

## How mindfulness-based cognitive behavior therapy and assertiveness training can reduce postpartum depression

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### ABSTRACT

Postpartum depression is a maternal mental health problem that must be treated immediately because it will have a negative impact on the mental health of mothers and babies. Mindfulness-based cognitive behavior therapy (MCBT) and Assertiveness Training are effective short-term psychological interventions that can overcome psychological symptoms such as postpartum depression. The purpose of this study was to determine the effect of Mindfulness based on Cognitive Behavior Therapy and Assertiveness Tarining on reducing symptoms of postpartum depression. The research design used a quasi-experimental method with a pretest-posttest non-equivalent control group design. The study sample amounted to 76 which were divided into two groups, namely the intervention group (38 people) and the control group (38 people). The study was conducted at the Dau Health Center, East Java in September–November 2022 using a research instrument in the form of an Edinburg postpartum depression scale (EPDS) questionnaire. The statistical tests used are the Wilcoxon and Mann-Whitney tests. The results showed that there was a statistically significant difference, namely a decrease in depressive symptoms given by MCBT and AT therapy compared to the provision of deep breath relaxation techniques therapy with value of  $p = 0.000$ . Psychological therapy that combines MCBT and AT is more effective against reducing symptoms of postpartum depression.

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#### Kata kunci:

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### ABSTRACT

Depresi postpartum merupakan masalah kesehatan jiwa maternal yang harus segera ditangani karena akan berdampak negatif pada kesehatan mental ibu dan bayinya. Intervensi terapi psikoterapi Mindfullness berbasis cognitive behavior therapy (MCBT) dan Assertiveness Training merupakan intervensi psikologis jangka pendek yang efektif dapat mengatasi gejala psikologis seperti depresi postpartum. Tujuan penelitian ini untuk mengetahui pengaruh Mindfullness berbasis Cognitive Behavior Therapy dan Assertiveness Tarining terhadap penurunan gejala depresi postpartum. Desain penelitian menggunakan metode Quasi-experimental dengan rancangan pretest-posttest non equivalent control group design. Sampel penelitian berjumlah 76 yang dibagi menjadi dua kelompok yaitu kelompok intervensi (38 orang) dan kelompok kontrol (38 orang). Penelitian dilakukan di Puskesmas Dau Jawa Timur pada bulan September–November tahun 2022 dengan menggunakan instrumen penelitian berupa kuesioner Edinburg postpartum depression scale (EPDS). Uji statistik yang digunakan yaitu uji Wilcoxon dan Mann-Whitney. Hasil penelitian menunjukkan bahwa terdapat perbedaan yang signifikan secara statistik yaitu terjadi penurunan gejala depresi yang diberikan terapi MCBT dan AT dibandingkan dengan pemberian terapi teknik relaksasi nafas dalam dengan nilai  $p = 0.000$ . Terapi psikologis yang dikombinasikan MCBT dan AT lebih efektif terhadap penurunan gejala depresi postpartum.

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## INTRODUCTION

Postpartum depression is a major complication that occurs in a woman after childbirth affecting 15-20% of women worldwide. (Achtyes et al., 2020). Postpartum depression is the most common mental disorder that arises within the first four weeks to 3 months and can last up to 1 year causing health problems for both mother and baby (Tarar et al., 2021) (Jannati et al., 2020) (Schnakenberg et al., 2021) (Wu et al., 2022). The prevalence of postpartum depression is known in Asian countries is quite high, ranging from 28% to 63% (Tarar et al., 2021). In Indonesia, postpartum depression ranges from 3.7% (Putriarsih et al., 2017).

Postpartum depression can be influenced by two factors, namely risk factors and protective factors. Risk factors consist of biological factors, psychological factors and social factors. Biological factors include hormonal roles in the mother's body, health status, care, behavior, neonatal feeding (Zar, 2020) (Stamou et al., 2018). Psychological factors consist of the mental predisposition in the mother to anxiety and depression, fear for her health, the life of the child, and feelings of uncertainty related to the changes that occur in her life. (Zhao et al., 2022). Social factors include discomfort in women felt due to loss of freedom and independence, lack of social support, financial problems, stress during pregnancy, marital problems, domestic violence (Banasiewicz et al., 2020) (Tokumitsu et al., 2020). Protective factors include demographic factors (Guintivano et al., 2018), socioeconomic status with low income (Ezzeddin et al., 2018).

The impact of postpartum depression includes cognitive, behavioral and social (Mavrogiorgou et al., 2022). Cognitive and behavioral impacts include the mother will feel feelings of worthlessness or guilt, reduced concentration, anxiety and suicidal thoughts while the baby will experience poor cognitive function, behavioral barriers, emotional adjustment, violent behavior, externalizing disorders and psychiatric disorders (Slomian et al., 2019) (Huang et al., 2018) (Loughnan et al., 2019a). Social impacts on mother and baby such as impaired care of the baby, lack of communication with social connections, poor relationships with family members that will affect the baby's poor physical growth, infant malnutrition and increased other diseases in the baby (Li et al., 2020).

Therefore, efforts that can be made in women symptoms of postpartum depression are psychotherapeutic therapy (Mavrogiorgou et al., 2022). Psychotherapy therapy is able to change dysfunctional cognitive and behavior into a more reasonable positive way of thinking, changing positive thought patterns, positive thoughts and adaptive behavior, namely Cognitive behavior therapy (CBT) (Simhi et al., 2021). However, cognitive behavior therapy interventions need to be developed in combination to be able to manage psychological problems such as depression (Matsumoto et al., 2019). Currently, some research is developing mindfulness-based psychotherapy developed to manage psychological problems (Loughnan et al., 2019b). One such intervention is Mindfullnes-based cognitive behavior therapy where this therapy is one of the psychotherapies whose results are evidence to develop efficacy in the treatment of depression. It is a psychotherapy given in a structured way that trains to internalize their attention in regulating emotions then externalize and use regulated emotions and attention to manage problems (Yazdanimehr et al., 2016) (Lieshout et al., 2021).

The results of previous studies showed *Mindfulness CBT-based* can produce more significant results than a single CBT intervention so that CBT-based mindfulness intervention can be recommended for long-term intervention in evaluating the effect of MICBT administration on postpartum depression (Yazdanimehr et al., 2016). In addition, to form an assertive attitude and a sense of self-confidence in postpartum women can be given *Assertiveness Training* therapy aimed at interpersonal relationships and communication, so that this therapy can be combined in the treatment of postpartum depressive symptoms. *Assertiveness Training* is a psychological intervention that can increase confidence in social skills in depressive disorders (Lianawati et al., 2021). Results of intervention research evidence *Assertiveness Training* used in several groups and the results were found to be effective in overcoming anxiety and depression (Eslami, Rabiei, Afzali, Hamidizadeh, et al., 2016). So this study is to analyze the effect of Mindfullnes based on Cognitive Behavior Therapy and Assertiveness Training on postpartum depression symptoms.

## METHODS

This study used a quasi-experimental design by design pretest-posttest non equivalent Control Group Design. The study sample was postpartum mothers at a community service health center in Malang Regency, East Java conducted from September to November 2022. Data collection was carried out twice, namely by providing pre test and post test. This study used a research instrument in the form of a questionnaire Edinburg postpartum depression scale (EPDS) (Kleiman, 2021). The sampling technique uses simple random sampling. Inclusion criteria in the form of primiparous and multiparous postpartum mothers, questionnaires Edinburg postpartum depression scale (EPDS) with a score above 10, willing to be a respondent and participate during the research process.

The total sample amounted to 76 respondents divided into 2 groups. The sample size for the treatment and control groups amounted to 38 people each. The intervention in this study was in the form of MCBT and AT given to the intervention group as many as 5 sessions, with a period of 1 week for 60 minutes each session. The content of each session is as follows:

**Table 1. Five MCB and AT Sessions**

Session 1- MCBT	Identify unpleasant experiences, negative thought patterns, maladaptive behavior.
MCBT Session 2	Fight negative thoughts, emerging maladaptive behaviors, mindful breathing exercises.
Session 2 AT	Express assertive needs and desires
MCBT Session 3	Change negative thoughts, maladaptive behaviors that arise, Do mindful breathing exercises again.
Session 3 AT	Saying "No" to irrational requests
MCBT Session 4	Utilizing a Support System
Session 4 AT	Practice accepting disagreements and expressing opinions
MCBT Session 5	evaluate the benefits of this therapy after being given post tests using the EPDS questionnaire
Session 5 AT	Evaluate the benefits of assertive exercise. Conduct a post test using the EPDS questionnaire

Intervention during the study was carried out directly by the researcher because the researcher had received special training from the Community Association of Mental Nursing Union (IPKJI). The treatment group was given MCBT and AT interventions, while the control group was given deep breath relaxation therapy interventions for 5 sessions with each session researchers identified symptoms of depression, practiced deep breath relaxation techniques and so on repeated until the fourth session. The fifth session was evaluated the provision of deep breath relaxation techniques, in this meeting it was given for 15-30 minutes. Univariate tests are performed to measure frequency, mean, standard deviation as well as bivariate tests to measure normality tests, Wilcoxon test and Mann Whitney test. This research has been approved by the ethics committee of Universitas Airlangga, Faculty of Nursing, East Java with number 2560-KEPK.

## RESULTS AND DISCUSSION

Seventy-six postpartum mothers participated in the study divided into 2 groups consisting of 38 intervention groups and 38 control groups according to inclusion criteria. Table 1 shows the characteristics of respondent 2 groups of mostly respondents aged 26 – 35 years. Respondents were mostly high school educated, not employed, most respondents multiparous and respondents mostly normal types of labor. Table 2 shows that there was a decrease in scores before and after the intervention group therapy with a significant p value of 0.000 ( $p < 0.05$ ) strengthened from the range of scores before 11.39 and after therapy 8.21. Table 3 shows that there was a decrease in scores before and after the administration of control group therapy with a significant p value of 0.003 ( $p < 0.05$ ) strengthened from the range of scores before 10.24 and after therapy 9.45. Table 4 shows the difference in the influence of the intervention group and the control group, the results of the analysis test obtained a significant p value of 0.000 ( $p < 0.05$ ) that the effect of MCBT and AT administration is more effective than the administration of deep breath relaxation techniques.

**Table 2**  
**Distribution of Respondents in the Intervention Group and Control Group (n=76)**

Characteristic	Category	Intervention Group		Control Group		Total	Percentage (%)
		Sum (N)	Percentage (%)	Total (N)	Percentage (%)		
Age	18 - 25 Years	12	31.6 %	20	52.6 %	32	31.1%
	26 - 35 Years	23	60.5 %	14	36.8 %	37	35.9%
	36 - 45 Years	3	7.9 %	4	10.5 %	7	6.8 %
Total						76	100 %
Education	SD	10	26.3 %	4	10.5 %	14	18.4 %
	JUNIOR	11	28.9 %	13	34.2 %	24	31.6 %
	SMA	12	31.6 %	19	50.0 %	31	40.8 %
	BACHELOR	5	13.2%	2	5.3 %	7	9.2 %
Total						76	100 %
Work	Not Working	37	97.4 %	35	92.1 %	72	94.7 %
	Work	1	2.6 %	3	7.9 %	4	5.3 %
Total						76	100 %
Parity	Pirimipara	14	36.8 %	18	47.4 %	32	42.1 %
	Multiparous	24	63.2 %	20	52.6 %	44	57.9 %
Total						76	100 %
Types of Childbirth	Usual	22	57.9 %	26	68.4 %	48	63.2 %
	SC	16	42.1 %	12	31.6 %	28	36.8 %
Total						76	100 %

Source. Primary Data, 2022

**Table 3**  
**Effect Analysis before and after administration of intervention group therapy**

	N	Mean	Std. Deviation	Sig.(2-tailed)
Before MCBT and AT therapy	38	11.39	718	
After MCBT and AT therapy	38	8.21	413	0.000

Source. Primary Data, 2022

**Table 4**  
**Effect Analysis before and after administration of control group therapy**

	N	Mean	Std. Deviation	Sig.(2-tailed)
Before Deep Breath Relaxation Therapy	38	10.24	542	
After Deep Breath Relaxation Therapy	38	9.45	1.005	0.003

Source. Primary Data, 2022

**Table 5**  
**Analysis of Differences in influence between the Intervention Group and the Control Group**

	N	Mean Rank	Z	Asimp Sig.(2-tailed)
MCBT and AT interventions	38	19.74		
Deep Breath Relaxation Intervention	38	57.26	- 7.564	0.000

Source. Primary Data, 2022

Postpartum depression that is felt in women during the puerperium if not given proper treatment to reduce symptoms of depression will cause the risk of symptoms of major depression. Thus, it is necessary to handle psychological therapy to overcome the symptoms of moderate depression through the provision of nursing interventions, namely the provision of MCBT and AT therapy. Depressive symptoms in postpartum women decreased after MCBT and AT therapy. MCBT therapy is basically a therapy that focuses on problem solving that encourages action from awareness and acceptance of one's thoughts, emotions and bodily sensations, beliefs and aims at changing negative thought patterns (Yazdanimehr et al., 2016) The mechanism of MCBT therapy performance is by bringing perceptual and cognitive changes, addressing emotional regulation, balance, changes in thought patterns and decreasing psychological pressure that can change emotional changes in overcoming problems in life (Francis et al., 2022).

MCBT therapy not only changes emotional balance but can change behavior that can be adaptive. The symptoms of postpartum depression can be experienced include interpersonal relationships that cannot be assertive, the ability to express feelings and thoughts, and open communication with others directly and honestly (Rezayat & Dehghan Nayeri, 2014). Assertiveness training is an action to train to communicate with others, interact socially assertively and express their feelings without hurting which can violate the rights of others. The mechanism in Assertiveness Trainig therapy is to improve close relationships with others, increase the effectiveness of social relationships, express various positive needs, express feelings, confidence, and improve social communication skills (Vagos & Pereira, 2016)(Eslami, Rabiei, Afzali, & Hamidizadeh, 2016). The importance of self-confidence and being acritive in revealing perceived needs and desires.

Results of previous studies in which MCBT therapy can improve positive emotional regulation and are effective in reducing the risk of depressive symptoms (Yazdanimehr et al., 2016). The results of other studies also argue that MCBT therapy provides good cognitive enhancement so that it can reduce symptoms of postpartum depression, increase positive emotions, increase self-confidence levels (Yan et al., 2022). Assertiveness Training therapy is associated with good cognitive abilities, being able to be assertive, so as to reduce symptoms of depression. The effect of MCBT and AT therapy becomes more optimal when combined with other treatments, these two therapies have shown a decrease in symptoms of postpartum depression.(Skowron, Fingerhant, & Hess, 2014)

## CONCLUSIONS

This study showed that psychological therapy combined with MCBT and AT was effective in reducing symptoms of postpartum depression. The importance in health services is to identify postpartum mothers in mental health problems

and efforts in managing the risk of postpartum depression. Future research can re-examine the effectiveness of Mindfullness therapy based on Cognitive Behavior Therapy and Assertiveness Training on reducing postpartum depressive symptoms in other places or urban areas using different methods and a larger number of samples.

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