The Effect of Massage Therapy With Effleurage Techniques as A Prevention of Baby Blues Prevention on Mother Postpartum

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Abstract

Several research results showed cases of mothers who received Baby Blues and Postnatal Depression is quite high. One in two women who gave birth (50%) had experienced Baby Blues, and about 10% will continue to Postnatal Depression. Baby blues events can be given treatment with complementary therapies one of them is with massage effleurage. The purpose of this research is to know the effect of massage effleurage to baby blues event. This research uses the quantitative method with pre-experimental analytic research design and its approach is one group pretest-posttest, this research conducted ± 4 months. The target of this research is postpartum mother ≥ 7 days to 6 weeks postpartum which amounted to 30 respondents. Data was obtained from the respondents using a questionnaire filled by the mother himself using EPDS instruments before and after the intervention. The screening was done before the intervention, Intervention was done 2 times a week, then after the intervention mother was told to fill out the EPDS questionnaire. Data analysis was done by "t dependent test" to know the effect of Treatment Massage with Effleurage technique as prevention of baby blues in postpartum mother. The result of this research is the result of positive baby blues event before the massage effluerage is done 46.7%, meanwhile, it shows that the respondent does not experience the baby blues symptoms before the massage effluerage is 53.3%. After the massage effluerage for 2 times, a week decreased compared before the massage effluerage was done by 20%, whereas that showed that respondents did not experience the symptoms of baby blues after the massage effluerage increased by 80%. Based on the results of T-Dependent test obtained P-value <0.05 (α) which means that there is influence effluerage massage technique to the Baby Blues event in the working area of Lubuk Buaya Public Health Center Padang, Indonesia. From the result of research can be concluded The existence of decrease of baby blues event after done massage effluerage that is from 46.7% to 20%, influence effluerage massage technique to Baby Blues event

Keywords: Massage Effleurage, Baby Blues, Postpartum
Introduction
The birth of a baby is an important event for the life of a woman and her family. Women experience many emotional changes during pregnancy and the puerperium to fit into a mother. The postpartum period for 6 weeks or 40 days according to lay count is the puerperium. This period is important to continue to be monitored because the implementation of less than maximum can cause the mother to experience various problems, even can continue on postpartum complications such as postpartum depression during childbirth (Sarli, 2017).

The postpartum period is a critical time, in which the mother may feel very tired, and anxious. Anxiety is one of the most common complaints in the postpartum period. In a previous study by (Field, 2016), 30% of mothers giving birth reported experiencing anxiety or baby blues during the puerperium period. The prevalence of postpartum anxiety is also reported to be 18% in studies in Maryland in the US and 12.7% in a study in South Australia (Sockol, Epperson, & Barber, 2013). In Vancouver, Canada, the incidence of postpartum depression was reported to be 14.2% in the first week after delivery, 12.1% in the fourth week, and 9.2% in the eighth week.

Baby blues is one of mild depression which can happen to post-partum mother where the mother has hypochondria onset and it is accompanied by related symptoms. Recent studies find out that baby blues and post-natal depression on recent-childbirth mother is quite high. One of two recent-childbirth mothers (50%) gets baby blues and 10% continue to develop post-natal depression. Around 70% of all mothers which have been delivering get baby blues onset and 10-20% of mothers get post-partum depression (Anderson & Maes, 2013).

Many post-partum mothers are experiencing excessive emotions such as deep sadness with motiveless crying. In this mental state, we cannot see mother smiling or feels happy. Some mothers feel afraid, worried, and tense. Small minor problems can trigger baby blues if it is not settled at once (Botulinum & Study, 2014).

Some mothers also feel uncomfodoed, pain, agony, and it cannot be relived with any prescription. Almost all of them feel tired, weak, or stressed at any time after childbirth. Besides, it is frequently found that they have a sleep disorder and sometimes they not slept for a week.

Anxiety can delay or prevent the release of oxytocin during breastfeeding periods and potentially disrupt breastfeeding reflexes (Jahdi et al., 2016). Baby Blues can reinforce the mother’s behavior away from her baby, as well as affect the emotional bond between mother and baby, placing a bond between mother-baby at risk (Tiez & Zietlow, 2014), the latter can cause psychological harm to children (Glasheen, 2010). In addition, anxiety is a very strong predictor of postpartum depression (Lonstein, 2007).

As early diagnosis of postpartum depression can help prevent subsequent depression, interventions need to be designed to reduce this disorder. Various methods have been used to reduce depression, with touch therapy and massage (Lonstein, 2007).

The prevalence of the incidence of postpartum depression and the cost of expensive treatment has resulted in half of the patients taking alternative treatments, including massage so that it is the most applied therapy for patients with postpartum depression (5.2%) (Sherman et al. 2010).

Massage regulates the autonomic nervous system and therefore decreases levels of cortisol, adrenaline, and noradrenaline. It can also adjust the activity of the nerves, the frontal brain, and the control tissue. In addition, massage stimulates sensory afferent fibers in the skin, affecting the human body and mind (Sarli & Agus, 2014). Intermittent pressure applied during massage improves blood circulation and lymphatic drainage (Meftahi et al. 2014), which causes changes in heart rate and blood pressure (Ejindu, 2007).

Massage also causes muscle relaxation, which leads to an increase in the immune system, relieves pain, and ultimately reduces postpartum depression. Relaxation in the postpartum period reduces the pressure of the
sympathetic nervous system and can prevent postpartum depression, and can also improve the effective mother-infant relationship. The use of complementary treatments in postpartum care may reduce pharmacological intervention.

Use of complementary therapies in postpartum care by applying massaging techniques (Field et al., 2010). Massage techniques that are developed and used by midwives are massive effleurage. Massage effleurage is a massage technique using the palm of the hand with a circular motion pattern on the abdomen, waist or thigh. Abdominal, waist and thigh effleurage is one of the non-pharmacological methods commonly used in the Lamaze method to reduce stress on postpartum mothers (Parulian, Sitompul, & Oktrifiana, 2013).

Effleurage is an application of Gate Control Theory because this technique is done by stimulating the skin by massaging the surface of the body which results will be maximal if done without a barrier in the form of clothing. The strength of emphasis when effleurage is different in each mother. Perhaps some women prefer a very mild pressure but others prefer with a stronger emphasis. Massage should be done rhythmically so that the mother can breathe slowly and regularly (Wardani & Herlina, 2017).

The application of nonpharmacological therapy to overcome postpartum anxiety is a method that all midwives must develop. This will indirectly help mothers to undergo postpartum so as to reduce the risk of postpartum mother to experience baby blues. Therefore researchers interested in conducting research on the Effect of Massage Therapy with Effleurage technique as an effort to prevent baby blues in postpartum mother.

**Methods**

This research uses the quantitative method with pre-experimental analytic research design and its approach is one group pretest-posttest. The population of this study was postpartum mothers ≥ 7 days to 6 weeks postpartum in the Work Area of Lubuk Buaya Public Health Center of Padang City. Sampling technique in this research is using Quota Sampling which amounts to 30 people. Data were collected from data obtained from the respondents using a questionnaire filled by the mother himself using EPDS instruments before and after the intervention. The screening was done before the intervention, Intervention was done twice a week, then after the mother intervention was told to fill out the EPDS questionnaire to compare screening results before and after the intervention. Data analysis was done by "t dependent test" to know the effect of Treatment Massage with Effleurage technique as prevention of baby blues in postpartum mother.

**Result**

### 1. Characteristics of Respondents

Table 1: Characteristics of Respondents by Age, Parity, Education, Employment in the Work Area of Lubuk Buaya Public Health Center

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>20-35 th</td>
<td>20</td>
<td>66.7</td>
</tr>
<tr>
<td></td>
<td>&gt; 35 th</td>
<td>10</td>
<td>33.3</td>
</tr>
<tr>
<td>Parity</td>
<td>Primipara</td>
<td>12</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td>Multipara</td>
<td>18</td>
<td>60.0</td>
</tr>
<tr>
<td>Education</td>
<td>Elementary</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td>Junior High S</td>
<td>8</td>
<td>26.7</td>
</tr>
<tr>
<td></td>
<td>Senior High</td>
<td>12</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td>University</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Work</td>
<td>No work</td>
<td>23</td>
<td>76.7</td>
</tr>
<tr>
<td></td>
<td>Work</td>
<td>7</td>
<td>23.3</td>
</tr>
</tbody>
</table>

Based on table 1, the age proportion of respondents is the most aged 20-35 years of 66.7% and those aged> 35 years of 33.3%. This indicates that the age of the respondents is more aged 20-35 years than the age of> 35 years when sampling takes place.

The highest proportion of respondents was Multipara (60%) and Primipara (40%). This shows that the parity of respondents is more Multipara than Primipara.

The highest education proportion of respondents is high school education 40% and the lowest educated elementary school 13.3%. While the educated junior high by 26.7% and PT by 20%. This indicates that the average education of respondents with high school education.
The highest proportion of work was unemployment of 76.7% and employed by 23.3%.

2. Baby Blues Event Before and after Massage Effleurage

Table 2. Baby Blues Occurrence Before Massage Effleurage

<table>
<thead>
<tr>
<th>Baby Blues</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>16</td>
<td>53.3%</td>
</tr>
<tr>
<td>Positive</td>
<td>14</td>
<td>46.7%</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100%</td>
</tr>
</tbody>
</table>

Based on table 2 shows the result of positive baby blues event before done effleurage massage 46.7%, while showing that the respondent did not experience the baby blues (negative) before done massage effleurage that is equal to 53.3%.

Table 3. Baby Blues Occurrence After Massage Effleurage

<table>
<thead>
<tr>
<th>Baby Blues</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>24</td>
<td>80%</td>
</tr>
<tr>
<td>Positive</td>
<td>6</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100%</td>
</tr>
</tbody>
</table>

Based on table 3 shows the results of the baby blues event (positive) after the massage effleurage done for 2 times a week decreased compared before the massage effleurage was done by 20%, whereas that showed that respondents did not experience the symptoms of baby blues after the massage effleurage increased by 80%.

3. The Effect of Massage Effleurage on Baby Blues Occurrences

Table 4 Effects of Massage Effleurage on Baby Blues Occurrences

<table>
<thead>
<tr>
<th>T-Test</th>
<th>Paired Sample Test</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>0.267</td>
<td>0.450</td>
<td>3.247</td>
</tr>
</tbody>
</table>

Based on table 4 shows that the T-Dependent test results obtained P-value <0.05 (α) which means that there is the effect of effleurage massage technique on Baby Blues occurrence in working area of Lubuk Buaya Public Health Center Padang.

Discussion

1. Respondent characteristic

Based on table 1, the proportion of respondent's age is the most aged 20-35 years is 66.7% and the age is 35 years old 33.3%. This indicates that the age of the respondents is more aged 20-35 years than the age of> 35 years when sampling takes place.

Based on the research Kurniasari & Astuti, said that the elderly are usually susceptible to depression. This study is in line with the presence of a minor age influence with postpartum blues events that in elderly postpartum mothers aged ≥ 30 years was associated with the mental readiness of the woman to become a mother (Kurniasari & Astuti, 2015).

The optimal age range for mothers is 20-35 years (not high risk). At this time is expected a mother has the ability to solve problems encountered with emotional calm, especially in the face of childbirth (Kurniasari & Astuti, 2015).

Researchers assume that age> 35 years is more prone to baby blues because mothers have a high risk of pregnancy, labor, and childbirth, so more often experience anxiety is very high during pregnancy, childbirth, and puerperium.

The highest proportion of respondents was Multipara (60%) and Primipara (40%). This shows that the parity of respondents is more Multipara than Primipara.

This is in line with the theory that Psychological and physical stress associated with new obligations as mothers can lead to emotional crises that can ultimately inhibit maternal adaptation to maternal roles (Tiez & Zietlow, 2014).

This is in line with the theory that Psychological and physical stress associated with new obligations as mothers can lead to emotional crises that can ultimately inhibit maternal adaptation to maternal roles.
Based on the result of research the most work proportion is not work equal to 76.7% and work equal to 23.3%. The status of working mothers and have regular or non-working income (only performing routine duties as housewives) tend not to affect the psychological condition of post-skeleton mothers because maternal employment status is more influential to increase family income.

The researcher's assumption is the status of work related to the income status of the family because the postpartum mother feels in the newborn many needs for the baby, such as diapers, baby clothes, etc. Based on the results of research, the highest proportion of educated respondents is senior high school education 40% and the lowest educated elementary school 13.3%. While the educated junior high by 26.7% and PT by 20%. This indicates that the average education of respondents with senior high school education.

Women who have Highly education face roles and conflicts, between demands as women who have the urge to work or do their activities outside the home, with their role as housewives and parents of their children (Lonstein, 2007).

In this study, the researchers assume that the understanding of health in mothers with high school education is not as good as college-educated mothers, because mothers who experience baby blues consider unimportant information about health, the average lazy mother to dig health information.

### 2. Baby Blues Event Before and after Massage Effleurg

Based on table 2 shows the result of positive infant blues event before the effleurgage was done by 46.7%, while the respondent did not experience the baby blues symptoms before the massage effleurgage was 53.3%.

Based on table 3. shows the results of the baby blues event (positive) after the massage effleurgage done for 2 times a week decreased compared before the massage effleurgage was done by 20%, whereas that showed that respondents did not experience the baby blues symptoms after the massage effleurgage increased by 80%.

Baby Blues is a mild depression that occurs in mothers within a few hours after delivery, up to several days after delivery, and then it will disappear by itself if given a good psychological service (Desi Sarli, 2017).

According to Ade's research, 2017 there was a mother who experienced baby blues by 40% before the massage effleurgage intervention and 60% of normal respondents, however, after the intervention of 100% of normal respondents. A score decrease after intervention (Widiyanti, 2017).

### 3. The Effect of Massage Effleurgage on Baby Blues Occurrences

Based on table 4 shows that T-Dependent test results obtained P-value <0.05 (α) which means that there is the effect of effleurgage massage technique on Baby Blues event in Lubuk Buaya Public Health Center working area.

According to Ade's research, 2017 there was a mother who experienced baby blues by 40% before the massage effleurgage intervention and 60% of normal respondents, however, after the intervention of 100% of normal respondents. A score decrease after intervention (Widiyanti, 2017).

Effleurgage technique is a light, rhythmic massage technique, and uses light massage on the back, waist, abdomen or thigh (Field et al., 2010). This technique can provide relaxation and relief of pain, especially when done on the surface of the body without being blocked by cloth or clothing (Wulandari & Hiba, 2015).

With the massage on the spinal muscles, there is stimulation in the spinal cord which serves as a nerve link between the brain and the peripheral nervous system (Anderson & Maes, 2013). All communication up and down the spinal cord lies in the ascending jar (tract) that transmits signals from afferent input to the brain. The gastric substrate located in the
middle of the spinal cord contains an interconnecting link between the afferent input and the efferent output and the cell body of the efferent neuron (Botulinum & Study, 2014). Afferent and efferent fibers, each carrying signals to and from the spinal cord, converge into spinal nerves. These nerves are attached to the spinal cord in pairs along the chordae. So it will lower the levels of cortisol hormone and increase relaxation in the mother (Sarli & Agus, 2014).

According to the researcher's assumptions, with massage effleurage in the puerperium mother, which is done for 2 times a week, gives comfort and relaxation to the mother, thereby decreasing cortisol hormone levels. So that the mother who experienced baby blues with intervention massage effleurage experienced a very significant change that is the decrease in the score of the mother experienced baby blues.

**Conclusion**

Characteristics of respondents based on age, parity, education, and occupation were aged between 20-30 years, the most dominant parity was multiparous, average mother's education at high school level and more unemployed mothers, of these characteristics most mothers experience baby blues.

The decrease of baby blues event after massage effleurage is done from 46.7% to 20%.

The influence of effleurage massage technique on Baby Blues occurrence.

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**References**


