., 2015). Therefore, if a woman cannot or chooses not to take medication, the need for an effective non-pharmacological treatment option becomes critical. “Cognitive behavioral therapy (CBT) is a proven intervention used in the treatment of patients with both depressive and anxiety disorders which aims to reduce symptoms by targeting and modifying negative patterns of thinking and behavior” (Austin et al., 2007, p. 2). Despite a large research base supporting the effectiveness of CBT for anxiety and depressive disorders, there is not a professional consensus that has officially recommended CBT as a treatment for postpartum depression.

### **Significance to Nurse-Midwifery**

Due to the prevalence of perinatal depression and the fact that women are often reluctant to seek help because of stigma and other impediments, it is critical that midwives are familiar with depressive symptomology. The ACNM recommends the following: (1) all certified nurse-midwives (CNMs) and certified midwives (CMs) understand the dynamics of both depression and perinatal depression, its impact on women and families, and available treatment resources, (2) as advocates and primary health care providers, CNMs/CMs should integrate universal screening, prevention, treatment, and/or referral for depression into their care of women, (3) public health policies that encourage universal screening, treatment and/or referral for depression should be a routine component of midwifery care, (4) public health policies should be encouraged that will increase the number of postpartum visits, facilitate access to and reimbursement for mental health treatment, and (5) further research is needed to identify and resolve gender, socioeconomic, and racial disparities in the diagnosis and treatment of depression

for all women (ACNM, 2013). Since nurse-midwives are trained in both obstetrical and primary health care, they are equipped to screen for and treat postpartum depression (PPD). Knowing that cognitive behavioral therapy (CBT) is an effective intervention for the treatment of PPD, midwives can help identify those in need of intervention and offer CBT as a viable treatment option.

### **Theoretical Framework**

In 1993, Cheryl Tatano Beck published her middle range theory on postpartum depression entitled, *Teetering on The Edge: A phenomenological study of the lived experiences of women suffering from postpartum depression* (Beck, 1993). Through this study Beck was able to identify a four stage process of postpartum depression encompassing a loss of control. The four stages included: (1) Encountering Terror; characterized by horrifying anxiety attacks, relentless obsessive thinking, and enveloping foginess, (2) Dying of Self; characterized by; alarming unrealness, isolating oneself, and contemplating and attempting self-destruction, (3) Struggling to Survive; characterized by battling the system, praying for relief, and seeking solace at support groups, and (4) Regaining Control; characterized by unpredictable transitioning, mourning lost time, and guarded recovery (Beck, 1993).

Beck (1993) explored the concept of postpartum depression (PPD) beyond the analysis of symptoms and definitions of major depressive disorders because at the time, the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), did not include postpartum depression as a diagnosis (Marsh, 2013). Even today, the DSM-V refers to postpartum depression as a major depressive disorder with a peripartum onset (Rai et al., 2015). “The use of Beck’s theory on PPD is a relevant tool for any provider, whether midwife, childbirth educator, or nurse, to enhance the care provided to pregnant and postpartum clientele” (Marsh, 2013, p. 50). Beck’s

theory on postpartum depression can be used from the beginning of pregnancy and throughout the postpartum period to help identify those at risk for or experiencing postpartum depression. Beck provides a holistic approach to understanding postpartum depression by not only allowing providers to see why postpartum depression occurs, but to also enter the mindset of women experiencing postpartum depression (Marsh, 2013). By identifying those at risk for or those experiencing postpartum depression, providers can initiate early intervention thereby reducing negative ramifications of postpartum depression on women, infants, and families. Knowing that pharmacology has been the primary treatment option for PPD, and that many pregnant and/or breastfeeding women desire nonpharmacological interventions, allows nurse-midwives the opportunity to use cognitive behavioral therapy as an alternative yet viable treatment option (Green et al., 2015).

### **Summary**

“The sequelae of depression include a broad range of somatic, physical, emotional, and behavioral problems that directly and indirectly affect the health of pregnancy, postpartum and non-pregnant women and their families” (ACNM, 2013, p. 2). As providers of women’s health care, midwives are able to provide universal screening, treatment and/or referral for women affected by depression. Midwives are able to provide this care in a community based, multi-disciplinary team approach that better identifies and treats those suffering from depression. With heightened awareness and validated screening tools to diagnose perinatal depression, the question remains, “Is CBT an effective intervention for the treatment and/or prevention of postpartum depression?” Chapter two will describe methods used to review scholarly journals addressing the practice question is CBT an effective intervention are for the treatment of postpartum depression. Chapter three will provide a critical synthesis of the literature, including

the effectiveness of CBT in the reduction/prevention of postpartum depression. Finally, chapter four will provide discussion of the implications of CBT and its impact on future studies.



## **Chapter Two: Methods**

This chapter addresses the methods used to identify and appraise scholarly literature in the review process. Literature included randomized controlled trials, open trials, pilot studies, and quantitative observational studies related to cognitive behavioral therapy (CBT) as an intervention for the treatment and/or prevention of postpartum depression (PPD). Using multiple search terms and research databases, 56 research articles were yielded and assessed for their significance to this review. A final 20 articles were selected when inclusion and exclusion criteria were met.

### **Search Strategies**

The purpose of this literature review was to answer the practice question: is cognitive behavioral therapy (CBT) an effective intervention for the treatment and/or prevention of postpartum depression? Articles ranging from 2008 to 2018 were included in this literature review. Two articles written before 2008 were included due to their clinical significance. The following databases were used: the Cumulative Index to Nursing and Allied Health Literature (CINAHL), CINAHL Plus, Elton B Stephens Company (EBSCO), Google Scholar, The National Center for Biotechnology Information (NCBI), and PubMed MEDLINE. Search terms used in the aforementioned databases include: postpartum depression, perinatal depression, intervention, treatment, cognitive behavioral therapy, and randomized control trial.

### **Inclusion and Exclusion Criteria**

Articles selected for this literature review answered the research question: “Is CBT an effective intervention for the treatment and/or prevention of postpartum depression?” Research studies that used CBT in either the perinatal or immediate postpartum period were included in this literature review. Age of participants, study location, and CBT delivery method were not

factors of exclusion criteria. Cognitive behavior interventions were delivered in either a group or individual setting. Modes of delivery included face-to-face, telephone, and internet encounters. Study types included were randomized controlled trials and quantitative observational studies. Articles with interventions of interpersonal psychotherapy, antidepressant/antianxiety medication, and complimentary alternative methods were excluded from this literature review. Twenty articles that met inclusion and exclusion criteria were then categorized by evidence level and by quality as defined by the *John Hopkins Level and Quality* review (Dearholt & Dang, 2012). This matrix included studies of evidence levels I-III and of high or good quality. Studies levels IV and V and/or of poor quality were excluded from this critical review of the literature.

### **Studies Selected**

The initial database search yielded 56 studies. After applying inclusion criteria based on age of study and methodology, the final search yielded 20 studies related to the effects of cognitive behavioral therapy (CBT) as prevention or treatment for postpartum depression (PPD). Of the 20 studies used in this literature review, 15 studies were randomized controlled trials and the other five were quantitative observational studies. The 15 randomized controlled trials were all evidence level I of the *Johns Hopkins Nursing Evidence-Based Practice: Model and Guidelines*, while four of the quantitative observational studies were evidence level II and one was evidence level III (2012). Selected studies were completed in the United States, Central America, Europe, Australia, and Asia. Eighteen of the studies spanned the years 2007 to 2017, one study was from 2001, and another from 2005.

### **Evaluation Criteria**

Each study selected was appraised using the *Johns Hopkins Nursing Evidence-Based Practice: Model and Guidelines* (2012). Selected studies were first evaluated based on evidence

level; all 20 studies were found to be level I, II, or III. Level I studies are experimental studies including randomized controlled trials (RCTs) and systematic reviews of RCTs with or without meta-analysis. Level II studies are quasi-experimental studies including systematic review of a combination of RCTs and quasi-experimental, or quasi-experimental only, with or without meta-analysis. Level III studies are non-experimental including systematic review of combination RCTs, quasi-experimental and non-experimental studies, or non-experimental studies only, with or without meta-analysis (Dearholt & Dang, 2012).

After the designation of level of evidence, the articles were reviewed for quality. Evidence quality was categorized by high quality, good quality, and low quality or major flaws (i.e. little evidence with inconsistent results, insufficient sample size, and/or conclusions could not be drawn) (Dearholt & Dang, 2012). Only articles with high or good quality were included in this literature review. High quality articles were consistent with generalizable results, sufficient sample size, adequate control, and definitive conclusions with recommendations based on comprehensive literature review that included thorough reference to scientific evidence. Good quality articles have reasonably consistent results, sufficient sample size, some control, fairly definitive conclusions with recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence (Dearholt & Dang, 2012).

### **Summary**

CINAHL PLUS, EBSCO megaFILE, ERIC, PsycINFO, ScienceDirect, and Google Scholar were the databases used to search for articles that answered the question: “Is cognitive behavioral therapy an effective intervention for the treatment and/or prevention of postpartum depression?” Using the Johns Hopkins Research and Evidence Appraisal Tool, inclusion and exclusion criteria, 20 articles were selected based on level of evidence and quality of research.

### **Chapter Three: Literature Review and Analysis**

#### **Synthesis of Matrix**

The matrix consisted of 15 randomized controlled trials, one open trial, and four quantitative observational studies. The Johns Hopkins Research Evidence Appraisal Tool was used to evaluate the level of evidence and quality of each research article (Dearholt & Dang, 2012). Each matrix included the study level and quality, purpose statement, methodology, description of participants, instruments, results, conclusion, and recommendations. The matrix is organized alphabetically and pertinent findings are evaluated and summarized in chapter three.

#### **Synthesis of Major Findings**

The 20 research studies appraised in this literature review supported the effectiveness of cognitive behavioral therapy (CBT) as a viable intervention for both prevention and treatment of postpartum depression (PPD). Within the intervention of CBT, seven studies explored the effectiveness of CBT as a preventative intervention for PPD, while 13 studies evaluated CBT as a treatment for PPD. The modes in which CBT was delivered to patients included individual and group therapy via person-to-person or telephone/internet interactions. Of the 20 appraised research studies, 17 had a statistically significant reduction in postpartum depressive symptoms. While the remaining three research studies had an overall reduction of postpartum depressive symptoms, they were not reduced to a statistically significant level.

**Cognitive behavioral therapy used for prevention.** For this literature review, six level I randomized controlled trials (RCTs) and one level II quantitative observational study evaluated the effectiveness of cognitive behavioral therapy (CBT) as a preventative intervention for postpartum depression (PPD). Women identified at risk for PPD included those with a history of major depressive disorders and/or prior PPD, and those with depressed mood during pregnancy,

lack of partner support, low self-esteem, and/or low socioeconomic status. The CBT intervention focused on psychoeducation, cognitive restructuring, problem solving, relaxation, behavioral experiments, and assertiveness. The intervention varied in individual versus group sessions, sample size (27-240 participants), length of session (60-120 minutes), and number of sessions (4-9). Of the seven appraised studies, four RCTs and one quantitative observational study noted significant reductions in depression levels amongst the intervention group, from baseline to posttreatment measurements, compared to the control groups. One RCT found an overall reduction of postpartum depressive symptoms but not to a statistically significant level (Austin et al., 2007). While one RCT noted a significant reduction of postpartum depressive symptoms during pregnancy but not in the postpartum period. (Le et al., 2011).

The articles examined in this literature review found CBT to be an effective intervention for the prevention of emotional distress and depression during pregnancy and the immediate postpartum period. Anton and David (2015), found that a CBT intervention comprised of classic restructuring techniques focused on irrational beliefs/fears, participant's physical health, the marital relationship, and the participant's body image not only decreased postpartum depression symptoms but also negative emotionality and anxiety. Results of this study included: BDI depression scores decreased from 8.48(5.76) to 4.39(3.47),  $p = .002$ , POMS negative emotionality scores decreased from 73.35(16.14) to 63.04(13.39),  $p = 0.19$ , and STAI anxiety scores decreased from 42.22(8.62) to 35.58(7.31),  $p = .012$  (Anton & David, 2015). Compared to the control group of community care, the results of this study indicated that the CBT intervention was more efficient in the prevention of depressive symptoms. Not only was it effective in the reduction of BDI depression scores, it also significantly reduced negative emotionality and anxiety. A significant reduction in BDI depression scores was maintained

through nine weeks postpartum, while significant reductions in negative emotionality and anxiety were maintained through three months postpartum (Anton & David, 2015).

The largest study conducted by Mao, Li, Chiu, Chan, & Chen (2011) used an emotional self-management training program (ESMTP), a form of CBT, as an intervention for the prevention of postpartum depression (PPD). Like Anton and David's study (2015), ESMTP a CBT intervention, was found to significantly reduce postpartum depression symptoms (Mao et al., 2011). For this study, 240 participants were randomly assigned to the ESMTP intervention group or the control group. The intervention group consisted of four weekly group sessions and one individual counseling session. The ESMTP intervention focused on understanding self-management and the delivery culture, effective problem solving and positive communication, relaxation exercise and cognitive restructuring, and improving self-confidence. The control group received standard antenatal education conducted by obstetric nurses, which consisted of four 90 minute sessions. Results of this study included: PHQ-9 scores decreased from  $8.20 \pm 2.84$  to  $5.45 \pm 2.42$ ,  $p < .01$  and EPDS scores intervention group  $6.45 \pm 1.09$ , control group  $9.23 \pm 2.91$  ( $t = 1.95$   $p < .05$ ) (Mao et al., 2011). These results showed a significant improvement in depressive symptoms amongst women in the intervention group compared to the control group. The large sample size of this study was able to further validate findings of similar but smaller studies, in which CBT was found to be an effective intervention in the prevention of postpartum depression.

Unlike the aforementioned studies, Austin et al., (2007) did not find a significant reduction in postpartum depression symptoms in their study. Austin et al., (2007) evaluated a brief antenatal cognitive behavioral group therapy intervention, for the prevention of PPD. In this study 132 participants were randomly assigned to the CBT intervention group or the control

group. The intervention group consisted of six weekly sessions of CBT, which focused on the prevention and management of stress, anxiety and low mood in the context of pregnancy, and caring for a new baby. The control group received a booklet containing information about risk factors for postpartum depression and a list of referrals. Results of this study included: MINI anxiety scores reduced 28% in late pregnancy to 16% at four months postpartum in the CBT group, with similar reductions in the control group. Depression scores in the most symptomatic women (EPDS > 12; N = 19) decreased by over 50% over the total time course, however there were no significant differences in symptom improvement between the CBT and the control group (Austin et al., 2007). While the results of this study indicated an overall reduction in anxiety and depression symptoms, the authors summarized that the information booklet given to the control group was therapeutic in and of itself, leading to the CBT intervention not producing a statistically significant result (Austin et al., 2007).

**Cognitive behavioral therapy used for intervention.** In 13 studies, CBT was evaluated as an intervention for the treatment of PPD. The intervention varied in individual versus group sessions, sample size (10-192 participants), length of session (60-120 minutes), and number of sessions (6-15). Nine of these studies were level I RCTs, one study was a level II quantitative open trial, two were level II quantitative observational studies, and one was a level III quantitative observational study. Of these 13 studies: six RCTs, three quantitative observational studies, and one quantitative open trail noted significant decreases in depression levels from baseline to posttreatment in the CBT intervention groups compared to the control groups. While three RCTs indicated an improvement in depressive symptoms, the results were not statistically significant.

Wozney et al. (2017) used a distance-delivered CBT intervention to evaluate its effectiveness at decreasing mild to moderate depressive symptoms in postpartum mothers. The intervention used was The Strongest Families MOM: Managing Our Mood program developed by Drs. McGarth and Lingely-Pottie (Wozney et al., 2017). Sixty-two participants were randomly assigned to the CBT intervention group or control group. The intervention group consisted of the MOM 12-session CBT handbook supplemented with telephone based coaching support. The control group received two 'Ask Dr. Pat' columns specific to PPD ('Ask Dr. Pat' was an evidence-based weekly column, written by PJM, that appeared in a local newspaper), a brochure that described the symptomology, causes, and treatment options for PPD, and were encouraged to maintain regular contact with their primary care provider. Results of this study found: odds ratios that showed CBT participants were 1.5 times as likely to experience diagnostic remission at three months ( $p = 0.742$ ), 1.54 times as likely at six months ( $p = 0.696$ ), and 12.5 times as likely at 12 months ( $p = 0.009$ ) posttreatment compared to the control group (Wozney et al., 2017). These results indicated that the MOM distance-delivered CBT intervention was effective at not only producing diagnostic remission of PPD in the immediate postpartum period, but also through 12 months postpartum. This suggested that MOM is a both an effective and convenient distance intervention. Given the low cost of the MOM intervention, few barriers, and ease of use, the MOM program may serve as an effective treatment option for women that are under-resourced in their local community (Wozney et al., 2017).

Similar to Wozney et al., (2017), Pugh, Hadjistavropoulos, and Dirkse (2016), also used a distance-delivered CBT intervention for the treatment of PPD. The Pugh et al. (2016) intervention consisted of therapist-assisted, internet-delivered cognitive behavioral therapy (TA-ICBT). Fifty participants were randomly assigned to the TA-ICBT intervention group or the



treatment-as-usual TAU control group. The intervention group consisted of 11 online sessions focused on psychoeducation and behavioral exercises moderated by parent supporters and supervised by specialist health visitors. The control group received TAU by a general practitioner. Results of this study found that following CBT 20% of participants were classified as improved and 62% were recovered compared to the control group  $\chi^2(1) = 2.93, p = .08$ , Cramer's  $V = .026$ , follow-up EPDS scores were  $t(14) = 4.13, p < .01, d = 1.10$  (Pugh, Hadjistavropoulos, & Dirkse, 2016). PPD symptoms decreased more for those in the TA-ICBT treatment group compared to those in the TAU control group. These results were clinically significant and were maintained at the four-week follow-up (Pugh et al., 2016). TA-ICBT demonstrated to be an efficacious, well-utilized, and desirable intervention for women with PPD. TA-ICBT appeared more efficacious at reducing symptoms of PPD, parental stress, and improved psychological and environmental quality of life than TAU (Pugh et al., 2016). The results of Wozney et al. (2017) and the Pugh et al. (2016) studies, indicated that CBT was not only an effective intervention for the treatment of PPD, but that it also could be effectively administered through a distance-delivery method.

Unlike the aforementioned studies, Leung et al. (2016) did not find a significant reduction in postpartum depressive symptoms with their evaluation of a brief group cognitive behavioral therapy intervention. For this study, 164 participants were randomly assigned to the CBT intervention group or the control group. The CBT intervention reinforced coping skills to enhance psychological resources and responses and to decrease negative thoughts. The intervention group consisted of six weekly two hours CBT group sessions. The control group was given a booklet that contained detailed information and education material about PPD and a list of community resources. Study results found: EPDS scores in the CBT group had a

significant reduction at three months posttreatment ( $t = 3.86, p = 0.03$ ) and at six months posttreatment ( $t = 4.80, p < 0.01$ ), whereas the control group was only significant at six months posttreatment ( $t = 2.89, p = 0.02$ ), however the group differences were not significant (Leung et al., 2016). Analysis of these results showed that the CBT intervention significantly corrected dysfunctional cognition, but did not reduce depressive symptoms to a statistically significant level. Although this short intervention was only weakly effective, it might help enhance clinician efforts to assess for and prevent PPD (Leung et al., 2016).

### **Strengths and Weakness of the Research Studies**

Throughout the appraisal of fifteen randomized controlled trials, four quantitative observational studies and one quantitative open trial, many themes for research strengths and weakness were identified. Common strengths included: high adherence rates, participant satisfaction, cost effectiveness, and the appeal of CBT as a non-pharmacologic treatment option for pregnant and/or breastfeeding mothers. Common weakness included: small sample size, lack of a control group, and need to measure study outcomes further out from completion time. Two studies (Austin et al., 2007) and (Leung et al., 2016) concluded that the standard postpartum depression education booklets given to the control group may itself have been therapeutic, leading to their study outcomes not being statistically significant.

### **Summary**

Twenty research studies were critically reviewed with the purposing of evaluating whether or not cognitive behavioral therapy was an effective intervention for the treatment and/or prevention of postpartum depression. Fifteen of the twenty articles were level I randomized controlled trials classified as high or good quality according to the Johns Hopkins Research Appraisal Tool (Dearholt & Dang, 2012). Significant reductions in postpartum

symptomology was found in 15 of the 20 studies. Three studies found an overall reduction of postpartum depression symptoms but not to a statistically significant level. One study found a significant decrease in depressive symptoms during pregnancy but not in the postpartum period. Lastly, one study found a significant decrease in dysfunctional cognition but not in depressive symptoms.

## **Chapter IV: Discussion, Implications, and Conclusions**

The objective of this review was to discover whether cognitive behavioral therapy (CBT) is an effective intervention in the treatment and/or prevention of postpartum depression (PPD). Twenty research studies were chosen for critical analyses using the Johns Hopkins Research Evidence Appraisal Tool (Dearholt & Dang, 2012). Analysis and major findings of the aforementioned articles were summarized in chapter three. Chapter four will provide a synthesis of current gaps and trends in the literature, implications for nurse-midwifery, recommendations for future research, and an integration of Beck's theoretical framework of postpartum depression based on the findings of the appraised articles.

### **Literature Synthesis**

The foundation for this critical review was the research question: "Is cognitive behavioral therapy an effective intervention for the treatment and/or prevention of postpartum depression?" CBT used as a preventative intervention and a treatment modality was evaluated. CBT was delivered in various settings including: face-to-face individual and group therapy, internet group therapy, and telephone-assisted individual therapy. Regardless of the method of delivery, CBT was found to significantly decrease postpartum depressive symptomology in fifteen out of twenty research studies. The studies in which results did not reach a statistically significant level for the reduction of PPD did however, indicate an overall decrease in depressive symptoms.

### **Current Trends and Gaps in the Literature**

While researching CBT as an intervention for PPD, it became clear that the effectiveness of CBT as a treatment for PPD has been evaluated more than its use as a preventative

intervention. Only seven out of the twenty articles appraised in this critical review of the literature examined CBT as prevention versus treatment. Mao et al. (2011) utilized CBT for the prevention of PPD, beginning at 32 weeks gestation, in a randomized controlled trial (RCT) with 240 participants. Upon completion of four weeks of CBT intervention or treatment as usual, the mean PHQ-9 scores of the intervention group significantly decreased as compared to the control group. Mean EPDS scores at six weeks postpartum were also significantly lower in the intervention group compared to the control group (Mao et al., 2011). Of the seven studies that examined CBT as a preventative intervention, only one study did not result in a significant decrease in postpartum depressive symptomology. Given the effectiveness of CBT as a preventative intervention for PPD, as demonstrated by this literature review, further research of this intervention is warranted.

Thirteen studies examined the efficacy of CBT as a treatment method for PPD. Amongst women with PPD, CBT intervention was found to be more effective than routine care, resulting in a significant reduction of postpartum depressive symptoms (Milgrom, Negri, Gemmill, McNeil, & Martin, 2005). CBT was typically delivered via face-to-face individual or group therapy; however Pugh et al. (2016) evaluated the effectiveness of an internet delivered CBT intervention, while Wozney et al. (2017) evaluated a telephone-based CBT support intervention. Pugh et al. (2016) found that a therapist-assisted internet delivered cognitive behavioral therapy (TA-ICBT) significantly decreased postpartum depression symptoms in the intervention group compared to the control group. Wozney et al. (2017) had similar results finding a significant decreases in postpartum depression in the intervention group compared to the control group with a telephone assisted distance CBT intervention. Distance intervention via internet and/or telephone may be found more desirable to some new mothers as they can participate in therapy

without having to leave their house. This method of delivery may also be useful to treat women who live in locations where there is limited access to mental health services.

Amongst the twenty research studies appraised for this critical literature review, a general consensus of recommendations was made based on current gaps in the research. The most cited gap was the need for larger sample sizes to further determine the efficacy of CBT as treatment and/or prevention for PPD (Wozney et al., 2017). The need to extend treatment and follow-up evaluations further into the postpartum period was also a gap identified in this literature review (Pugh et al., 2016). The lack of articles evaluating CBT as a preventative intervention for PPD, combined with the effectiveness of this intervention in the limited studies appraised, indicates the need for further research in CBT as a preventative measure. Finally, the variety of CBT delivery modes combined with preliminary research indicating the effectiveness of internet and telephone assisted CBT, illustrates the need for further research in distance methods of delivery.

### **Implications for Nurse-Midwifery**

Nurse-midwives practice as providers for both primary women's health care and obstetrics, which provides us with many opportunities to screen for, diagnosis, and treat depression. Knowing that women are often reluctant to seek help for depressive symptoms because of stigma and other impediments, it is essential that nurse-midwives are familiar with screening methods and treatment options (ACNM, 2013). Cognitive behavioral therapy (CBT) is an effective treatment option that can be used independently or in conjunction with pharmacologic therapy. While many medications used to treat postpartum depression have been deemed safe for use during pregnancy and while breastfeeding, not all potential fetal or infant risks can be ruled out. Therefore a need exists for an effective non-pharmacologic treatment option. CBT has been demonstrated to be an effective non-pharmacologic option for the

treatment and prevention of PPD. CBT works to reduce depressive symptoms by targeting and modifying negative patterns of thinking and behavior (Austin et al., 2007).

Due to the number of clinic visits during the prenatal and postpartum period, the nurse-midwife is often seen more by women than a primary care provider. It is because of this frequency and volume of visits that nurse-midwives are in a unique position to assess for and track changes in a woman's psychological demeanor. Understanding the dynamics of postpartum depression (PPD), knowing the impact of PPD on women and their families, and being aware of available treatment options within the community is an integral part of nurse-midwifery care (ACNM, 2013).

“Depression occurs among all racial and ethnic groups. For vulnerable populations (low income, uninsured, and rural and minority populations), barriers to care are compounded by lack of insurance coverage, problems with transportation and childcare, and a lack of culturally competent and geographically accessible care” (ACNM, 2013, para. 8).

Throughout this literature review, CBT has been shown to be an effective intervention that can be adapted to treat at risk populations including low socioeconomic status, minorities, and those with limited access to mental health services. “The sequelae of depression include a broad range of somatic, physical, emotional, and behavioral problems that directly and indirectly affect the health of pregnant, postpartum and non-pregnant women and their families” (ACNM, 2013, para. 9). As providers of primary women's health care and obstetrics, nurse-midwives are in a position to be the first line of providers to screen for, diagnose, and treat PPD.

### **Recommendations for Future Research**

The recommendations for future research of cognitive behavioral therapy (CBT) as an intervention for postpartum depression (PPD) were easily identified while assessing for current

research gaps. Larger sample sizes and studies that extend further into the postpartum period are two of the most frequently cited recommendations (Pugh et al., 2016). Amongst observational quantitative studies that resulted with a significant decrease in PPD symptomology, further studies with a control group were recommended to further validate the initial results (Marrs, 2013).

The need for more studies specifically using CBT to treat PPD among low-socioeconomic status and minority women was also identified in this critical literature review. Mao et al. (2011), used CBT with elements of Chinese culture to treat PPD among Chinese women. This study resulted with a significant decrease in PPD symptoms among the CBT intervention group compared to the control group (Mao et al., 2011). Le et al. (2011), found that CBT reduced depressive symptoms during pregnancy for low-income, high-risk Latinas. O'Mahen et al. (2013) and Tandon et al. (2011), found that CBT significantly decreased PPD symptoms among low-income women. Given these preliminary results of the effectiveness of a CBT intervention in the treatment and/or prevention of PPD amongst low-income and minority groups, further research is recommended to further validate these results.

Problems with transportation, childcare, and lack of geographically accessible care has been identified as barriers to accessing mental health services (ACNM, 2013). Pugh et al. (2016) found that an internet based CBT intervention not only significantly decreased PPD symptoms, but also improved psychological and environmental quality of life. Wozney et al. (2017) found that women who participated in a telephone-assisted CBT intervention were 1.5 times as likely to experience diagnostic remission of PPD at three months as the control group. These technology-assisted, distance-based delivery methods of a CBT intervention relieve the issues of proximity,



transportation and childcare. Given the ease of use for this mode of delivery, further research in technology-assisted delivery methods is needed.

### **Integration of Theoretical Framework**

In 1992, Beck conducted a phenomenological study of the lived experiences of women with postpartum depression (PPD). Analysis of the data revealed loss of control as the basic social psychological problem of PPD. Those suffering from PPD, attempted to cope through the four-stage process of teetering on the edge. These four stages included: encountering terror, dying of self, struggling to survive, and regaining control (Beck, 1993). Struggling to survive is the third stage of teetering on the edge. In this stage women employed the following strategies: battling the system, praying for relief, and seeking solace in postpartum depression support groups. The strategy of battling the system occurs once the woman has made the choice to seek professional help. The path to help has often been met with frustration, humiliation, and anger due to the lack of knowledge, support, and treatment options provided to women by their care providers (Beck, 1993).

The strategy of seeking solace in a postpartum depression support groups can be met through CBT group therapy. Support groups help to counter the isolation and loneliness depressed mothers felt, while introducing them to other women that have recovered from PPD (Beck, 1993). The addition of a CBT intervention to a PPD support group can provide women with both social support and a tool to work through and overcome postpartum depressive symptoms. Beck (1993) illustrated the importance of provider awareness, screening, diagnosis, and referral to valid treatment options. CBT has been shown to be a validated intervention for both the treatment and prevention of PPD.

### **Conclusion**

The findings of this critical review of the literature endorse the validity of cognitive behavioral therapy (CBT) as both a treatment and preventative intervention for postpartum depression (PPD). For this review, twenty research studies were analyzed using the Johns Hopkins Research Evidence Appraisal Tool with statistically significant results found for the efficacy of CBT as an intervention for PPD. CBT is a valid non-pharmacologic treatment option for PPD that can be used for women unwilling or unable to use pharmacological treatment methods. CBT had been shown to significantly decrease postpartum depressive symptomology when provided face-to-face in both individual and group therapy, in distance methods such as internet and/or telephone assisted, and for at risk populations such as low-income and/or minority populations. PPD is a condition that has negative ramifications for both infants and mothers. Nurse-midwifery is a unique profession as they care simultaneously care for both the mother and infant. Therefore nurse-midwives are afforded with the opportunity to assess for, diagnose, and offer CBT as an intervention for those suffering from PPD.

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
			Methodology	Instruments		
<p>Ammerman, R. T., Putman, F. W., Stevens, J., Bosse, N. R., Short, J. A., Bodley, A. L., &amp; Van Ginkel, J. B. (2011). An open trial of in-home CBT for depressed mothers in home visitation. <i>Maternal Child Health Journal, 15</i>(8), 1333-1341. <a href="https://doi.org/10.1007/s10995-010-0691-7">https://doi.org/10.1007/s10995-010-0691-7</a></p> <p>Level: II</p> <p>Quality: B</p>	<p>The purpose of this study was to evaluate the effectiveness of an In-Home Cognitive Behavioral Therapy (IH-CBT) program in the reduction of postpartum depression.</p>	<p>64 depressed mothers from the United States were recruited from a home visitation program and who had completed IH-CBT were compared to 241 mothers from the same setting who met identical screening criteria at enrollment but did not receive the treatment.</p> <p>The IH-CBT participants (64) consisted of first-time, high risk mothers aged <math>\geq 18</math> years, and had an elevated score (<math>\geq 20</math>) on the Beck Depression Inventory II (DBI-II).</p> <p>The comparison group (241) participants also had a DBI-II score of <math>\geq 20</math>.</p>	<p>Quantitative Open Trial</p> <p>The intervention group had IH-CBT delivered in the home by a licensed master's level social worker. Treatment consisted of 15 sessions that were scheduled weekly and lasted 60 min plus a booster session 1 month posttreatment.</p> <p>The comparison group received routine home visits without CBT.</p> <p>Outcomes were measured at pre-treatment, posttreatment, and 9 months follow-up.</p>	<p>Beck Depression Inventory-II (BDI-II)</p> <p>PRIME-MD</p> <p>Brief Patient Health Questionnaire (BPHQ)</p> <p>Maternal Attitudes Questionnaire (MAQ)</p>	<p>Mothers in the treatment group were more likely to have had a 50% reduction in BDI-II scores relative to the comparison group.</p> <p>Pre-post comparisons showed that treated mothers had decreased diagnosis of major depression, lower rates of reported stress, increased coping and social support, and increased positive views of motherhood at posttreatment.</p>	<p>Conclusion:</p> <p>Findings suggest that IH-CBT is a promising approach to addressing maternal depression in the context of home visitation and warrants further study.</p> <p>Recommendations:</p> <p>Recreate the study with a control group instead of a comparison group to determine treatment efficacy.</p>

Citation/Level	Purpose of Study	Sample/Setting	Design	Results	Conclusion
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<b>&amp; Quality</b>			<b>Methodology</b>	<b>Instruments</b>		<b>&amp; Recommendations</b>
<p>Anton, R., &amp; David, D. (2015). A randomized clinical trial of a new preventive rational emotive and behavioral therapeutical program of prepartum and postpartum emotional distress. <i>Journal of Evidence-Based Psychotherapies</i>, 15(1), 3-15. Retrieved from <a href="https://search.proquest.com/docview/1672283846">https://search.proquest.com/docview/1672283846</a></p> <p>Level: I</p> <p>Quality: B</p>	<p>To test the effectiveness of preventive rational emotive and behavioral therapy (REBT) psychological program for prepartum and postpartum depression compared to community care.</p>	<p>48 patients (25 in the control group and 23 in the experimental group).</p> <p>Patients were from Cluj district Roman. Exclusion criteria included a prior diagnosis of any mental disorder and prior history or psychotherapy.</p> <p>Patients were recruited by Internet announcements and referred by their gynecologists or their coaches from their prepartum classes.</p>	<p>Randomized control trial.</p> <p>48 patients were randomly assigned into the REBT treatment group or the control group during the pregnancy or postpartum period. Three mood instrument surveys were given pretreatment, at 5 weeks into treatment and at 9 weeks posttreatment.</p>	<p>Profile of Mood States-Short Version (POMS-SV)</p> <p>Beck Depression Inventory II (BDI-II)</p> <p>State Trait Anxiety Inventory (STAIx1-state and STAIx2-trait)</p>	<p>Pretreatment and middle treatment differences were assessed and no significant difference was found for the three outcomes.</p> <p>Posttreatment showed significant differences for depression (<math>p=.022</math>), negative emotionality (<math>p=0.19</math>), and anxiety (<math>p=.012</math>).</p> <p>3 months postpartum showed significant differences in negative emotionality and anxiety but not depression.</p>	<p>Conclusion:</p> <p>REBT is more efficient at post-treatment than standard community care regarding prevention of depression symptoms, negative emotionality, and anxiety. However at 3 months postpartum the effects are maintained for negative emotionality and anxiety, but not for depression.</p> <p>Recommendations:</p> <p>Recreate this study with a larger sample size.</p>

<b>Citation/Level &amp; Quality</b>	<b>Purpose of Study</b>	<b>Sample/Setting</b>	<b>Design</b>		<b>Results</b>	<b>Conclusion &amp; Recommendations</b>
			<b>Methodology</b>	<b>Instruments</b>		

<p>Austin, M., Frilingos, M., Lumely, J., Hadzi-Pavlovic, D., Ronocolato, W., Acland, S., ... Parker, G. (2007). Brief antenatal cognitive behaviour therapy group intervention for the prevention of postnatal depression and anxiety: A randomised controlled trial. <i>Journal of Affective Disorders, 105</i>(1-3), 1-10. <a href="https://doi.org/10.1016/j.jad.2007.04.001">https://doi.org/10.1016/j.jad.2007.04.001</a></p>	<p>The purpose of the study was to evaluate the effectiveness of an antenatal cognitive behavioral group intervention in a primary care setting for pregnant women identified with mild to moderate symptoms in pregnancy and/or at risk of developing depression or anxiety in the perinatal period.</p>	<p>132 women were recruited from the Royal Hospital for Women in Australia.</p> <p>Participants had an EPDS score &gt;10 and/or a score of &gt;23 on the ANRQ, or a reported prior history of depression. Women with substance abuse, organic brain disorder, psychotic disorders or suicidal ideation were excluded from the study.</p> <p>89 participants were randomized to the CBT intervention group and 43 to the control group.</p>	<p>Randomized controlled trial</p> <p>The CBT intervention group consisted of 6 weekly 2-hour sessions of CBT focusing on the prevention and management of stress, anxiety and low mood in the context of pregnancy and caring for a new baby.</p> <p>The control group participants were given a booklet containing information about risk factors for postnatal anxiety and depression and a list of referrals.</p> <p>Outcomes were measured at baseline, posttreatment, and 2 and 4 months postpartum.</p>	<p>Mini International Neuropsychiatric Interview (MINI)</p> <p>Edinburgh Postnatal Depression Scale (EPDS)</p> <p>State-Trait Anxiety Inventory (STAI)</p>	<p>Results found no reduction in EPDS or MINI depression scores between groups from baseline to 4 months postpartum.</p> <p>The MINI anxiety scores reduced 28% in late pregnancy to 16% at four months postpartum in the CBT group with similar reductions in the control group.</p> <p>Depression scores in the most symptomatic women decreased steadily by over 50% over the total time course but there were no differences in improvement between the CBT and control groups.</p>	<p>Conclusion:</p> <p>There was a significant improvement in depression and anxiety symptoms for all women, however the CBT intervention was not found to be superior to the control condition. Which may be because the information booklet given to the control group was an alternative therapeutic intervention itself.</p> <p>Recommendations:</p> <p>Do a new study in which the intervention group is the information booklet and the control group is treatment as usual to evaluate the efficacy and cost effectiveness of the information booklet.</p>
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Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
			Methodology	Instruments		
Cho, H. J., Kwon, J. H., & Lee, J. J. (2008). Antenatal cognitive-	The purpose of the study was to	Participants included 27 women recruited	Randomized controlled trial.	Beck Depression	Results showed significant	Conclusion:

<p>behavioral therapy for prevention of postpartum depression: A pilot study. <i>Yonsei Medical Journal</i>, 49(4), 553-562.  <a href="https://doi.org/10.3349/ymj.2008.494.4.553">https://doi.org/10.3349/ymj.2008.494.4.553</a></p>	<p>examine the efficacy of cognitive-behavioral therapy (CBT) for the prevention of postpartum depression (PPD) in “at risk” women.</p>	<p>from a university medical center and 2 private obstetric clinics in Korea.</p>	<p>The CBT intervention group consisted of 9 bi-weekly 1 hour individual CBT sessions, targeting and modifying negative patterns of thinking and behaviors occurring in the dyadic relationship.</p>	<p>Inventory (BDI)  Automatic Thought Questionnaire (ATQ)  Synder’s Martial Satisfaction Inventory-R (MSI-R)</p>	<p>differences in all postpartum measures between the CBT and control group, indicating that antenatal CBT was effective in reducing depressive symptoms and improving marital satisfaction, which lasted until the postpartum period.</p>	<p>This study showed preliminary empirical evidence that antenatal CBT intervention can be effective preventative treatment for PPD.  Recommendation:  Recreate this study with a larger sample size.</p>
<p>Level: I  Quality: B</p>		<p>Participants were in late second/early third trimester of pregnancy and had been diagnosed as depressive disorder (major depressive disorder, dysthymic disorder, depressive disorder NOS) through the clinical interview.</p>	<p>The control group was educated about depression and strategies to control symptoms of depression in 1 session during the pretest period, and they assessed only questionnaires related to depression 1 month after child birth.</p>			
		<p>Study exclusions included depressive disorders due to alcohol abuse, bipolar disorder, organic brain disorder, and obstetric complications.</p>				
		<p>15 women were randomized to the intervention group and 12 to the control group.</p>	<p>Outcomes were measured pretreatment and 1 month post parturition.</p>			

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
			Methodology	Instruments		
<p>Dimidjian, S., Goodman, S. H., Felder, J. N., Gallop, R., Brown, A. P., &amp; Beck, A. (2015). An open trial of mindfulness-based cognitive</p>	<p>The purpose of this study was to examine the feasibility,</p>	<p>Participants consisted of pregnant women, from Boulder, CO</p>	<p>Quantitative observational study</p>	<p>Edinburgh Postnatal Depression Scale (EPDS)</p>	<p>Intent to treat analyses indicated a significant</p>	<p>Conclusion:  MBCT-PD shows promise as an</p>

<p>therapy for the prevention of perinatal depressive relapse/recurrence. <i>Archives Womens Mental Health</i>, 18(1), 85-94. <a href="https://doi.org/10.1007/s00737-014-0468-x">https://doi.org/10.1007/s00737-014-0468-x</a></p> <p>Level: II</p> <p>Quality: A</p>	<p>acceptability, and clinical outcomes of depression symptom severity and relapse/recurrence associated with mindfulness-based cognitive therapy (MBCT) adapted for perinatal women.</p>	<p>aged 18+ years, with a diagnosis of MDD. Women with high risk pregnancies, psychotic mental disorders, substance abuse, or homicidal/suicidal ideation.</p> <p>49 women enrolled in the study and 42 participants completed the study.</p>	<p>The MBCT intervention consisted of 8, 2 hour sessions. Following these sessions, participants were given the option of attending a monthly follow-up class.</p> <p>Self-reported depressive symptoms and interview-based assessments of depression relapse/recurrence status were measured at baseline, during MBCT-PD, and through 6 months postpartum.</p>	<p>The Structured Clinical Interview for DSM-IV-TR Axis I Disorders, Patient Version (SCID-I/P)</p> <p>Client Satisfaction Questionnaire (CSQ-8)</p> <p>Longitudinal Interval Follow-up Evaluation (LIFE)</p>	<p>improvement in depression symptom levels and an 18% rate of relapse and/or recurrence through 6 months postpartum.</p>	<p>acceptable, feasible, and clinically beneficial brief psychosocial prevention option for pregnant women with histories of depression.</p> <p>Recommendation:</p> <p>Randomized controlled trials are needed to examine the efficacy of MBCT-PD for the prevention of depressive relapse/recurrence during pregnancy and postpartum.</p>
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Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
			Methodology	Instruments		
<p>Green, S. M., Harber, E., Frey, N., &amp; McCabe, R. E. (2015). Cognitive-behavioral group treatment for perinatal anxiety: a pilot study. <i>Archives Womens Mental Health</i>, 18(4), 631-638.</p>	<p>The purpose of this study examined the effectiveness of cognitive-behavioral group treatment</p>	<p>Participants included 10 women from Ontario, Canada (mean age= 31.2±4.5 years), were referred to a women’s clinic</p>	<p>Quantitative observational study.</p> <p>The CBGT intervention</p>	<p>Penn State Worry questionnaire (PSWQ)</p> <p>Edinburgh</p>	<p>There was a statistically significant reduction in anxiety and depressive</p>	<p>Findings suggest that CBGT for perinatal anxiety is a promising treatment for both anxiety and depressive symptoms experienced during the</p>

<p><a href="https://doi.org/10.1007/s00737-015-0498-z">https://doi.org/10.1007/s00737-015-0498-z</a></p> <p>Level: III</p> <p>Quality: B</p>	<p>(CBGT) program.</p>	<p>at an academic hospital for perinatal anxiety difficulties.</p> <p>Participants were either pregnant or postpartum (within 12 months) and suffering from anxiety.</p>	<p>consisted of 6, 2 hour session that met weekly.</p> <p>The group design was based on traditional CBT complements for anxiety including psychoeducation, cognitive restructuring, problem solving, relaxation, behavioral experiments, assertiveness, and strategies.</p> <p>Outcomes were measured pre and posttreatment.</p>	<p>Postnatal Depression Scale (EPDS)</p> <p>Client Satisfaction Questionnaire (CSQ-8)</p>	<p>symptoms following the CBGT program (all <math>p &lt; 0.05</math>).</p> <p>Participants also reported high acceptability and satisfaction with this treatment for addressing their perinatal anxiety.</p>	<p>perinatal period.</p> <p>Recommendations:</p> <p>Further studies are needed to evaluate the treatment efficacy through larger controlled trials.</p>
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Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
			Methodology	Instruments		
<p>Le, H., Perry, D. F., &amp; Stuart, E. A. (2011). Randomized controlled trial of a preventive intervention for perinatal depression in high-risk latinas. <i>Journal of Consulting and Clinical Psychology, 79</i>(2), 135-141. <a href="https://doi.org/10.1037/a0022492">https://doi.org/10.1037/a0022492</a></p>	<p>The purpose of this study was to evaluate the efficacy of cognitive behavioral (CBT) intervention to prevent perinatal depression in high-</p>	<p>A sample of 217 participants, from Washington, DC, predominantly low-income Central American immigrants who met demographic and</p>	<p>Randomized controlled trial</p> <p>The CBT intervention consisted of 8 weekly 2 hour CBT</p>	<p>Center for Epidemiological Depression Scale (CEDS)</p> <p>Beck Depression Inventory</p>	<p>Results indicated that intervention participants had significantly lower depressive symptoms and fewer cases of moderate</p>	<p>Conclusion:</p> <p>A CBT intervention for low-income, high-risk Latinas reduced depressive symptoms during pregnancy but not during the postpartum</p>



<p>Level: I Quality: A</p>	<p>risk Latinas.</p>	<p>depression risk criteria were randomized into usual care (UC; <math>n = 105</math>) or a CBT group intervention (CBT; <math>n = 112</math>).</p> <p>Participants were recruited from the Washington, DC, area and included women that were aged 18-35 years, <math>\leq 24</math> weeks gestation, no smoking or substance abuse, at high risk for depression, and/or had a personal or family history of depression.</p>	<p>psychoeducational group sessions, teaching women mood regulation skills to prevent perinatal depression. This group also received 3 individual booster sessions at 6 weeks, 4 and 12 months postpartum.</p> <p>Control group was usual care.</p> <p>Outcomes were measured at pre intervention, during early/late pregnancy, and 6 weeks, 4 months, and 12 months postpartum.</p>	<p>Second Edition (BDI-II)</p> <p>Mood Screener (MS)</p>	<p>depression during pregnancy than the control group.</p> <p>The cumulative incidence of major depressive episodes was not significantly different between the intervention (7.8%) and UC (9.6%) groups.</p>	<p>period.</p> <p>Recommendation:</p> <p>Perinatal depression is a significant public health problem, more work is needed to understand risk and resilience and prevent depression in low-income, ethnically diverse pregnant women and mothers.</p>
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Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
			Methodology	Instruments		
<p>Leung, S., Lee, A., Wong, D., Leung, K., Chiang, V., Yung, W., ... Chung, K. (2016). A brief group intervention using a cognitive-behavioral approach to reduce postnatal depressive symptoms: A randomized controlled trial. <i>Hong Kong Medical Journal</i>, 22(2), 4-8. Retrieved from <a href="https://www.ncbi.nlm.nih.gov/pubme">https://www.ncbi.nlm.nih.gov/pubme</a></p>	<p>The purpose of this study was to assess efficacy of 6 sessions of group CBT among postnatal Chinese women in reducing depressive symptoms and the</p>	<p>164 Hong Kong Chinese women were recruited. Participants were <math>\geq 18</math> years, 6 to 8 weeks postpartum, living with their husbands, and had an EPDS score <math>\geq 10</math>.</p>	<p>Randomized controlled trial</p> <p>The CBT intervention group consisted of 6 weekly 2 hour CBT group sessions.</p>	<p>Edinburgh Postnatal Depression Scale (EPDS)</p> <p>Hospital Anxiety and Depression Scale (HADS)</p>	<p>Analysis showed that the CBT intervention significantly corrected dysfunctional cognition.</p> <p>The CBT</p>	<p>Conclusion:</p> <p>Although this short intervention was weakly effective, it might enhance clinician efforts to prevent PPD.</p> <p>Recommendation:</p>

d/26908335	rate PPD at 3 months and 6 months after intervention.	82 women were randomized to the CBT intervention group and 82 to the control group.	The control group was given a booklet that contained comprehensive information and education material about perinatal depression and a list of community resources.  Outcomes were measured at baseline, at 3 months and 6 months after intervention.	Perceived Stress Scale (PSS)  Dysfunctional Attitudes Scales (DAS)  Family APGAR	intervention did not significantly decrease depressive symptoms.	More clinical trials are needed to evaluate the effectiveness of a further enhanced and brief program.
Level: I						
Quality: A						

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
			Methodology	Instruments		
Mao, H., Li, H., Chiu, H., Chan, W., & Chen, S. (2011). Effectiveness of antenatal emotional self-management training program in prevention of postnatal depression in Chinese women. <i>Perspectives in Psychiatric Care</i> , 48(4), 218-224. <a href="https://doi.org/10.1111/j.1744-6163.2012.0031x">https://doi.org/10.1111/j.1744-6163.2012.0031x</a>	The purpose this study was to evaluate the effectiveness of an emotional self-management training program to antenatal women in the prevention of postpartum depression (PPD).	Participants were recruited from the Department of Obstetrics of The First Hospital of Hangzhou, Zhejiang, China from January to December 2009.  Participants had normal uncomplicated births, had an absence of any	Randomized controlled trial.  Emotional self-management group training (ESMGT) program, a cognitive-behavioral treatment (CBT) with elements of Chinese culture of delivery was	Patient Health Questionnaire 9 (PHQ-9)  Structured Clinical Interview for DSM-IV (SCID)  Edinburgh Postnatal Depression Scale (EPDS)	Results:  On completion of ESMGT/standard care at 36 weeks antenatal, the mean PHQ-9 of the intervention group decreased to 5.45 ± 2.42, which was significantly lower than the control group	Conclusion:  The study found that the ESMGT Intervention resulted in a significant improvement of depressive symptoms as compared with the control group as exemplified by the PHQ-9 and EPDS scores. The intervention was also found to effectively decrease the risk to
Level: I						

<p>Quality: A</p>		<p>physical illness, and free of a personal or family history of psychiatric disorders.</p> <p>240 women were recruited into the study. 120 were randomly allocated to the intervention group and 120 to the control group.</p>	<p>provided to the intervention group at 32 weeks gestation. The control group received standard antenatal care.</p> <p>Baseline data was collected by 3 trained maternity nurses and again at 6 weeks follow-up.</p>		<p>(7.23 ± 3.52) (<math>t = 3.34, p &lt; 0.01</math>). The mean EPDS scores at 6 weeks postnatal was significantly lower in the intervention group (6.45 ± 1.09) than in the control group (9.23 ± 2.91) (<math>t = 1.95, p &lt; 0.05</math>).</p>	<p>develop PPD at 6 weeks postnatal.</p> <p>Recommendations:</p> <p>Recreate this study and measure outcomes past 6 weeks postnatal.</p>
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Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
			Methodology	Instruments		
<p>Marrs, J. (2013). Evaluation of the impact of a CBT-based group on maternal postnatal mental health difficulties. <i>Journal of Reproductive and Infant Psychology</i>, 31(1), 72-80. <a href="https://doi.org/10.1080/02646838.2012.747676">https://doi.org/10.1080/02646838.2012.747676</a></p> <p>Level: II</p> <p>Quality: B</p>	<p>The purpose of this study is to evaluate the impact of cognitive behavior therapy (CBT)-based group program on levels of maternal postnatal mental health difficulties.</p>	<p>Participants consisted of women ages 16-40 years, with an EPDS &gt;12, and a child under 1 year old.</p> <p>36 participants, from Scotland, completed the CBT group sessions, but only 33 participated in the follow-up evaluation.</p>	<p>Quantitative observational study</p> <p>The CBT group intervention was based on The Positive Steps program. The intervention consisted of 12 weekly 2-hour group sessions.</p> <p>Outcomes were measured</p>	<p>The Adult Wellbeing Scale</p> <p>Irritability, Depression, Anxiety (IDA)</p> <p>Hospital Anxiety and Depression Scale (HADS)</p>	<p>Participants had significantly improved scores on the depression, anxiety, inward- and outward-directed irritability subscales of the Adult Wellbeing Scale at posttreatment. The proportion of participants whose scores</p>	<p>Conclusion:</p> <p>Participants had significant improvements in their mental health symptoms at post-group assessment. The group appears to be an effective treatment, but results should be interpreted with caution due to the lack of a control group.</p> <p>Recommendation:</p> <p>Recreate the study with a</p>

			pretreatment and posttreatment.		were high enough to indicate a problem in each subscale decreased.	control group.
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Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
			Methodology	Instruments		
<p>Milgrom, J., Holt, C. J., Gemmill, A. W., Ericksen, J., Leigh, B., Buist, A., &amp; Schembri, C. (2011). Treating postnatal depressive symptoms in primary care: A randomized controlled trial of GP management, with and without adjunctive counselling. <i>BioMed Central Psychiatry, 11</i>(95), 1-9. Retrieved from <a href="http://www.biomedcentral.com/1471-244X/11/95">http://www.biomedcentral.com/1471-244X/11/95</a></p> <p>Level: I Quality: B</p>	<p>The aim of this study was to examine the effectiveness of counselling informed by principles of cognitive behavioral therapy (CBT) and delivered by primary care practitioners to women with PPD.</p> <p>The study also sought to answer the question: Is the same treatment delivered by different professionals similarly effective.</p>	<p>68 women, from Melbourne, Australia were randomized between 3 treatment groups.</p> <p>Participants all had an EPDS score <math>\geq 13</math>, an infant aged 6 weeks to 4 months, spoke English, had no psychotic symptoms or need for crisis management.</p> <p>Participants were randomized with a 1:1:1 allocation to</p>	<p>A parallel, 3-group randomized controlled trial</p> <p>Group A: was managed as usual by their own GP.</p> <p>Group B: was adjunctive counselling-CBT from a trained nurse. This group received 6 weekly sessions of the intervention with adjunct GP</p>	<p>Edinburgh Postnatal Depression Scale (EPDS)</p> <p>Beck Depression Inventory II (BDI-II)</p> <p>DSM-IV</p>	<p>All groups showed significant reductions in depressive symptoms and mean post-study BDI-II scores were similar between groups. However women receiving only GP management remained above the cut-off EPDS score of <math>\geq 13</math> than those in Group B and C.</p>	<p>Conclusion:</p> <p>Results of this study indicate the GP management of PND when augmented by CBT-counselling package may be more successful in reducing depressive symptoms in more patients compared to GP management alone.</p> <p>Recommendations:</p> <p>Recreate study with a control group of a GP without extra postnatal depression training.</p>

		the 3 groups, of treatment by either a general practitioner, trained nurse, or psychologist all trained in postnatal depression.	management.  Group C: 6 weekly adjunctive counselling-CBT sessions from a psychologist with adjunct GP management.  BDI-II scores were measured at baseline and post-treatment.		Group B results were $p = 0.347$ and Group C results were $p = 0.247$ .	Recreate study with a larger sample size.
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Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
			Methodology	Instruments		
Milgrom, J., Negri, L. M., Gemmill, A. W., McNeil, M., & Martin, P. R. (2005). A randomized controlled trial of psychological interventions for postnatal depression. <i>The British Psychological Society</i> , 44(4), 529-542. <a href="https://doi.org/10.1348/014466505X34200">https://doi.org/10.1348/014466505X34200</a>  Level: I  Quality: A	The purpose of the study was to establish the efficacy of psychological interventions versus routine primary care for the management of PPD, second to provide a direct comparison of CBT vs counselling, and third, to compare the relative value of group and individual delivery formats.	Participants were recruited from Melbourne, Australia. Participants had a DSM-IV diagnosis of depression, were 37-42 weeks gestation, had an uncomplicated delivery, were free from major health conditions, and psychotic disorders.  A total of 192 participants were randomized to 4 treatment conditions:	Randomized controlled trial  Interventions were 12 weeks duration, including 3 partner sessions, and adhered to a structured manual.  The routine care control group were case-managed by their maternal and child health nurse and referred to	Beck Depression Inventory (BDI)  Beck Anxiety Inventory (BDA)  Social Provisions Scale (SPS)	Psychological intervention was superior to routine care in terms of reduction in both depression and anxiety following intervention.  The percentages of women in each treatment condition whose post intervention scores fell below the threshold for clinical depression (17)	Conclusion:  For those with PPD, psychological intervention is a better option than routine care, leading to clinically significant reduction of symptoms. Counselling may be as effective as group CBT. The benefits of psychological intervention may be maximized by being delivered on a 1-to-1 basis.  Recommendation:

		group-based CBT (46); group-based counselling (47); individual counselling (66); and routine primary care (33).	other agencies/services as necessary.  Outcomes were measured at baseline and posttreatment.		were: CBT 55%, group counselling 64%, individual counselling 59% and routine primary care 29%.	Recreate the study and evaluate outcomes further posttreatment then this study did.
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Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion Authors' Recommendations
			Methodology	Instruments		
Muresan-Madar, A., & Baban, A. (2015). The development and piloting of a CBT group therapy program for postpartum depression. <i>Journal of Evidence-Based Psychotherapies</i> , 15(1), 51-54. Retrieved from <a href="https://web.a.ebscohost.com/abstract?direct=true&amp;profile=ehost&amp;scope=sit e&amp;authtype=crawler&amp;jrnl=23600853 &amp;AN=101895848&amp;h=y8bDImaXy7r nz3YqY0RR2ba5U%2f9%2bZFaMc %2b%2fLa61kDU0ama5tUEnEN5G k0wZcHyNhxA4M%2f4Hy7MQ6OG UFlm3Yug%3d%3d&amp;crl=c&amp;resultNs =AdminWebAuth&amp;resultLocal=ErrC rlNotAuth&amp;crlhashurl=login.aspx%3f direct%3dtrue%26profile%3dehost% 26scope%3dsite%26authtype%3dcra wler%26jrnl%3d23600853%26AN% 3d101895848">https://web.a.ebscohost.com/abstract?direct=true&amp;profile=ehost&amp;scope=sit e&amp;authtype=crawler&amp;jrnl=23600853 &amp;AN=101895848&amp;h=y8bDImaXy7r nz3YqY0RR2ba5U%2f9%2bZFaMc %2b%2fLa61kDU0ama5tUEnEN5G k0wZcHyNhxA4M%2f4Hy7MQ6OG UFlm3Yug%3d%3d&amp;crl=c&amp;resultNs =AdminWebAuth&amp;resultLocal=ErrC rlNotAuth&amp;crlhashurl=login.aspx%3f direct%3dtrue%26profile%3dehost% 26scope%3dsite%26authtype%3dcra wler%26jrnl%3d23600853%26AN% 3d101895848</a>	The purpose of this study was to develop and test a CBT-CT group program for postpartum depression.	60 Romanian women ages 23-37 years, in the first 3 months following childbirth were included in the study. Participants with comorbidities or stillbirth were excluded.  30 women were randomized into the intervention group and 30 into the control group.	Randomized controlled trial  The intervention consisted of 6 weekly 2-hour group sessions followed by a 1 month follow-up session.  The control group consisted of a leaflet on postpartum mood and affective disorders.  Outcomes were measured at pretreatment, 1 month and 3 months following	Edinburgh Postnatal Depression Scale (EPDS)  Profile of Affective Distress (PDA)  Dysfunctional Attitude Scale (DAS)  Automatic Thoughts Questionnaire (ATQ)	At baseline no significant differences were found between the CBT and control group.  Post-intervention showed that the CBT group had significantly lower scores in PPD.  Due to the characteristics of this specific study population, follow-up evaluation could not be provided for the control group at 1 and 3 months	Conclusion:  The CBT intervention was found to be superior to the control group in decreasing postpartum depression symptomology, automatic thought frequency and dysfunctional attitude levels.  Recommendation:  Recreate the study with a larger sample size and study adherence.

Level: I			treatment.		posttreatment. However the CBT group maintained results at 1 and 3 month posttreatment.	
Quality: B						

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
			Methodology	Instruments		
<p>O'Mahen, H., Himle, J. A., Fedock, G., Henshaw, E., &amp; Flynn, H. (2013). A pilot randomized controlled trial of cognitive behavioral therapy for perinatal depression adapted for women with low incomes. <i>Depression and Anxiety, 30(7)</i>, 679-687. <a href="https://doi.org/10.1002/da.22050">https://doi.org/10.1002/da.22050</a></p> <p>Level: I</p> <p>Quality: A</p>	<p>The aim of the study was to examine the preliminary feasibility and effectiveness of cognitive behavioral therapy (CBT) compared with treatment as usual (TAU) for low-income clinically depressed women.</p>	<p>55 low income pregnant women from Michigan with major depressive disorder (MDD), were recruited in the latter stage of pregnancy.</p> <p>Participants were English speaking, free of psychotic symptoms, alcohol or drug abuse, 18+ years old, 24+ weeks gestation, meet DSM-IV criteria for depression, and not currently being treated for depression.</p> <p>Participants were randomly assigned to the CBT (30) and TAU (25) groups.</p>	<p>Randomized controlled trial.</p> <p>CBT intervention group was 12, 50min individual CBT sessions which included an initial engagement session, outreach, specific perinatal content and interpersonal components.</p> <p>TAU group was given materials and referral information for PPD and feedback about their depression status from an on-site social worker.</p>	<p>Edinburgh Depression Scale EPDS</p> <p>Structured Clinical Interview for DSM-IV Axis I Disorders-Patient Edition (SCID-I)</p> <p>Beck Depression Inventory-II (BDI-II)</p> <p>BA for Depression Scale (BADS)</p>	<p>In both observed and multiple imputation results, those who received CBT demonstrated greater improvement in depressed mood than those in TAU at 16 week post-randomization and 3-month follow-up. Cohen's <math>d = -0.71</math> (95% CI-4.93, -5.70).</p>	<p>Conclusion:</p> <p>Modified CBT is a feasible and acceptable treatment for perinatal depressed women in low-income settings.</p> <p>Recommendation:</p> <p>Recreate study with a larger sample size and increase treatment adherence by offering incentives for treatment adherence i.e. food pantries, diapers, and linking treatment with case management services.</p>

			Outcomes were measured pre-treatment, 16 weeks into treatment, and 3 months posttreatment.			
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Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
			Methodology	Instruments		
<p>Pinheiro, R. T., Botella, L., Quevedo, L. D., Pinheiro, K. A., Jensen, K., Osorio, P., ... Da Silva, R. A. (2014). Maintenance of the effects of cognitive behavioral and relational constructivist psychotherapies in the treatment of women with postpartum depression: A randomized clinical trial. <i>Journal of Constructivist Psychology</i>, 27(1), 59-68. <a href="https://doi.org/10.1080/10720537.2013.814093">https://doi.org/10.1080/10720537.2013.814093</a></p> <p>Level: I</p> <p>Quality: B</p>	<p>The aim of this study was to evaluate maintenance of the effects of models of manualized cognitive behavioral therapy (CBT) and relational constructivist therapy (RCT) for 7 sessions with women with postpartum depression.</p>	<p>60 women were recruited from maternity wards in Pelotas, Brazil.</p> <p>Participants resided in the urban zone of Pelotas, were 18+ years old, were free of suicidal ideation, and were not using antidepressants or mood stabilizers.</p> <p>32 women were randomized to the CBT group and 28 to the RCT group.</p>	<p>Randomized clinical trial</p> <p>Those in the CBT group received 7 therapy sessions based on the CBT manual and those in RCT group received 7 therapy session based on the RCT manual.</p> <p>Participants were evaluated at 3 time points: 30-60 days postpartum, immediately after the intervention, and 12 months after the conclusion of treatment.</p>	<p>Beck Depression Inventory (BDI)</p> <p>Mini International Neuropsychiatric Interview (MINI)</p> <p>DSM-IV</p>	<p>Results:</p> <p>The mean BDI scores at baseline and 12 months following treatment were compared and a significant reduction was demonstrated for both CBT (<math>p = 0.5</math>) and RCT (<math>p &lt; 0.001</math>). There was no difference between the effectiveness of the interventions (<math>p = 0.139</math>). A reduction in depression was maintained for 12 months for both CBT and RCT.</p>	<p>Conclusion:</p> <p>Both CBT and RCT are feasible options for the treatment of postpartum depression.</p> <p>Recommendation:</p> <p>Recreate study with a larger sample size.</p>



Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
			Methodology	Instruments		
<p>Prendergast, J., &amp; Austin, M. (2001). Early childhood nurse-delivered cognitive behavioral counselling for post-natal depression. <i>Australasian Psychiatry</i>, 9(3), 255-259. <a href="https://doi.org/10.1046/j.1440-1665.2001.00330.x">https://doi.org/10.1046/j.1440-1665.2001.00330.x</a></p> <p>Level: I</p> <p>Quality: B</p>	<p>The purpose of this study was to (1) establish whether Early Childhood Nurses (ECNs) could be trained in a modified cognitive behavioral therapy (CBT) for postpartum depression (PPD), and (2) to compare the outcome of women treated with this therapy with “ideal standard care” using non-specific counselling by ECNs with no additional training.</p>	<p>Participants included pregnant and postpartum women from Australia with a DSM-IV major or minor depression diagnosis.</p> <p>There was a total of 37 participants with 17 randomly assigned to the CBT intervention group and 20 to the control group.</p>	<p>Randomized controlled trial</p> <p>The CBT intervention group consisted of 6 weekly 1 hour home based CBT sessions.</p> <p>The control group consisted of 6 weekly 20-60 minute standard of care clinic visits for mothercraft advice and non-specific emotional support.</p> <p>Outcomes were measured at baseline, posttreatment, and 6 months follow-up.</p>	<p>Edinburgh Postnatal Depression Scale (EPDS)</p> <p>Montgomery and Asberg Depression Rating Scale (MADRS)</p> <p>Depression, Anxiety, Stress Index (DASS)</p> <p>Parenting Stress Index (PSI)</p>	<p>There was a very high rate of recovery at the initial follow-up with 70-80% recovered (EPDS &lt; 10) in both groups. 6 month follow-up showed a trend towards CBT being more effective in the longer term.</p>	<p>Conclusion:</p> <p>ECNs can effectively provide a modified CBT intervention in the treatment of PPD. For the majority of this sample with mild-moderate depression, perceived support from their ECN appeared to be as effective as modified CBT.</p> <p>Recommendations:</p> <p>Issues such as the difference in location of therapy, home-based versus clinic and differences in severity of depression and number of children need to be addressed in future studies of this kind.</p>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
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<p>Pugh, N. E., Hadjistavropoulos, H. D., &amp; Dirkse, D. (2016, March 1). A randomized controlled trial of therapist-assisted, internet-delivered cognitive behavior therapy for women with maternal depression. <i>PLOS ONE</i>, 1-13. <a href="https://doi.org/10.1371/journal.pone.0149186">https://doi.org/10.1371/journal.pone.0149186</a></p> <p>Level: I</p> <p>Quality: A</p>	<p>The purpose of this study was to conduct a parallel-group randomized control trial to determine the efficacy of Therapist-Assisted Internet-delivered Cognitive Behavior Therapy (TA-ICBT).</p>	<p>50 women were recruited from Saskatchewan, Canada.</p> <p>Participants had given birth in the last year, were 18+ years old, had an EPDS <math>\geq 10</math>, access to a computer with internet, were not receiving psychotherapy, if taking medication, had a stable dose for more than a month, and were free of psychotic mental illness and suicidal ideation.</p> <p>25 women were randomized to the TA-ICBT group and 25 to the control group TAU</p>	<p>Parallel-group randomized control trial.</p> <p>The TA-ICBT group received an 11-session online program consisting of psychoeducation and behavioral exercises moderated by parent supporters and supervised by specialist health visitors.</p> <p>The control group received treatment as usual by a general practitioner (GP).</p> <p>Outcomes were measured at baseline, 7 to 10 weeks follow-up, and 4 weeks posttreatment.</p>	<p>Edinburgh Postnatal Depression Scale (EPDS)</p> <p>Depression Anxiety Stress Scale-Short Form (DASS)</p> <p>Parenting Stress Index-Short Form (PSI-SF)</p> <p>World Health Organization Quality of Life Assessment BREF (WHOQOL-BREF)</p> <p>Therapeutic Alliance Questionnaire (TAQ)</p> <p>Helping Alliance Questionnaire (HAQ-II)</p> <p>Treatment Satisfaction Questionnaire-Modified (TSQ)</p> <p>Credibility/Expectancy Questionnaire (CEQ)</p>	<p>Postpartum depression symptoms decreased more for those in the TA-ICBT group compared to those in the control group. These results were clinically significant and maintained at four-week follow-up.</p> <p>Though not statistically significant, TA-ICBT participants demonstrated a reduction in postnatal anxiety, general stress, and parental distress, and an increase in psychological and environmental quality of life compared to the control group.</p>	<p>Conclusion:</p> <p>TA-ICBT demonstrated to be an efficacious, well-utilized, and desirable intervention for women with PPD. TA-ICBT appeared more efficacious at reducing symptoms of PPD, parental stress, and improved psychological and environmental quality of life.</p> <p>Recommendations:</p> <p>Further investigation of TA-ICBT for PPD comparing TA-ICBT to an active control condition utilizing a larger and more heterogeneous sample, with a longer-term follow-up is required.</p>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
			Methodology	Instruments		
<p>Tandon, S. D., Perry, D. F., Mendelson, T., Kemp, K., &amp; Leis, J. A. (2011). Preventing perinatal depression in low-income home visiting clients: A randomized controlled trial. <i>Journal of Consulting and Clinical Psychology, 79</i>(5), 707-712. <a href="https://doi.org/10.1037/a002-4895">https://doi.org/10.1037/a002-4895</a></p> <p>Level: I</p> <p>Quality: B</p>	<p>The purpose of this study was to assess the efficacy of a 6-week cognitive-behavioral intervention in preventing the onset of perinatal depression and reducing depressive symptoms among low-income women in home visitation programs.</p>	<p>61 participants were recruited from Baltimore City. Participants were pregnant or had a child less than 6 months old, and were assessed as at risk for perinatal depression.</p> <p>Participants were predominately African American, unmarried, and unemployed.</p> <p>32 participants were randomized into the intervention group and 29 into the control group.</p>	<p>Randomized controlled trial.</p> <p>The intervention group consisted of standard home visits plus a 6 week Mother and Babies CBT course, which included 6 weekly, 2hr, sessions delivered in a group format.</p> <p>The control group consisted of standard home visiting services plus information on perinatal depression.</p> <p>Outcomes were assessed at baseline, 1 week and 3 months post intervention.</p>	<p>Center for Epidemiologic Studies Depression Scale (CES-D)</p> <p>Diagnostic and Statistical Manual of Mental Disorders 4<sup>th</sup> edition (DSM-IV)</p> <p>Beck Depression Inventory-II (BDI-II)</p>	<p>Result analysis indicated there was a significant effect for the passage of time relieving symptoms independent of the intervention.</p> <p>When comparing the percentage of intervention between baseline and 3 month post intervention the intervention group showed an 84% reduction in depressive symptoms compared to 41% for the control group (<math>p &lt; .05</math>).</p>	<p>Conclusion:</p> <p>This study provides preliminary data on the efficacy of CBT intervention to prevent perinatal depression among home visiting clients and suggests it is feasible to embed such intervention in home visiting programs.</p> <p>Recommendation:</p> <p>Recreate a larger trial to replicate study findings.</p>

Citation/Level & Quality	Purpose of Study	Sample/Setting	Design		Results	Conclusion & Recommendations
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<p>Van Lieshout, R. J., Yang, L., Harber, E., &amp; Ferro, M. A. (2017). Evaluating the effectiveness of a brief group cognitive behavioral therapy intervention for perinatal depression. <i>Archives Womens Mental Health, 20</i>, 225-228.  <a href="https://doi.org/10.1007/s00737-016-0666-9">https://doi.org/10.1007/s00737-016-0666-9</a></p> <p>Level: II Quality: B</p>	<p>The purpose of the study was to evaluate the effectiveness of a brief group CBT intervention for perinatal depression.</p>	<p>34 participants were recruited from the Women’s Health Concerns Clinic at St. Joseph’s Healthcare, Hamilton.</p> <p>At baseline women were pregnant or in their first 9 months postpartum and had a primary diagnosis of major depressive disorder with or without additional psychiatric comorbidities.</p>	<p>Quantitative observational study</p> <p>The CBT intervention consisted of a 9 week CBT group.</p> <p>The first half of the weekly 2-hour group intervention consisted of core CBT content and the second half involved psychoeducation and guided discussions on topics relevant to women with PPD.</p> <p>Outcomes were measured pretreatment and posttreatment.</p>	<p>Edinburgh Postnatal depression Scale (EPDS)</p> <p>Beck Depression Inventory II (BDI-II)</p> <p>Social Provisions Scale (SPS)</p> <p>Dyadic Adjustment Scale (DAS)</p> <p>Postnatal Bonding Questionnaire (PBQ)</p> <p>Client Satisfaction Questionnaire (CSQ-8)</p>	<p>Women showed statistically significant improvements on all study components.</p> <p>79% of participants experienced a clinically significant decrease in EPDS score and 82% in BDI-II score.</p>	<p>Conclusion:</p> <p>In this sample of pregnant and postpartum women with a primary diagnosis of PPD and psychiatric comorbidity, a brief, manualized group CBT intervention was associated with a clinically significant decrease in depressive symptoms, and significant improvements in social support, mother-infant bonding, and partner relationship quality.</p> <p>Recommendation:</p> <p>Recreate this study with a control group.</p>

Citation/Level	Purpose of Study	Sample/Setting	Design	Results	Conclusion
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& Quality			Methodology	Instruments		& Recommendations
<p>Wozney, L., Olthuis, J., Lingley-Pottie, P., McGarth, P. J., Chaplin, W., Elgar, F., ... Kennedy, J. (2017, July 7). Strongest families managing our mood (MOM): A randomized controlled trial of distance intervention for women with postpartum depression. <i>Archive Womens Mental Health</i>, 20(4), 525-537. <a href="https://doi.org/10.1007/s00737-017-0732-y">https://doi.org/10.1007/s00737-017-0732-y</a></p> <p>Level: I</p> <p>Quality: B</p>	<p>The aim of this study was to investigate whether a distance-delivered intervention would significantly decrease mild to moderate postpartum depression (PPD) in mothers as compared to usual care.</p>	<p>Participants were recruited from Nova Scotia, Canada.</p> <p>Participants were aged 19-45, 1-12 months postpartum, diagnosed with major depressive disorder, were free of suicidal ideation, psychotic disorders and substance abuse, and had not received similar intervention in the past 6 months.</p> <p>62 mothers with PPD were randomized into the intervention group (32) or the standard community care control group (30).</p>	<p>Randomized controlled trial</p> <p>The intervention group consisted of a 12-session CBT information handbook supplemented with telephone-based coaching support.</p> <p>The control group received 2 columns specific to depression and PDD and a brochure on PPD that described the illness, causes, and treatment options. Participants were also encouraged to maintain regular contact with their PCP.</p> <p>One year post randomization those in the control group were offered the MOM intervention.</p> <p>Outcomes were measured at baseline, 3, 6, and 12 months post randomization.</p>	<p>Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR)</p> <p>Edinburgh Postnatal Depression Scale (EPDS)</p> <p>Structured Clinical Interview for DSM-IV-TR Axis I disorders (SCID-I)</p> <p>Beck Depression Inventory-II (BDI-II)</p> <p>MOM Satisfaction Questionnaire</p>	<p>Results:</p> <p>Odds ratios showed that the intervention group mothers were 1.5 times as likely to experience diagnostic remission at 3 months (<math>p = 0.742</math>), 1.54 times as likely at 6 months (<math>p = 0.696</math>) and 12.5 times as likely at 12 months (<math>p = 0.009</math>).</p>	<p>Conclusion:</p> <p>While the MOM intervention was effective enough to support further investigation in the use of distance interventions to treat PPD, these results should be interpreted with caution due to the small sample size.</p> <p>Recommendation:</p> <p>Recreate this study with a larger sample size.</p>

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