

The Role of the Husbands via the Endorphin Massage on the Occurrence of Postpartum Blues in Primiparous Postpartum Mothers

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Abstract--- *The role of the husband's is very necessary when it comes to helping the mother have an endorphin massage. The aim of this research is to determine the effectiveness of endorphin massages on primiparous postpartum mothers. A quasi-experimental design with a posttest approach only with a control group was used. The population consisted of postpartum mothers for 3-10 days. This research used total sampling to get 56 respondents. The population was divided into 2 groups, namely the case group and the control group. The case group was given a massage once a day everyday for 20 minutes. The treatment was done for 2 weeks. The control group wasn't given a massage. The postpartum blues were measured using the Edinburgh Depression Postnatal Score (EPDS) questionnaire scale. The results of the data after tabulation were processed using an independent paired sample t-test. The results show that the postpartum blues of the mothers who had an endorphin massage were less severe than the blues of the mother who had not received an endorphin massage. The difference was 29,62 points. The results obtained a p value = 0.0001 and $\alpha < 0.05$, which obtained the result that there is impact from the endorphin massage on postpartum blues. An endorphin massage given by the husband is effective at reducing the rate of postpartum blues. Thus an endorphin massage can be used as an alternative to the postpartum mothers reducing their stress levels during lactation.*

Keywords--- *husband's role, endorphin massage, postpartum blues.*

I. INTRODUCTION

In the period after childbirth, a woman must be able to adjust well to the changes in activity and her new role as a mother in the first weeks and months after giving birth both physically and psychologically. However, some fail to adapt and they experience psychological disorders with various syndromes that researchers and clinicians call postpartum blues. Postpartum blues have been known about for a long time as mild mental disorders due to the unsuccessful result of women adjusting to their new activities and roles after giving birth. They fail to overcome any existing conflicts, beginning with the symptoms of psychological disorders [1].

Postpartum blues are a mild postpartum dysphoria condition known as milkless because the symptoms of dysphoria appear together with poor lactation. Postpartum blues are often also called maternity blues or baby blues. This is interpreted as a syndrome of mild adverse effects that can occur from the first day after delivery in the taking-in

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phase. It tends to worsen from day 3 to day 5 and it lasts within the period of 2 weeks postpartum. It is characterized by symptoms such as sadness or dysphoria, crying, irritability, unstable feelings, tending to blame the self, difficulty concentrating, irritability, headaches, confusion, forgetfulness, sleep disorders and appetite disorders[2].

Epidemiological data shows that 10-20% of women experience mood disorders during pregnancy and postpartum. In Indonesia, the incidence rate is that almost 50-70% of postpartum women will experience postpartum blues. Most will recover in less than 2 weeks but 13% will experience postpartum depression [3]. Pieter & Lubis stated that 50-70% of all postnatal women will experience this syndrome. Preliminary studies through interviews and questionnaires conducted in Sugio sub-district focused on 12 postpartum mothers found that 7 (58%) experienced postpartum blues who given birth to their first child [4]. The exact cause of postpartum blues is unknown. Many factors are thought to cause postpartum blues and other factors include hormones, decreased levels of estrogen, progesterone, prolactin and estradiol. Other factors causing postpartum blues include social support, parity, level of education and planning for postpartum pregnancy being very influential regarding the postpartum emotional disorders. This is because estrogen inactivates noradrenaline and serotonin which plays a role in mood changes and depressive events [5]. The demographic factors are age and parity. This is in addition to experience of the process of pregnancy and childbirth, a lack of support from the family, the husband's psychosocial background and emotional disappointment.

The husband wants to provide mental support and encourage the mother. The role of the husband is the biggest factor triggering the occurrence of postpartum blues. This is because the husband's support is an important coping strategy when experiencing stress. It serves as a preventive strategy to reduce stress. One form of husband support is by taking the time to give their partner a light massage on the shoulders and back. Light massages are done through physical touch that is full of love and affection. This, in addition to providing physical contact and establishing closeness between the husband and wife when the wife is breastfeeding her baby, also has the effect of increasing the production of breast milk. This close and harmonious physical and mental contact will build the confidence of the new mother [6].

The symptoms of postpartum blues can disappear for several hours, days, weeks or months before potentially developing into a more severe condition. Postpartum blues are often ignored, meaning that they are not diagnosed often as a result. Mental disorders among puerperal mothers if left untreated will be a problem that is difficult and unpleasant. It can become the more severe condition of postpartum depression which has a worse impact especially on the marital relationship and on child development [7].

The emergence of endorphins in the body can be triggered through various activities such as deep breathing, relaxation and meditation and massage. The sensation of relaxation in the mother may be recommended through massage therapy, acupuncture, yoga, exercise, relaxation, hypnosis, music therapy and aromatherapy. Through increasing the husband's role in the puerperium by giving a gentle endorphin massage full of love, this can help to stimulate the production of endorphin hormones that can help to control the feelings of stress. It can also release the discomfort after childbirth, increase muscle relaxation, release discomfort and enhance the immune system. This so can prevent psychological problems during the postpartum period.

II. METHODS

The research design uses was quasi-experimental with a randomized posttest only control group design approach. The population was all of the mothers postpartum for 3-10 days, totaling 56. Using total sampling, the sample of 28 was divided into the treatment group to be given an endorphin massage conducted by her husband. Beforehand, it was explained how to massage according to the SOP guidelines and how to use the activity checklist. The control group was not given endorphin massage. The inclusion criteria were that the mothers had given birth via vaginal delivery and that they were 3-14 days postpartum, primiparous postpartum and breastfeeding, that the mother and baby did not

incur complications and that the husband lives in the same house with his wife. The researcher taught the respondent's husband about how to give an endorphin massage. The endorphin massage is done once a day at night for 20 minutes on the right arm and on the left, in addition to the neck and lower back (5 minutes each) for 2 weeks. The husband gave the endorphin massage to his wife at night. The incidence of postpartum blues was measured using the Edinburgh Depression Postnatal Score (EPDS) questionnaire containing 10 items with the values per item being 0-3. The results of the data after tabulation were processed using an independent paired sample t-test with $\alpha = 0.05$.

III. RESULTS

Table 1. The demographic data of the respondents (n = 56)

Characteristics	Indicators	Control group		Intervention group	
		Frequency	%	Frequency	%
Age (years)	<20	2	7.2	0	0
	21-35	26	92.8	28	100
	>35	0	0	0	0
Education	Elementary	0	0	0	0
	Middle School	10	35.7	6	21.4
	High school	18	64.3	20	71.4
	College	0	0	2	7.2
Profession	Housewife	20	71.4	24	85.7
	Farmer	0	0	0	0
	Entrepreneur	8	28.6	4	14.3
	Government employees	0	0	0	0
	Labor	0	0	0	0
Breastfeeding Status	Breastfeeding/ Formula (Partial)	6	21.4	10	35.7
	Exclusive breastfeeding	22	78.6	18	64.3
	Postpartum Blues				
Postpartum Blues	The possibility of PP blues is low				
	Postpartum Blues	14	50	24	85.7
	Signs of possible PPD	12	42.9	4	14.3
	Postpartum Depression	2	7.1	0	0
		0	0	0	0

Table 1 shows that most postpartum mothers in the control group (92.8%) and the intervention group (100%) were aged 21-35 years old. The majority of postpartum maternal education in the control group (64.3%) and the treatment group (71.4%) was that of high school. Almost all of the postpartum mothers were housewives. Almost half the mothers with postpartum blues are in the control group (78.6%) and intervention groups (64.3). The partial control group (42.9%) of postpartum mothers experienced postpartum blues while the intervention group was almost entirely (85.7%) made up of mothers who had low postpartum blues.

Table 2. Frequency of Postpartum Blues in the Primiparous Control and Intervention Groups

Group EPDS	EPDS ≥ 12		EPDS < 12	
	Σ	%	Σ	%
Control	14	50	14	50
Intervention	4	14.3	24	85.7

Table 3. Difference in Mean Postpartum Blues Occurrence

	Mean	Standard Deviation	P
Endorphin Massage Group	23.84	2.52	0.001
No Massage Group	53.46	3.90	

Table 3 shows that the incidence of postpartum blues in the mothers undergoing an endorphin massage was lower than those in the group without an endorphin massage. The difference is 29.62 points. Statistically, the results of the t test show that there is a significant difference with a value of $p = 0.0001$. It can be concluded that there is an effect of endorphin massage on the incidence of postpartum blues.

IV. DISCUSSION

The results obtained a p value = 0.0001, $\alpha < 0.005$. The results obtained show that there is an influence from an endorphin massage on the incidence of postpartum blues. In postpartum mothers undergoing an endorphin massage, the incidence of postpartum blues is lower. This is because endorphin massage includes non-pharmacological therapy by doing massages or light touches on the surface of the skin. This can increase relaxation, making the feeling more comfortable through the surface of the skin. Touch therapy can normalize the heart rate and blood pressure and it can increase the release of endogenous opioid hormones (endorphins) as there is a decrease in the level of stress hormones in the blood. An endorphin massage can stimulate the large-diameter nerve fibers and the parasympathetic fibers in the mesencephalon. This can reduce stress, thereby helping the mothers adapt to the postpartum period and helping them to forming bonds between the mother, husband and child. Besides that, it can fulfill the response to the partner's sexual activity before the postpartum period is over. Due to physical and psychological factors of the mother, sex is also a trigger for the release of endorphins[8].

Massage is an effective, safe and simple method of care and it does not cause adverse effects for either the mother or baby. Massage on the back stimulates certain points along the spinal cord meridians that are transmitted through large nerve fibers to the reticular formation, thalamus and limbic system of the body to release endorphins. This can be used as an epidural analgesic to reduce pain and stress, providing comfort to the mother. Endorphin massage is a good alternative treatment intervention for the prevention and treatment of postpartum depression. Massage is considered to have physiological and psychological benefits because it lowers blood pressure, increases lymphatic circulation and increases the threshold for pain. Based on the previous research, the group of women given a back massage had a significant increase in their level of β -endorphins compared to before the massage. In other studies, the treatment of mothers with postpartum blues with an endorphin massage increased the level of the endorphin hormone while their EPDS levels significantly decreased after the massage compared to before the massage. There is a significant negative correlation between β -endorphin levels and EPDS scores. Depressive disorders after 2 weeks of treatment showed signs of readaptive renovation and the activation of endurance. Endorphin massage has a beneficial effect, causing a change from severe depression to mild depression in the postpartum mothers in Indonesia.

β -endorphins are components of the hypothalamic-pituitary-adrenal axis that are released into peripheral blood during stress, injury, mental tension and exercise as an immune regulator. Research conducted in Florida shows that, when the consisted of healthy adults as the research subjects, there was no significant difference in the levels of β -endorphins and β -lipotropins in the treated group and those that were not. Endorphins are secreted by the pituitary gland during illness, stress.

One method that can cause endogenous analgesics (endorphins) is by increasing the circulation of the neurotransmitters produced naturally by the body in the neural synapses along the central nervous system. When touch and taste are stimulated together, the sensation of touch takes control of the descending thalamus to secrete endorphins that close off the conduction of pain in the spinal cord. Massage has a distracting effect that can produce opiate receptors in the brain and spinal cord. The central nervous system secretes endogenous opiates (endorphins) through the descending control system. A loving massage can affect the stress levels and levels of the hormone prolactin in primiparous mothers. The occurrence of the symptoms of postpartum blues in partial breastfeeding mothers is 1.82 times greater than in mothers who are breastfeeding fully [9].

The women who had given birth to their first child, due to the existence of changes during pregnancy and especially the increase in hormones, can experience severe anxiety levels and a sense of caring. They accept a new role in a crisis situation, which can lead to postpartum blues [10]. This is in accordance with the criteria of mothers who are emotionally disturbed and of primiparous mothers who have no experience caring for children [11]. Other studies

show that there is a significant relationship between breastfeeding infants aged <10 days with the symptoms of postpartum blues. The factor of unplanned pregnancy also affects the incidence of postpartum blues. Bobak (2004) stated that one of the factors that can cause postpartum blues is an unwanted or unplanned pregnancy. Many researchers have pointed out that the risks may be worse when they are of a young age, of a low sociodemographic status and have inadequate social support, especially from their partners [12]. Blom and their colleagues conducted research which showed that the mothers who experience serious complications during pregnancy and childbirth such as premature birth, sudden Caesarean section and preeclampsia have a higher risk of postpartum psychological disorders [13]. Research shows that the difficulty adapting in the postpartum period is related to feeling that there is a lack of help, experiencing an overload of tasks that they cannot overcome, limited social contact and a feeling of persistent fatigue [14]. Emotional disturbances in the postpartum period have a significant impact on the formation of the mother and child relationship. [15].

Support from the husband is a coping strategy when experiencing stress. It serves as a preventive strategy to reduce stress. It is very supportive of the husband that they are around when needed by the women in the postpartum period, especially for women who are at a high risk of experiencing mood disorders after childbirth.

The husband holds an important role and they are expected to realize that the wife needs the massage at certain times. The husband is expected to be there when their wife needs support in the form of support as an assessment, information and financially as needed [16].

V. CONCLUSION

Endorphin massage is needed by postpartum mothers to prevent postpartum blues. The husband, as the closest person, is expected to provide assistance by providing an endorphin massage.

CONFLICT OF INTEREST

This study does not have the potential to cause a conflict of interest. This study only links 2 variables and does not cause physical harm to the respondents. All of the participants gave written informed consent before participating and the confidentiality of their identity was protected.

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