



Cognitive Behavioral Therapy Alleviate Postpartum Depression Symptoms

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Abstract

Introduction: Postpartum women are prone to experience psychological disorders such as baby blues and postpartum depression. Postpartum depression can occur due to prolonged baby blues. Complaints that are often felt include anxiety, difficulty sleeping, lack of confidence and changes in mood. These symptoms can develop into more severe symptoms not only of not being able to pay attention to the baby but also of women being prone to suicide. Various interventions have been developed including pharmacological interventions. Women who have been intervened with drugs complain of the many side effects they experience. Non-pharmacological treatments such as cognitive behaviour therapy have the potential effect to relieve symptoms of depression. Cognitive Behavior Therapy is a psychological intervention model that trains the perceptions of postpartum women to apply solution-based thinking. This technique is often used to intervene in psychological problems.

Aims: The review is to summarize the effectiveness of cognitive behavioural therapy in reducing postpartum depression

Methods: This research is a literature study based on 7 articles screened based on PICO, inclusion and exclusion criteria. We did a review based on research with RCT methods and pre-experimental studies. Review use database Pubmed, Science Direct, and Google Scholar

Results: Based on the available evidence, Both CBT offline and online can reduce symptoms of postpartum depression. A trained midwife can perform CBT. The CBT mobile application can also be developed as a virtual therapy for women with postpartum depression. CBT can be applied during the antenatal period or during the postpartum period.

Conclusion: CBT offline, online or application effective to treat postpartum depression

Keywords: Cognitive Behavioural Therapy, Postpartum, Postpartum Depression.

Introduction

Postpartum women need family support to deal with physical and psychological changes after giving birth. Women who are unable to adapt become stressed and depressed. They are vulnerable to experience postpartum depression (Tolongan et al., 2019, Fauzi et al., 2018). The postpartum depression incidence rate in Asia is around 26-85% (Da Silva Tanganhito et al., 2020). There are several factors that influence postpartum depression, including career problems, life problems, family problems, poverty, prematurity, family support, and low self-esteem (Yang et al., 2022). Endocrine hormones, neurotransmitters, inflammatory mediators, epigenetic factors, and neurobiological factors are also biological factors that influence postpartum depression (Berg et al., 2020). According to research, there is an increase in mortality in mothers with postpartum depression. Mothers who experience postpartum depression tend to commit suicide or kill their babies (Shi et al., 2018).

Pharmacological and psychological treatment has become an intervention for postpartum depression. However, research reports the effects of using antidepressants. Some of the effects that often occur, weight gain, problems in sexual intercourse, but it is also reported psychological numbness and addiction (Cartwright et al., 2016). Psychosocial and psychological interventions proved effective in reducing ongoing postpartum depression in a meta-analysis involving 956 postpartum mothers (Cl et al., 2007). Several psychosocial and psychological interventions that can be carried out based on the latest evidence include peer support, psychotherapy, and intensive home visits. Both of support by health workers or non-health workers can reduce postpartum depression. The sooner the intervention is carried out, the more effective it will be in reducing postpartum depression. Likewise, identification of postpartum mothers who are at risk can prevent postpartum depression (Dennis CL and Dowswell, 2013).

One of the psychological interventions to treat postpartum depression is Cognitive Behavioral Therapy (CBT). This model is based on the theory that perception influences behavior and emotions. This technique involves individual experiences to form a cognitive framework. CBT is carried out to solve problems by professional collaboration. CBT has been studied in a variety of psychiatric problems (Fenn, K., & Byrne, 2013). This literature reviews the effect of Cognitive Behavioral Therapy (CBT) on reducing postpartum depression.

Aim

The purpose of this review is to summarize the effectiveness of cognitive behavioral therapy on reducing postpartum depression.

Methods

This study uses databases PubMed, Science Direct, and Google Scholar. The keywords used were Cognitive Behavioral Therapy, postpartum depression, women in postnatal/postpartum, cognitive behavioral therapy for postpartum depression, postpartum depression, cognitive behavior, cognitive behavioral therapy. PICO framework for this study is:

P (Problem): Postpartum depression women

I (Intervention): *Cognitive Behavioral Therapy* (CBT)

C (Comparison): With or without Control

O (Outcome): symptom reduction of postpartum depression

Inclusion criteria of this study are articles that can be accessed full text in English using Randomized controlled trial method, Quasi experimental studies and Pre-Experimental studies, Articles published in 2018-2022. Articles with cohort studies, case studies, systematic review, metaanalysis and literature review are excluded.

Result and Discussion

According to keyword and PICO framework, we search articles through the Pubmed, science direct, and google scholar databases. There are 1,015 articles were obtained. Furthermore, articles were screened based on title and abstract obtained 38 articles. There were 20 articles duplicates and 10 articles were rejected because the independent variables did not match. About 8 appropriate articles full reviewed. We obtained 1 article in accordance with inclusion criteria. PRISMA diagram can be seen below.

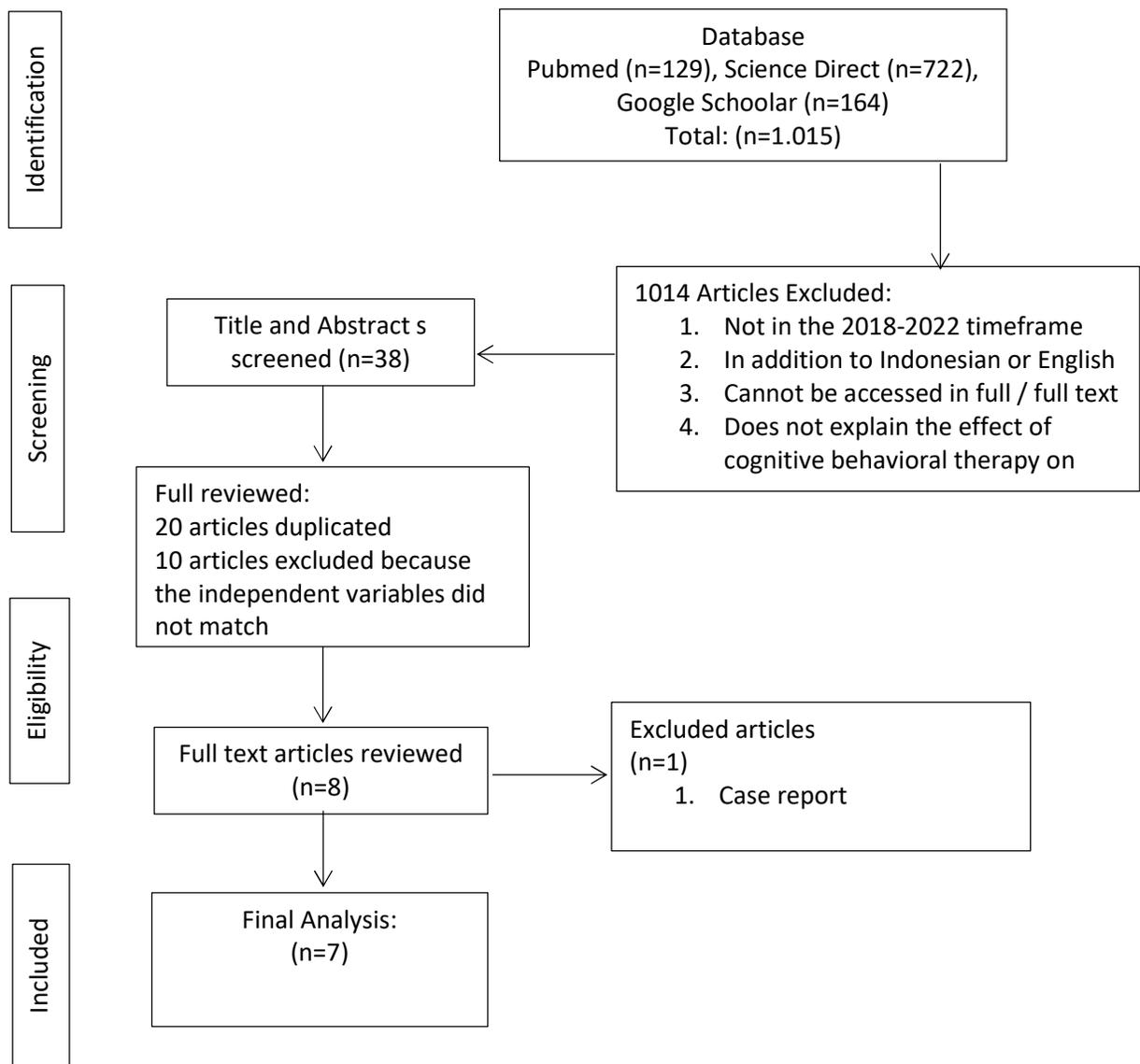


Figure 1. Literature Searching Strategy

The following table is an analysis of the review literature

Table 1. Analysis of the review literature

No	Author	Title	Methods (Design, Sample, Intevention, Instruments)	Result
1	Nazanin Jannati, Shahrzad Mazhari, Leila Ahmadian, Moghaddameh Mirzaee (2020)	Effectiveness of an app-based Cognitive Behavioral Therapy program for postpartum depression in primary care: A randomized controlled trial	D: A non-blinded parallel-group randomized controlled S: 75 postpartum women recruited. Application CBT (n=38) and control (n=37) I: "Happy Mom" mobile application consist of 8 lesson. Each session spent 45-60 min. The app is about the story of postpartum depressive woman. Edinburgh Postnatal Depression (EPDS) responded after 8 lessons.	CBT mobile application can reduce postpartum depression symptoms
2	Hongling Liu and Yang Yang (2021)	Effects of a psychological nursing intervention on prevention of anxiety and depression in the postpartum period: a randomized controlled trial	D: Randomized Controlled Trial (RCT) S: 260 primiparous recruited. Routine intervention+CBT (n=130), routine intervention (130) I: 6 CBT session, 1 hour in a week. Before and after session, women respond Hamilton Depression Scale (HAMD), Hamilton Anxiety Scale (HAMA), Edinburgh Postpartum Depression Scale (EPDS) and Pittsburgh Sleep Quality Index (PSQI)	Pathogenesis of Postpartum Depression and anxiety can inhibited by CBT. Postpartum depression in control group higher than control group
3	Sedighesh Abdollahpour, Afsaneh Keramat, Seyyed Abbas Mousavi, Ahmad Khosravi, Zahra Motaghi (2018)	The Effect of Debriefing and Brief Cognitive-Behavioral Therapy on Postpartum Depression in Traumatic Chilbirth: A Randomized Clinical Trial	D: Randomized Clinical Trial S: 179 postpartum mothers with a history of traumatic delivery. Debriefing group (n=51), CBT group (n=47), Control group (n=82) I: Intervention debriefing was carried out by discussing the mother's experiences during childbirth. Mother expressed her worries and anxieties to the counselor. CBT is carried out so that mothers are able to think positively and increase knowledge about the physical and psychological adaptation of postpartum mothers and help solve problems encountered during postpartum. Counseling was carried out at 48 hours postpartum for 40-60	EPDS scores did not differ between the debriefing group and the CBT group. Both of these methods can reduce the symptoms of postpartum depression

minutes. EPDS measured at 4-6 weeks and 3 months after intervention

4	Jennifer Duffecy, Rebecca Grekin, Hannah Hinkel, Nicholas Gallivan, Graham Nelson, Michael W O'Hara (2019)	A Group-Based Online Intervention to Prevent Postpartum Depression (Sunnyside): Feasibility Randomized Controlled Trial	D: Feasibility Randomized Controlled Trial S: 24 pregnant women with syndrome of depression. CBT group (n=18), control group (n=7) I: CBT peer support via the internet Patient Health Questionnaire-9 scores measured at 4 week and 8 week of postpartum	Internet-based peer CBT can be an alternative intervention for patients with postpartum depression
5	Siobhan A.Loughnan, Christine Butler, Amanda A.Sie, Ashlee B.Grierson, Aileen Z.Chen, et al (2019)	A randomized controlled trial of 'MUMentum, postnatal': Internet-delivered Cognitive Behavioral Therapy for anxiety and depression in postpartum women	D: A Randomized Controlled Trial S: 87 pregnant women as participant. iCBT group (n=43) and control group (n=44) I : MUmentu pregnancy program was an online psychoeducation program completed within 4 weeks. The Kessler-10 psychological distress scale measured before intervention and 4 weeks after intervention	MUmentu pregnancy program reduce anxiety and depression
6	Maryam Dafei, Shahnaz Mojahedi, Ghasem Dastjerdi, Ali Dehghani, Tayebeh Shojaaddini Ardakani (2021)	The Effect of Cognitive-Behavioral Counseling of Pregnant Women with the Presence of a spouse on stress, anxiety, and postpartum depression	D: Quasi Experimental clinical trial S: 40 pregnant women between 28-32 weeks gestation. Intervention group (n=20), control group (n=20) I: Midwife gave a CBT counseling to intervention group in 8 sessions. Each session performed 90 minutes counselling. Psychologist supervised this intervention. DASS-21 measured before intervention and 14 th after birth	CBT counselling effective to reduce stress, anxiety and depression in pregnant women

7	Ricardo Tavares Pinheiro, Jessica Puchalski Trettim, Mariana Bonati de Matos, and <i>et al</i> (2021)	Brief Cognitive Behavioral Therapy in pregnant women at risk of postpartum depression: Pre-post therapy study in a city in southern Brazil	D: pre post therapy study S: 578 pregnant women, CBT group (n=242), Control (n=336) I: six session psychotherapy about prenatal-postpartum mood changes. Each session contains 50 minutes psychotherapy. International Neuropsychiatric Interview (M.I.N.I. PLUS + Brazilian Version 5.0.0) measured 3 months after delivery	CBT preventing PPD symptoms
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CBT is a psychotherapeutic method performed by a therapist to evaluate a patient's beliefs about something. Dysfunctional beliefs are then modified in order to change towards a better behavior (Cuijpers P, et.al, 2013). Through existing evidence with quasi-experimental and RCT methods, the CBT method can be done offline or online. CBT can be performed by midwives who have been trained to prevent and treat postpartum depression.

In the study Liu & Yang, (2021) postpartum women received psychotherapy for 6 weeks, duration 1 hour every week. When the mother gives birth, a psychological evaluation is carried out. Women discuss the physical and psychological changes during the puerperium and then plan activities such as role playing and practicing being a mother. Social support for postpartum mothers is analyzed to help mothers relieve the anxiety they face. Music therapy can also be applied to reduce maternal anxiety during CBT. The therapist guides the mother to learn to breastfeed. Family and husband are involved to accompany mother during CBT period. The CBT study of Abdollahpour et al., (2018) was conducted by MSc Obstetric Counseling. Postpartum women in the first 48 hours after giving birth are given face-to-face counseling for 40-60 minutes each session. Counseling is directed at techniques for managing anxiety, healthy lifestyles during the postpartum period, problem solving and relaxation skills.

In the study Dafei M,et.al (2021) there were 8 CBT sessions. At the end of each session, muscle relaxation is performed. The first session is an introduction stage, learning contracts, psychological training on symptoms of anxiety during pregnancy and postpartum. The second session is an explanation of the CBT method. The third session focuses on evaluating and controlling negative thoughts. The fourth session discussed concerns that are detrimental and beneficial. The fifth session is practicing problem solving. Sixth session of behavioral activation training. The seventh session trains the courage to change negative behavior. The eighth session reviews all material and informs labor estimates.

Implementation of face-to-face CBT was also carried out in pre-post test studies with psychotherapy interventions which were carried out in 6 sessions. Each session spent 50 minutes. The first session identified the worries that lead to depressive symptoms. The second session conducted psychoeducation to straighten out the concerns identified in the first session. In this session, mothers also practice the role of being a mother. The third session applies cognitive techniques in everyday life. The fourth and fifth sessions make strategies for mothers to adapt during the prenatal period. The final session repeats the entire stage to improve problem solving skills(Pinheiro et al., 2021).

Apart from being able to do it face to face, CBT can also be done online. On research Duffecy et al., (2019) Sunnyside website was developed to manage perinatal depression with CBT method. The intervention was carried out for 8 weeks consisting of 16 lessons containing information on pregnancy and postpartum and applying CBT in any changes in perinatal psychology. One lesson can be completed within 10-15 minutes. The early lessons provide women with an understanding that thoughts can affect mood and physique. Generally, online CBT consists of 5 stages, restructuring thinking, identifying feelings, planning and monitoring activities, relaxing and setting goals.

The MUMentum pregnancy program developed by Loughnan et al., (2019) is an internet-based CBT intervention. This program is designed for women with anxiety and depressive symptoms during pregnancy. It consists of 6 lessons which are compressed into 3 lessons. Each lesson features a story of a character experiencing depression during pregnancy, core CBT skills, and an action plan. Mothers also get additional learning resources at each session. The first lesson contains symptoms of anxiety and depression, husband support, cognitive behavioral models as well as relaxation and breathing exercises. The second lesson contains psychoeducation about thinking, diverting excessive thinking, accepting reality, problem solving techniques and how to adapt. In the third lesson, mothers learn how to deal with fears, plan and monitor activities that are positive and can divert stress and prevent relapse of depression.

Apart from being internet-based, CBT is also developed with a mobile application. "Happy Mom" app developed by Jannati et al., (2020), consists of 8 lessons which can be completed in 8 weeks. They tell stories about women who are experiencing depression and how they can overcome these symptoms. Session one discussed postpartum depression. The second session agreed on goals at the end of therapy. The third session explores feelings and emotions. The fourth session discussed how distorted thinking can lead to depression. The fifth session trains mothers to change thoughts that can cause depression. The sixth session is practicing solving problems and thinking positively that things will get better. The seventh session builds good communication skills with the social environment. The eighth mothers session set life goals and make activity plans for a better life.

Conclusion

CBT method consist of an introduction, an understanding of the physical and psychological changes in the perinatal period, identifying psychological problems, emotions and concerns of the women, then training the mother to be able to change her beliefs and think positively to distort wrong thoughts. Accustomed skills with planning activities are needed to deal with relapse.

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