

The Impact Of Deep Back Massage Method To Pain Intensity And Duration Of Labor On Maternal Inpartu With Active Phase I At Klinik Bersalin Firdaus Banjarmasin

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ABSTRACT

Background : The long duration of labor is one of the factors causing maternal death. The duration of labor of stage I in primipara has a longer duration compared with multiparas. The long duration of labor causes pain last longer so that the mother will being at risk of fatigue which result in emotional response such as anxiety, tension, fear and panic. One way to reduce pain and long duration of labor is the method of deep back massage.

Objective : To know the impact of deep back massage method to pain intensity and duration of labor on maternal inpartu with active phase I at klinik bersalin firdaus banjarmasin year 2017

Methods : This research uses Pre Experimental with 2 designs: *Intact Group Comparison* and One - Group Pretest-Posttest Design. Statistical test is done by using Paired sample T-test and Mann-Whitney test for the impact of *deep back massage* method to pain intensity and duration of labor on maternal inpartu with active phase I

Result : The result of paired sample t-test shows the value: $p = 0,000$ ($p < 0.05$) which means there is impact of deep back massage method to pain intensity and Mann-Whitney test shows value: $p = 0,000$ ($p < 0,05$) Which means there is influence of deep back massage method on the duration of labor.

Conclusion : From this exsperiment, it can be concluded that deep back massage has an impact to pain intensity and duration of labor on maternal inpartu with active phase i at klinik bersalin firdaus Banjarmasin.

Keywords : Deep Back Massage, Intensity Of Pain, Duration Of Labor.

I. Introduction

The degree of public health in a country is assessed through several indicators. One indicator of health status is Maternal Mortality Rate (MMR). A mother's death occurs during pregnancy, childbirth, or 42 days after delivery with a cause that is directly or indirectly related to childbirth.

According to a World Health Organization (WHO) report of 2014, maternal mortality in Southeast Asian countries, Indonesia is 214 per 100,000 live births (WHO, 2014).

The cause of maternal mortality rate in Indonesia related to pregnancy and childbirth, especially bleeding is 28%, eclampsia 24%, infection 11%, long partus 5% and abortus 5% (MOH, 2010). Nationally, the Indonesian Demographic and Health Survey (SDKI) report in 2012 states that the maternal mortality rate is still quite high at 359 per 100,000 live births. (Ministry of Health RI, 2014)

Based on the data of Health Profile of South Kalimantan Province in 2012, Maternal Mortality Rate (MMR) in 2011 was 120 per 100,000 live births in 2012 was 123 per 100,000

live births. This is due to various problems that can arise during pregnancy, childbirth, and childbirth. The highest number of deaths during maternity and the most common causes of complications in labor were bleeding (43%), eclampsia (13%), complications of abortion (11%), infection (10%) and long delivery (9%). (Health Office South Kalimantan, 2012).

Based on the data of Banjarmasin City Health Profile in 2010 maternal mortality rate as many as 14 mothers in 2011, maternal mortality rate as many as 12 mothers, 2012 maternal mortality rate as 14 mothers, 2013 maternal mortality rate as 17 mothers, 2014 maternal mortality rate as many as 14 mother, 2015 maternal mortality rate as many as 14 mothers (Health Office Banjarmasin, 2016).

The long partus is in the active phase > 6 hours, or ongoing labor > 12 hours of an unborn baby or if the cervix is on the right of the alert line in the active phase (Saifuddin, 2010).

The birth process is identical to the pain that will be experienced. Physiologically pain occurs when the muscles of the uterus contract as an effort to open the cervix and push the baby's head towards the pelvis (Bandiyah, 2009)

One effort to overcome the pain in labor and long partus is to use the method of deep back massage which is a form of pressing on the back of the mother with appropriate techniques and appropriate procedures can increase the release of endorphins that work to reduce pain and increase the work of oxytocin in helping myometrium contraction at the opening process (Maryunani, 2010).

Firdaus maternity clinic is a clinic that has applied several techniques, one of which is the method of deep back massage (Maternity Clinic Firdaus, 2017). Based on a preliminary survey conducted by researchers at Maternity Clinic Firdaus Banjarmasin by observation and interview to 2 primiparas mother, it is known that both mothers feel pain and experience opening of long cervix about 6-7 hour at phase I active phase so that mother experience fatigue and feel anxious will undergo the process of childbirth.

Based on the above problems, the researcher is interested to investigate more about the relationship of deep back massage method to the in-partu mother to the duration of labor

process when applied to the delivery mother in-parts phase I active phase.

II. Research Methods

The research method used in this research is Pre-Experimental method with 2 designs namely Intact-Group Comparison Design and One-Group Pretest-Posttest Design (Sugiyono, 2010)

The population in this study were 39 primiparous mothers and the sample of this study was as many as 10 mothers inpartu kala I active phase at Firdaus Maternity Clinic Banjarmasin which will be given treatment by using method of deep back massage

Sampling is done by Purposive Sampling based on a certain consideration made by the researcher himself (Notoatmodjo, 2010).

The type and source of data used in this study are to use primary and secondary data. Special data with univariate and bivariate analyses used two Paired sample T-test and Mann-Whitney test.

III. Research Results

Univariate analysis performed to determine the Frequency Distribution of Labor Pain Intensity In Mother In-partu Kala I Active Phase Before And After Getting Treatment Deep Back Massage Method.

Table 1 Intensity of Pain of Labor In Mother In-partu Kala I Active Phase Which Gained Deep Back Massage Method And Group That Did Not Get Deep Back Massage Method In Maternity Clinic Firdaus Banjarmasin Year 2017.

Source: Primary Data, 2017

Variable	Labor Duration						Total	
	Quick		Normal		Long		Σ	%
	N	%	N	%	N	%		
Not done	4	40	6	60	-	-	10	100
Done	10	100	-	-	-	-	10	100

Table 1 states that maternal mothers with conditions prior to the method of deep back massage experience severe pain with a pain scale ranging from 6-9 and maternal women with conditions after done deep back massage method experienced moderate pain with pain scale 3-6.

Long Frequency Distribution of Delivery Delivered Deep Back Massage Method In Mother Inpartur Kala I Active Phase

Tabel 2 Length of Delivery After Delivery Method Deep Back Massage In Mother In-partu Kala I Active Phase In Maternity Clinic Firdaus Banjarmasin Year 2017.

Variable	Labor Pain						Total	
	Mild		Medium		Hard		Σ	%
	N	%	N	%	N	%		
Before DBM	-	-	1	10	9	90	10	100
After DBM	1	10	9	10	-	-	10	100

Source: Primary Data, 2017

Based on table 2 it can be seen that as many as 10 mothers who did not get treatment of deep back massage method experienced the duration of labor from opening 4 to 10 which ranged from 5 to 6 hours while 10 maternity mothers who received treatment of deep back massage method ranged from 4 to 5, 5 hours.

Bivariate analysis is to find out whether there is influence of deep back massage method to pain and duration of labor on delivery mother

in-partu kala I active phase in Maternity Clinic
Firdaus Banjarmasin

Tabel 3 Effect of Deep Back Massage Method on Pain In Mother Inpartu Active Phase At Firdaus Maternity Clinic Banjarmasin in 2017

Source: Primary Data, 2017

Variable	Labor pain						Total		P
	Mild		Medium		Hard		Σ	%	
	N	%	N	%	N	%			
Before	-	-	1	10	9	9	10	10	0,000
DBM						0	0		
After DBM	1	10	9	10	-	-	10	10	

Based on table 3 it can be seen that the maternity mother before getting treatment method of deep back massage experience severe pain with the scale of pain 6-9 and after get treatment method of deep back massage mother experience pain with scale 3-6 which including moderate pain. Mann-Whitney test results showed the value of $p = 0.000$ ($p < 0.05$) which means there is influence of deep back massage method on the pain

Table 4 Influence of Deep Back Massage Method Against Labor Delivery In Mother Inpartu Kala I Active Phase In Maternity Clinic Firdaus Banjarmasin in2017

Variable	Labor duration						Total		P
	Quick		Normal		Long		Σ	%	
	N	%	N	%	N	%			
Not done	4	40	6	60	-	-	10	100	0,00
Done	10	10	-	-	-	-	10	100	0

Table 4 identifies that there is a difference in labor duration in maternity women who received treatment of deep back massage method and who did not get treatment of deep back massage method. Mann-Whitney test results: $p = 0,000$ ($p < 0.05$) which means there is the influence of deep back massage method on the duration of labor in the inpartu mother when I active phase.

IV. Discussion

1. Intensity of Pain of Labor in Mother Inpartu Kala I Active Phase That Gets Deep Back Massage Method And Group That Did Not Get Deep Back Massage Method

Based on table 4.3 it can be seen that the maternity mother before getting treatment

method of deep back massage experiencing the intensity of severe pain with the scale of pain between 6-9 and scale of pain felt by maternal mother including into severe controlled pain and uncontrollable severe pain. And based on table 4.3 it can also be seen that the maternity mother after getting treatment method of deep back massage experienced moderate pain with pain scale 3-6. The pain experienced by this maternal mother varies depending on the sentiments of the pain felt by the maternity mother.

This is also in accordance with the theory proposed by Maryunani in 2010 which states that labor pain is due to lack of uterine muscle oxygen supply due to increasingly frequent contractions, stretching the uterine muscle/dilatation of the cervix (infiltration and dilation) causing natural pain to occur during labor. Several factors that can affect the pain in labor include previous experience, the perception of pain, and emotional tension due to anxiety. Several factors that can affect labor pain include emotional tension due to anxiety, labor preparation, and support during labor.

The pain felt by the mother during the method of deep back massage results will vary from the pain perceived every maternity mother.

Based on the theory of Maryunani in 2010 said that the pain of labor can be minimized by using the method of deep back massage. The deep back massage method is able to stimulate the body to release endorphins compound which is a natural pain reliever and create a comfortable feeling so that the respondent's emotions can be well controlled.

1. Some things that can cause changes in pain after being given deep back massage method is precisely in the method of deep back massage, the inability of respondents in controlling the emotions that cause muscle tension so that lack of oxygen and cause long pain

Delivery After Delivery Method Deep Back Massage In Mother Inpartu Kala I Active Phase

Based on table 4.4 it can be seen that the maternal mother as many as 10 people who get treatment of deep back massage method

experienced a fast delivery (<6 hours) and from 10 people who did not do deep back massage method experienced a normal (6 hours) and 4 others experienced rapid labor (<6 hours).

The results of this study are in line with Hidayat's theory in 2010 which says that when I active phase lasted for 6 hours. Long-term active phase can be accelerated, one of them through deep back massage method because the deep back massage method can improve the release of endorphin, reduce pain and increase oxytocin work in helping the myometrium contraction in the process of opening. Sumarah in 2009 said that there are 5 main factors that determine labor is power (power), passage (passage), fetus (passenger), helper and psychology of the mother

Pengaruh Metode *Deep Back Massage* Terhadap Nyeri Pada Ibu Inpartu Kala I Fase Aktif

Based on table 4.5 it can be seen that the maternity mother before the method of deep back massage experienced severe pain with pain scale 6-9 and maternal mother performed the method of deep back massage experienced a decrease in pain to a 3-6 scale that includes

moderate pain. The result of the independent sample t-test shows the value of $p = 0.000$ ($p < 0.05$) which means there is the influence of deep back massage method to maternal pain.

This is supported by the theory put forward by Prasetyo in 2010 which states that there is a method that can reduce the pain at the time of birth is the method of deep back massage. The use of deep back massage method other than useful in addition to reducing labor pain is also a simple method, effective, and without side effects. Giving deep back massage will cause a decrease in muscle tension and relaxation, including the abdominal muscles that can reduce friction between the uterus and the abdominal wall. Relaxation eliminates stress as well as fear & concerns leading up to birth that can cause tension, pain and labor pains that will help the mother control uterine contractions (Brown, 2007)

Based on the results of research conducted on maternal mood changes occur after the mother get treatment method of deep back massage. Maternity changes from severe pain to moderate pain. This is in accordance with

research in the journal of health sciences in August 2016 conducted by Maita who said that there is the influence of deep back massage method to decrease the scale of pain. The results are also in accordance with research conducted by Ngugiarti in 2013 which shows that there is the influence of deep back massage to labor pain during the stage I active phase.

Influence Deep Back Massage Method Against Labor Delivery In Mother Inpartu Kala I Active Phase

Based on Mann-Whitney test result as shown in Table 4.6 shows the result: $p = 0,000$ ($p < 0,05$) which means there is the influence of deep back massage method on the duration of delivery in maternity mother.

Based on the theory proposed by Hidayat in 2010 which says that the time period I active phase for 6 hours, but in the group of mothers who get deep back massage method long labor faster (< 6 jam). Deep back massage method will cause decreased muscle tension and relaxation, including abdominal muscles, so as to reduce friction between the uterus and the abdominal wall. This can increase uterine contractions with

the release of oxytocin and help decrease the fetus more quickly. Relaxation conditions experienced by the mother with a deep back massage will improve the circulation of the genitalia area and improve cervical elasticity so as to speed up the opening of the cervix.

This is in accordance with research in obstetrics journal in 2012 conducted by Indah who said that there is the influence of deep back massage method to the opening speed. These results are also in accordance with research conducted by Triya in 2014 which shows that there is the influence of deep back massage on the duration of labor stage I active phase.

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