# THE EFFECT OF COGNITIVE BEHAVIOR THERAPY AND ELIP METHODS ON BOUNDING BREASTFEEDING AMONG MADURA TRIBE BLUES POST PARTUM

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## ABSTRACT

**Background:** Until now, the prevalence of post-partum blues has increased every year in all countries. In developed countries such as America, the prevalence of post-partum blues from 25% in 2010 to 85% in 2015. In Asia 20%-60% of postpartum women experience post-partum blues out of 1000 live births, while in Indonesia it reaches 15%. which was carried out in February 2020 in the northern Surabaya region with the target of postpartum mothers 48 hours to the seventh, 27 out of 33 postpartum mothers showed symptoms of post-partum blues with various levels. This figure means that 81% of mothers giving birth experience post-partum blues and this results in the bounding of mother and child, decreases in lactation hormones and even continues to become psychosis. The purpose of this study was to determine the quality of bounding and breastfeeding behavior in postpartum mothers with post-partum blues in urban Madura, Surabaya.
**Subjects and Method:** This was an experimental study with non-equivalent control group design conducted in urban Madura, Surabaya. A total of 80 mothers included in this study were divided into 50 mothers as the CBT and 30 mothers as the ELIP groups. The dependent variable was the incidence of post-partum blues. The dependent variables were quality of bounding and breastfeeding behavior. The data were collected using questionnaire then analyzed using t-test.
**Results:** There was a difference in bounding quality (Mean= 6.68; p= 0.003) with breastfeeding behavior (Mean= 6.32; p=0.004) on the incidence of post-partum blues.
**Conclusion:** There is a difference in bounding quality with breastfeeding behavior on the incidence of post-partum blues.

**Keywords:** bounding, behavior, breastfeeding, CBT, ELIP

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## BACKGROUND

Until now, the prevalence of post-partum blues has increased every year in all countries. In developed countries such as America, the prevalence of post-partum blues from 25% in 2010 to 85% in 2015. In Asia 20%-60% of postpartum women experience post-partum blues out of 1000 live births, while in Indonesia it reaches 15% (Ningrum, 2017; O'Hara & McCabe, 2013; Upadhyay et al., 2017). A preliminary study conducted in February 2020 in the northern Surabaya region with the target of postpartum mothers for 48 hours to the seventh found that 27 out of 33 postpartum mothers showed symptoms of post-partum blues with various levels. Measurements were performed using the Edinburgh Postnatal depression questionnaire scale with criteria for post-partum mothers of 3 to 7 days.

Symptoms that are often complained of include feeling tired quickly, unable to sleep well, often dizzy, lazy to breastfeed the baby, feeling alone, the infant is very troublesome and often daydreaming (Jones et al., 2010; VanderKruik et al., 2017)


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Post-partum blues is a One of the conditions that is often experienced by postpartum mothers on day three today seven, and can evolve into psychosis if the condition is not treated properly, Post-partum blues is defined as mild mental changes with symptoms of anxiety and worry. These symptoms often do not get attention and are ignored by families and even health workers so that mothers tend to find solutions to problems themselves. Post-partum blues results in maternal and child bounding, decreased lactation hormone and even continues to become psychosis (Abdollahi et al., 2016; Ningrum, 2017; Qiftiyah, 2018)

Bounding is a physical and psychological attachment between mother and child that is formed from birth and continues. forever despite distance and time (Laborie et al., 2020; Otsuka & Taguri, 2014; Ratnasari et al., 2017)

Breastfeeding behavior is the act of giving breast milk to infants either directly or by milking (Gewa & Chepkemboi, 2016; Otsuka & Taguri, 2014) The

post-partum blues management is still not optimal. This condition is caused by the mother's ignorance of her condition and ignoring the existing symptoms, the unavailability of special post-partum blues facilities, the lack of support from both the system and the community. Several methods recommended in the case of post-partum blues include pharmacological therapy, interpersonal therapy, religiosity therapy, Brief psychodynamic therapy, general counseling, cognitive behavior therapy, exercise life style intervention program (Beck et al., 2020; CL Dennis, 2014; Miniati et al., 2014; Zakiyah, 2014)

Cognitive Behavior Therapy (CBT) is an effective approach in cases of anxiety. CBT significantly affects thought patterns, emotions and inadequate behavior, but this method is still not used as a model of care in post-partum blues cases (Ebrahimipour et al., 2015; Jones et al., 2010; O'Mahen et al., 2012, 2013)

Exercise Life Style Program Intervention (ELIP) is a form of lifestyle training program carried out by a homogeneous group with one tutor. Through this program all members can create a lifestyle program exercise together. The training program agreed upon by the group. ELIP is effective in increasing inter-group support so as to help each member find solutions to problems experienced (Aşcı & Rathfisch, 2016; Kieffer et al., 2013)

Based on the above background, the researchers are interested in examining the differences in CBT and ELIP methods in improving the bounding of mother and infant and breastfeeding behavior in mothers with post-partum blues which is then used as a study material in providing care for the impact of post-partum blues, especially in Madurese ethnicity.

## SUBJECTS AND METHOD

### 1. Study Design

This was an experimental study with non-equivalent control group design conducted in urban Madura, Surabaya.

### 2. Population and Sample

A total of 80 mothers included in this study were divided into 50 mothers as the CBT and 30 mothers as the ELIP groups. Sampling used total sampling with the inclusion criteria for first to seventh day postpartum mothers, primiparous, multiparous, normal delivery, screened with The Edinburgh Postnatal Depression Scale (EPDS) with score> 5 through online screening and as urban Madurese more than two years. Sampling was divided into 50 CBT groups and 50 ELIP groups.


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### 3. Study Variables

The dependent variable was the incidence of post-partum blues. The dependent variables were quality of bounding and breastfeeding behavior.

### 4. Study Instruments

The instrument used were the bounding and breastfeeding behavior questionnaire. While the CBT worksheet includes identifying problems of thought, self-conflict, behavior, coping management while the ELIP worksheet is prepared based on activities carried out during the post-partum period including caring for infants, caring for themselves, breastfeeding infants socially or interacting with family and the environment

### 5. Data Analysis

Normality test using the homogeneity test with p>0.05 and the Kolmogorov-Smirnov test with p> 0.05. While the analysis test used the independent t test with p <0.05.

## RESULTS

### 1. Frequency distribution

Table 1 explains that the mean bounding in the CBT group was 42.9 and breastfeeding was 43.5, while in the ELIP group the mean bounding was 49.5 and breastfeeding was 49.8. These results describe that each group has good quality bounding and breastfeeding behavior.

**Table 1. Frequency distribution**

| Group | n | Mean | |
|---|---|---|---|
| | | Bounding | Breastfeeding |
| CBT | 50 | 42.9 | 43.5 |
| ELIP | 50 | 49.5 | 49.8 |

### 2. Characteristics of Respondents

Table 2 described that most of the primiparous respondents, 76% Primiparous, tended to experience higher post-partum blues than multiparous because their experience adapting to their conditions was still less. Respondents were at the third day of the puerperium at 38%, 30% on the second day and 20% on the fourth day. This suggests that the post-partum blues begins on the second day and peaks until the fourth post-partum day.

**Table 2. Characteristics of respondents**

| Respondents | Frequency | % |
|---|---|---|
| **Parity** | | |
| **Primipara** | 79 | 76 |
| **Multipara** | 21 | 20 |
| **Postpartum day** | | |
| Day 2 | 30 | 28 |
| Day 3 | 38 | 36.5 |
| Day 4 | 20 | 19.2 |
| Day 5 | 6 | 5.8 |
| Day 6 | 3 | 2.9 |
| Day 7 | 3 | 2.9 |

### 3 Homogeneity and normality test

Table 3 explains the results of the homogeneity test using the F test, the p value for the bounding variable is 0.96 and the p value for the breastfeeding variable is 0.46, where p> 0.05, which means that the two variables have the same variant. The results of the normality test with Kolmogorov Smirnoff showed a p value of 0.26 where p> 0.05, which means the data is normally distributed. These two results make it an absolute prerequisite for the independent t test to be performed.

**Table 3. Homogeneity and normality test results**

| Variable | Homogeneity | KS |
|---|---|---|
| | p> 0.05 | |
| Bounding of | 0.96 | 0.2 |
| breastfeeding | 0.46 | 6 |


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**4. Paired t test**

Table 4 explains that there is a difference in the mean before and after being given treatment. The mean bounding before being given the CBT and ELIP methods was 16.21 and after being given was 46.24 with a significance of 0.932 (> 0.05). Meanwhile, the mean of breastfeeding behavior before treatment was 16.42 and after treatment was 46.68 with a significance value of 0.632. The results of the sig value of 2 tails for each variable obtained a value of 0.001. Overall results explain that there is a significant difference in the mean after being given CBT and ELIP treatment.

**Table 4. Paired t test results**

| Variable | Mean | Sig | Sig 2 tailed |
|---|---|---|---|
| Bounding | | | |
| Pre | 16.21 | 0.932 | 0.001 |
| Post | 46.24 | | |
| Breastfeeding behavior | | 0.632 | 0.001 |
| Pre | 16.42 | | |
| Post | 46.68 | | |

Table 5 presents the independent t test with the results of equality of variance assumed on the bounding variable of 0.98 and on the breastfeeding variable of 0.49 where the p value is greater than 0.05, which means that the data variations of the CBT and ELIP groups are homogeneous or the same so that the independent t test decision can be continued with the results of the equal of assumed where the p value on the bounding variable is 0.003 ($p < 0.05$) and the breastfeeding variable is 0.004 ($p < 0.05$). This result is also supported by the mean deference or difference between the CBT and ELIP groups on the bounding of -6.680 and breastfeeding behavior of -6.320. In addition, the t value for the bounding variable obtained 3.018 and the t count for breastfeeding behavior was 2.961 where this result was greater than the t table, namely 1.984. These results can explain that there are differences in bounding quality and breastfeeding behavior after being given the CBT and ELIP methods.

**5. Independent t test**

**Table 5. Independent t test**

| Group | Equality variance assumed $p < 0.05$ | Mean deference | t count | t table |
|---|---|---|---|---|
| Bounding | 0.98 | 6.680 | 3.018 | |
| | p = 0.003 | | | 1.984 |
| Breastfeeding behavior | 0.49 | 6.320 | 2.961 | |
| | p = 0.004 | | | |

## DISCUSSION

### Cognitive Behavior Therapy (CBT) with Post-partum Blues

Based on the results of the independent t test, the p value bounding was 0.003 and breastfeeding behavior was 0.004, which means that there are differences in bounding quality and breastfeeding behavior after being given the CBT and ELIP methods

**1. Positive thoughts**

Postpartum mothers with the Post-partum blues often experience obstacles in the implementation of bounding, which is marked by mothers reluctant to touch their infants, tend to entrust their infant care to other people and their closest relatives, having thoughts that the infant is troublesome. While various negative thoughts of


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breastfeeding behavior are characterized by lazy breastfeeding, changing breast milk to formula milk, worrying about pain during breastfeeding, worrying about not enough milk. Both of these conditions lead to neglect in the infant which has an impact on the next period of development and even tends to kill the baby. These negative thoughts and worries are influenced by various factors including lack of knowledge, wrong perceptions, culture, lack of experience in infant care. This opinion is in line with the research of Vander-Kruik, et al (2013) and Jones, et al (2010) (Jones et al., 2010; Vander-Kruik et al., 2017) All respondents are Madurese who believe that formula feeding and early complementary feeding (rice and bananas) can nourish the infant and the infant grows up quickly. In addition, the belief that traditional healers and grandmothers are more trusted in caring for infants has an impact on the disruption of the bounding between mother and infant for forty days.

CBT is a method that focuses on the thoughts and feelings of the respondent. Through CBT, individuals are directed to have positive beliefs about their condition by building positive thoughts and understanding the helplessness and new role of mothers. Thus, the individual is stimulated to immediately build his own strength. This opinion is supported by the research results of O. Mahen, et al (2012; 2013) (O'Mahen et al., 2012, 2013).

Interpersonal communication strategy is one of the approaches applied in CBT. This technique can change the mindset so that individuals can adjust the level of concern. This opinion is in accordance with the research of Zakiyah (2019) which states that the CBT method is able to change the mindset (Zakiyah, 2014) In line with the opinion above, the research of Muresan-Madar & Baban (2015) explains that Besides being able to change the mindset, this method can increase self-confidence both from knowledge and from culture (Muresan-Madar & Baban, 2015) Meanwhile, according to O 'Mahen et al (O'Mahen et al., 2012) that the CBT method able to influence the way of thinking, emotional and behavior of individuals.

**2. CBT with behavior**

Behavior is defined as a collection of individual expressions of the environment in the form of action as a result of external and internal stimulation. While the general description of breastfeeding behavior in mothers with post-partum blues of the Madurese tribe includes breastfeeding when the infant wakes up because he is reluctant to wake the baby, so it can take more than two hours, giving mashed rice mixed with bananas because he believes that food can be protected from various diseases. rely on traditional healers to care for their infants. This condition is caused by excessive worry, lack of knowledge and experience of the dilemma between cultural and scientific values.

CBT is an effective method for building strategies for improving maladaptive behavior. Through the behavior strategy approach, which is implemented in the form of priority activities, it can give individuals the opportunity to arrange, choose, sublimate activities that are deemed necessary so that they do not conflict with culture. This opinion is in line with the research of Kao, et al. (2015) and Muresan-Madar (2015) that CBT is an implementation of a behavior strategy so that it can improve negative behavior (Kao et al., 2015; Muresan-Madar & Baban, 2015)


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### 3. CBT with self-conflict management

Self-conflict management is defined as the synchronization of all aspects of behavior and attitudes towards interpersonal conflicts so as to produce the desired resolution and solution. Madurese post-partum mothers tend not to reveal interpersonal conflicts to other people or their families because they are worried that they are considered unable to carry out the role of mother and wife. One approach to CBT is specific skill training, which is a compilation of interpersonal communication methods and self-efficacy. Interpersonal communication is able to activate the neurotransmitter dopamine so that individuals feel emotional stability, calmness, and reduce the level of anxiety. This condition stimulates adaptive behavior so that mothers can carry out bounding and breastfeeding without being burdened by fanatical cultural values while evaluating the choice of behavior that has been programmed. Meanwhile, the self-efficacy approach promotes control assistance and motivation for mothers to better understand and enjoy the role of mother. The target of this approach is to provide emotional support is effective conflict management so as to improve perceptions and behavior. This opinion is in line with the research of O'Mehen., Et al (2015) which resulted that interpersonal communication and self-efficacy is an approach that can change the cognitive and emotional areas of individuals so as to improve behavior and minimize individual conflict. The above opinion is also supported by the results of Dennis & Cindy Lee's research in 2014 which states that individual conflict can be reduced by a psychosocial approach that involves other people, family, peers (C.-L. Dennis et al., 2017; O'Mahen et al., 2012)

### 4. Exercise Life Style Program (ELIP) with Post-partum Blues

ELIP is a healthy lifestyle exercise program which contains several programs including postpartum activities, Intensive care puerperium, newborn care, postpartum nutrition and stress management. Implementation is carried out jointly between the facilitators and other respondents. This program is carried out for 4 weeks with details of 12 face-to-face meetings for 1.5 hours. This program triggers mutual motivation among respondents, controls activities, improves coping mechanisms and increases motherhood and self-efficacy. This opinion is in line with a study by Motolla et al. (2011) which stated that a lifestyle exercise program was able to stimulate the formation of capacity building and group behavior change. Asci's research in 2016 concluded that lifestyle program training can change the perceptual, cognitive and behavioral domains of a group so that changes occur together (Aşcı and Rathfisch, 2016; Mottola et al., 2011)

Based on the results of the independent t test, it was found that there were differences. The mean significantly the quality of bounding and breastfeeding behavior in the two groups. CBT is a psychotherapy consisting of behavior strategy, communication skills, coping mechanism, self-efficacy. Some of the things studied in the implementation of CBT in this study include self-control, belief, culture, motherhood, and support.

ELI which is a form of lifestyle training in the post-partum blues of the Madurese tribe which is compiled together with a program that has been agreed by the group so that between group participants can play a role in controlling each other, motivating, reminding so that social support is achieved, changing perceptions,


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changing mindsets and changing behavior has been implemented.

CBT and ELIP is a method to change the quality of bounding and behavior in post-partum blues mothers.


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