Journal of Affective Disorders 177 (2015) 7–21

Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Special review article

A systematic review of the efficacy of cognitive behavioral therapy for treating and preventing perinatal depression

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ARTICLE INFO

Article history:
Received 19 January 2015
Accepted 22 January 2015
Available online 2 February 2015

Keywords:
Cognitive behavioral therapy
Depression
Meta-analysis
Postpartum
Pregnancy

ABSTRACT

Background: Cognitive behavioral therapy (CBT) is an empirically supported treatment for treating and preventing depression that has been widely studied in perinatal populations. Previous meta-analytic reviews of CBT interventions in this population have not investigated potential moderators of treatment efficacy specific to this type of therapy.

Method: Forty randomized and quasi-randomized controlled trials assessing the efficacy of CBT during pregnancy and the first year postpartum were included in the meta-analyses. Change in depressive symptoms from pre-treatment to post-treatment was assessed in both treatment and prevention trials, and the difference in prevalence of postpartum depressive episodes was assessed in prevention trials. Characteristics of included studies, interventions and samples were assessed as potential moderators of effect sizes.

Results: CBT interventions resulted in significant reductions in depressive symptoms compared to control conditions in both treatment and prevention studies. In prevention studies, individuals who received CBT had significantly lower rates of postpartum depressive episodes compared to control conditions. In both treatment and prevention trials, interventions initiated during the postpartum period were more effective than antenatal interventions. In prevention trials, individually-administered treatments were more effective than group interventions and greater reductions in depressive symptoms were found in studies that included higher proportions of nonwhite, single, and multiparous participants.

Limitations: The methodological quality of included studies varied widely among studies eligible for inclusion in the meta-analysis.

Conclusions: There is strong evidence that CBT interventions are effective for treating and preventing depression during the perinatal period. Further methodologically rigorous studies are needed to further investigate potential moderators of treatment efficacy.

Contents

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http://dx.doi.org/10.1016/j.jad.2015.01.052
0165-0327/

1. Introduction

Cognitive behavioral therapy (CBT) is a form of psychotherapy based on the premise that emotional distress and maladaptive behaviors are caused by dysfunctional patterns of cognition (Beck and Haigh, 2014). The goal of CBT is to help patients identify, evaluate, challenge and modify dysfunctional beliefs and alter maladaptive behaviors (Cuijpers et al., 2008). The efficacy of CBT for treating (Cuijpers et al., 2013) and preventing (van Zoonen et al., 2014) major depression is well-established.

One specific population in which cognitive behavioral therapy has been widely utilized is perinatal women. Depression is common during pregnancy and the first year postpartum (Bennett et al., 2004; Gavin et al., 2005). In addition to causing distress and impairment among women who experience perinatal depressive episodes, perinatal depression is associated with a range of adverse fetal and child outcomes. Depression during pregnancy is associated with increased risk of poor birth outcomes, including preterm birth, low birth weight, and preeclampsia (Grote et al., 2010; Kim et al., 2013). Maternal depression during the first year postpartum is associated with poor behavioral, cognitive, and emotional outcomes for children (Goodman et al., 2011; Grace et al., 2003). Importantly, there is evidence that interventions that effectively reduce maternal depressive symptoms may also improve child outcomes (Cuijpers et al., 2014).

Previous meta-analytic reviews of interventions for perinatal depression have found that CBT is effective for the treatment (Cuijpers et al., 2008; Sockol et al., 2011) and prevention (Sockol et al., 2013) of these disorders. While these previous reviews have established the overall efficacy of CBT in perinatal populations, no prior reviews have specifically assessed potential moderators of the efficacy of these interventions in perinatal populations. It is possible that different types of therapy may be more effective in different types of settings or administered in different ways. For example, a previous meta-analysis found that – across all types of therapy – individual treatment was more effective than group treatment (Sockol et al., 2011). However, it is possible that this may differ between types of therapy—perhaps interpersonal psychotherapies are more effective in group formats, while CBT interventions may be more effective administered individually. Previous meta-analyses have not been able to specifically investigate moderators of CBT interventions due to the small number of included studies. The goal of these meta-analyses was to assess both the overall efficacy of CBT interventions in perinatal populations and potential moderators of the efficacy of these interventions.

One potential moderator we investigated in these analyses was the type of cognitive behavioral intervention utilized. Since CBT was initially developed in the 1960s, several more specific approaches have been developed for treating and preventing depression (Beck Institute for Cognitive Behavior Therapy, 2014). Some interventions vary widely in their relative emphasis on either the behavioral or cognitive components of treatment. For example, behavioral activation, an intervention which emphasizes increasing pleasant activities, has been found to be an effective treatment for depression (Cuijpers et al., 2007) and has been implemented as a treatment for perinatal depression (e.g., O'Mahen et al., 2013a). In contrast, "third-wave" cognitive behavioral therapies, such as acceptance and commitment therapy, emphasize changing an individual's relationship to his or her thoughts (Hayes, 2004). Mindfulness-based cognitive therapy, one of the third-wave CBT interventions, has been investigated as a potential preventive intervention for postpartum depression (e.g., Dimidjian et al., 2014). Another cognitive behavioral approach, problem-solving therapy, emphasizes training in adaptive approaches and skills for problem solving and has been used in perinatal populations both for the treatment (e.g., Tezel and Gözüm, 2006) and prevention (e.g., Silverstein et al., 2011) of depression. Finally, many studies include cognitive behavioral approaches as one component of a multi-modal intervention. For example, several studies have assessed combined pharmacotherapy and cognitive behavioral therapy for treating postpartum depression (e.g., Appleby et al., 1997). As previous meta-analyses have not differentiated among these interventions, it is unclear whether specific subtypes of CBT might be more effective in perinatal populations.

We also investigated whether interventions that integrate a social component, such as group interventions and interventions which include women's partners in therapy sessions, differed in efficacy from interventions that did not integrate these components. Inadequate social support is a risk factor for perinatal depression (Robertson et al., 2004). Many women express a preference for support groups as a treatment option (Dennis and Chung-Lee, 2006). Group therapy has also been suggested as a cost-effective way to increase access to treatment (Stevenson et al., 2010). While one previous meta-analysis found that group CBT interventions were effective for treating postpartum depression (Scope et al., 2013), this meta-analysis did not compare group interventions to individual interventions. A woman's relationship with her partner is another important component of the social support available to her during pregnancy and the postpartum period, and marital dissatisfaction is a risk factor for perinatal depression (Robertson et al., 2004). Several CBT interventions have been adapted to explicitly integrate women's partners (e.g., Brugha et al., 2000; Puckering et al., 2010). Previous meta-analyses have not addressed whether involving partners in perinatal interventions is associated with increased efficacy for treating or preventing depressive symptoms. These meta-analyses compared group and individually-administered CBT interventions and assessed whether including a woman's partner was associated with enhanced efficacy for these interventions.

Cognitive behavioral interventions have also been adapted for non-clinic settings in order to address some of the unique needs of women during the perinatal period. Time, transportation and access to childcare are commonly reported barriers to treatment during pregnancy and the postpartum period (Goodman, 2009). In order to address these concerns, CBT has been implemented in home visiting programs (e.g., Ammerman et al., 2013), primary care and hospital settings (e.g., McKee et al., 2006), and via the internet and telephone (e.g., Danaher et al., 2013). These meta-analyses investigated whether the context in which CBT was provided was associated with the efficacy of these interventions.

Given the number of studies that have been conducted assessing various forms of CBT for treating and preventing perinatal depression,