



Anuloma Viloma in Reducing Labor Pain First Stage

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Abstract - Efforts to apply maternal care for mothers include supporting mothers who will be giving birth by guiding mothers in relaxation techniques, one of which is breathing technique. At present there are still many problems with labor wherein women experience fears about the obvious or the unclear, tension and hyperventilation caused by the mother breathing deeply and quickly, so that the pain during contractions increases. According to several studies of mothers in the first stage, they experienced more pain in the waist and back, so the purpose of this study was to determine the effectiveness of anuloma viloma in reducing pain in the first stage of labor. This study was a quasi experiment nonequivalent control group. The dependent variable in this study was first stage labor pain and the independent variable was the viloma anuloma technique. The number of samples in this study were 28 people. Statistical tests using the two-sample T-test, the dependent sample t-test, then multivariate analysis, namely linear regression. Independent t-test results show that pregnant women who are older than 35 years slower 0.44 experience labor pain compared to pregnant women who are less than or equal to 35 years old. Statistical test results obtained that there is no relationship between maternal age during pregnancy and experiencing labor pain. This shows that there is no significant difference between labor pain in high-risk pregnant women and low-risk pregnant women (p value = 0.858).

Keywords - Anuloma Viloma, Labor Pain, First Stage

I. INTRODUCTION

One of the problems faced by the Indonesian people, especially in the field of health and preparation of the future generations of the Indonesian nation is the high morbidity and mortality rates for mothers and children. The government has launched the Making Pregnancy Safer (MPS) program by emphasizing the provision of quality and cost-effective maternal and neonatal services, one of which is the delivery of assistance by health workers [1].

Labor is a complex interplay of psychological and physiological drives in women. The purpose of labor is to maintain survival and provide a high degree of health for mothers and their babies through integrated and complete efforts, but with minimal intervention so that the principle of safety and quality of service can be maintained [2].

Childbirth care is care that aims to provide adequate services during the delivery process in an effort to achieve clean and safe delivery assistance by paying attention to aspects of caring for the mother. Efforts to implement mother's caring care include

supporting mothers by guiding mothers in relaxation techniques, one of which is breathing [3].

According to [4]. labor problems are fears about the obvious or the unclear, tension and hyperventilation that can be caused by the mother breathing deeply and quickly, pain during contractions. The [5]. states that the factors that cause labor pain are uterine contractions, fear and anxiety, stretch of the birth canal including the waist and back.

The [6]. study of 30 female patients who experienced chronic back pain and low back pain in the age group 18-45 years who were given pranayama therapy for 8 weeks stated that there was a significant decrease in back pain and low back pain and could also improve quality significant life both physically, psychologically, socially, and environmentally.

The Research [7]. of 60 women who experience body pain and the quality of life of women with multiple sclerosis, a case group doing exercises to reduce pain with yoga (pranayama, hatha, king of yoga). Over a 3-month period of 90 minutes and a control group without any intervention. After doing yoga therapy in the case group showed that there was a significant decrease in pain and an increase in quality of life compared to the control group. The results showed that yoga techniques can reduce body pain and improve the quality of life of patients with multiple sclerosis.

According to [8]. pranayama is one of the most important parts of traditional yoga practice. Different pranayama techniques will show different effects as well, slow breathing breathing techniques that provide a record of improvements in the vascular system and can be used to prevent and repair damage to the blood vessel system. There are some drawbacks to respiratory nostril results and the mechanism of pranayama variations. Therefore there is a need for research on pranayama to explore the effects of the underlying mechanism.

The practice of yoga always refers to the breath (pranayama). In yoga practice pregnant women are clearly guided when to inhale and when to exhale. Synchronization between movement and breathing does not only apply to exercise during pregnancy and to face labor, but is a necessity for any yoga practice. In addition slow and deep breathing taught in yoga has a calming effect that is needed by maternity mothers [9].

According to [4], the predisposing factors for pain in labor are weight gain, rapid posture changes, repeated stretching, multiple stretches, many children, pregnancy distance, and relaxin levels tall one. Pain arises during labor due to anxiety, fear due to having heard irresponsible information about childbirth, to avoid pain during labor should think calmly and positively in the easiest way that is by breathing (pranayama). Besides basic maternal needs, among others, can reduce pain with non-pharmacological techniques, namely relaxation and breathing techniques [4], [9]. Some research on techniques to reduce pain in the first stage of labor has been done, but research on "the effectiveness of aniloma villoma in reducing pain in the first stage of labor" has never been done.

II. METHOD

This research is an experimental research that examines the relationship between variables that are focused on the effect of changes that one variable has on another variable. [10] The design of this study is a quasi experiment nonequivalent control group design that is the experimental group and the control group are formed in such a way that there is no opportunity for differences between the variables to influence the results. The dependent variable in this study was first stage labor pain and the independent variable was the villoma anuloma technique. Observation was carried out twice, namely before the experiment (O1) is called the pretest and after the experiment (O2) is called the posttest.

The study population was all mothers in the first stage of latent phase in the Independent Practice Midwife Palembang. The sample in this study were all women in the first stage of latent phase in the Independent Practice Midwife amounting to 28 people. The sampling technique was non probability sampling by accidental sampling with inclusion criteria as follows: normal delivery mothers, birth mothers who had never had an aniloma viloma, latent phase Kala I, multigravida, birth mothers who had no disease accompanying in pregnancy and childbirth, willing to be a respondent.

The number of samples in this study based on the number of samples that met the inclusion criteria from October to November 2018 obtained as many as 28 people, with details of 14 people having aniloma viloma and 14 people not doing anuloma viloma.

This research was conducted in October until November 2018 at the Independent Practice Midwife (BPM) of the city of Palembang. This type of research data is primary data in the form of data about the characteristics and data of pain in maternity in accordance with the study inclusion criteria. As well as blood tests for prostaglandin examination and secondary data, namely data on the number of third trimester pregnant women who have estimated parturition between October and November 2018.

Systematic research that is taking care of research permission to the Independent Practice Midwife, looking for third trimester pregnant women recorded in the examination book of pregnant women, especially pregnant women whose delivery dates in October and November 2018 obtained a number of 34 respondents. Then drawn to determine the intervention group

and the control group, train aniloma viloma in TM III pregnant women who are the intervention group, collect research data and find obstacles that are trained mothers who are not willing to take blood, the husband of the respondent is not willing his wife is taken blood, there is BPM who are not willing to have blood drawn from their respondents.

Data analysis is univariate data performed on each variable and the results of research in general in this analysis only produces the distribution and percentage of each variable. In this research, the independent variable is aniloma viloma and the dependent variable is labor pain when I am. Bivariate analysis is performed on two variables that are suspected to have an influence to determine the effectiveness of the two variables. The data obtained were then analyzed to test the effectiveness of anuloma viloma in reducing labor pain in the first stage. The average labor pain before and after the treatment was processed and statistically tested withusing a two sample T test that is

Variable	Intervention group		Control group	
	n	%	n	%
Age				
High risk (>35 tahun)	1	7,1	1	7,1
Low risk (≤35 tahun)	13	92,9	13	92,9
Mean (range)	27,60 (20-37)		26,00 (21-36)	
Pendidikan				
SD	1	7,1	3	21,4
SMP	0	0	0	0,0
SMA	9	64,3	11	78,6
S1	3	21,4	0	0,0
S2	1	7,1	0	0,0
Job Status				
Housewife	9	64,3	10	71,4
Labor	2	14,3	1	7,1
Trade	1	7,1	1	7,1
General Employees	1	7,1	2	14,3
Civil servants	1	7,1	0	0,0
Parity				
Lots	0	0,0	1	7,1
Less	14	100,	13	92,9
Mean (range)	1,43 (0-2)		1,71 (1-3)	
Pregnancy				
Primigravida	2	0,0	0	0,0
Multigravida	12	100,	14	100,
Mean (range)	2,36 (1-3)		2,79 (2-4)	
Pregnancy Distance				
Far	13	100,	14	100,
Close	1	0	0	0
Mean (range)	4,00 (0-7)		4,43 (3-6)	
Weight getting before pregnant				
Mean (range)	61,40 (50-68)		61,80 (55-68)	
Weight Now				
Mean (range)	73,10 (67-82)		73,80 (68-80)	
Age of pregnancy				
Mean (range)	38,60 (38-39)		38,50 (38-39)	
Opening of the birth				
Mean (range)	2,10 (1-3)		2,00 (1-3)	
Total	10	100	10	100

dependent sample t-test.

III. RESULTS

Table 1. Responden Characteristics

Labor Pain Intensity Score	Pre-Test		Post-Test	
	Intervension	Control	Intervens ion	Control
Mean (range)	2,20 (2-4)	2,40 (2-4)	2 (2)	2,80 (2-4)

Can be seen that the intervention and control groups showed that most of the respondents in the low risk group were less than or equal to 35 years old, more than 50% of respondents had a high school education, more than 50% were housewives, more than 80% had children less than or equal to 2 children, 100% of pregnancies are multigravida, 100% have a wide range with previous pregnancies, the average weight before pregnancy is 61 kg and the average weight. Body now 73 kg means up 12 kg of body weight before pregnancy.

Table 2. Average of Labor Pain Intensity

Table 2 shows that the average labor pain score in the intervention group respondents decreased from 2.20 to 2 after the post-test.

Table 3. Different of Mean in Respondent Labor Pain

Labor Pain Score	Mea n	SD	SE	pvalue	n
Intervension Group					
Pre Test	2,20	0,632	0,200	0,343	10
Post Test	2,00	0,000	0,000		
Control Group					
Pre Test	2,40	0,843	0,267	0,168	10
Post Test	2,80	1,033	0,327		

Table 3 uses paired t-test shows that in the two groups that were given intervention and the control group there was no significant difference where the pvalue > 0.05

Table 4. Distribution of Mean of Respondent Labor Pain Based on Respondent Groups

Labor Pain Score	Mean	SD	SE	pvalue	n
Pre-Test					
Case (Intervension)	2,20	0,632	0,200	0,333	20
Control	2,40	0,843	0,267		
Post Test					
Case (Intervension)	2,00	0,000	0,000	0,327	20
Control	2,80	1,033	0,327		

Table 4 is known that to know the average change in the value of labor pain scores according to the group of respondents ie the case group (intervention) and the control group there is no significant difference in the average value of labor pain scores where pvalue > 0.05

Table 5. Distribution of Average Science of Respondent Labor Pain Based on Respondent Characteristics

Labor Pain Score	Mean	SD	SE	pvalue	N
Age					
High Risk (>35 tahun)	2,00	0,000	0,000	0,858	20
Low Risk (\leq 35 tahun)	2,44	0,856	0,202		
Education					
High	2,00	0,000	0,000	0,338	20
Low	2,73	1,009	0,304		
Profession					
Work	2,86	1,069	0,404	0,359	20
Does not Work	2,15	0,555	0,154		
Parity					
Lots	4,00	0,000	0,000	0,69	20
Less	2,32	0,749	0,172		

The results of bivariate analysis using the Independent t-test show that pregnant women who are older than 35 years slower 0.44 experience labor pain compared to pregnant women who are less than or equal to 35 years old. Statistical test results obtained that there is no relationship between maternal age during pregnancy and experiencing labor pain. This shows that there is no significant difference between labor pain in high-risk pregnant women and low-risk pregnant women (p value = 0.858). The results of the analysis show that pregnant women with high education are slower by 0.73 experiencing labor pain compared to pregnant women with low education. Statistical test results obtained that there is no relationship between maternal education during pregnancy with labor pain. This shows that there is no significant difference between labor pain in pregnant women with high education and pregnant women with low education (pvalue = 0.338).

The analysis shows that pregnant women who work faster 0.71 experience labor pain compared to pregnant women who do not work. The results of statistical tests found that there is no relationship between maternal work during pregnancy with labor pain. This shows that there is no significant difference between labor pain in pregnant women who work and pregnant women who do not work (p value = 0.359). The results of the analysis show that pregnant women who have many children 1.68 more quickly experience labor pain compared to pregnant women who have fewer children. Statistical test results obtained that there is no relationship between the number of children with labor pain. This shows that there is no significant difference between labor pain in pregnant women who have many children and pregnant women who have few children (p value = 0.690).

IV. DISCUSSION

The results of the study stated that the average labor pain score in the intervention group respondents decreased from 2.20 to 2 after the post-test. Based on the results of the analysis note that the average labor pain score in the control group respondents increased from 2.40 to 2.80 after the post-test. According to [2], childbirth is a complicated interplay between psychological and physiological drives in women. The main physiological strength during labor is uterine contractions. Uterine contractions in labor are unique due to physiological muscle contractions that cause pain in the body. During pregnancy there is a balance between the levels of progesterone and estrogen in the blood, but at the end of pregnancy or 1-2 weeks before parturition there is a decrease in progesterone so that it arises which can cause labor pain [12]. This study is in line with the study of Attanayake (2010) states that the therapeutic effect is assessed subjectively and objectively. Specific scores taken for the yoga group (asanas and pranayama included in the Anuloma Viloma) and the control group were analyzed individually before and after treatment and values were compared using standard statistical protocols. Yoga interventions revealed 79% of help in subjective and objective parameters (that is, 7 of the 14 parameters showed a result of P < 0.01 which was very statistically significant, whereas 4 showed a significant result of P < 0.05). The comparative effect of the yoga group and the control group shows a 79% reduction in subjective and objective parameters. The cause of back pain is understood to be multifactorial. The very successful

management of multifactorial disease depends on a multi-focus treatment approach. Because yoga is a holistic method, yoga is complemented by a multi-target approach [11].

Based on the results of the study found that in the intervention group there was no difference in the average value of labor pain scores between the Pre-Test and Post-Test was 0.20 with a standard deviation of 0.632. The statistical test results obtained a value of 0.343, it can be concluded that there is no significant difference between the scores of labor pain scores of pregnant women before and after the intervention of Anuloma Viloma Respiration. This study is not in line with Marwa's research (2017) which states that there is an effect of physical exercise in the form of yoga which includes anuloma viloma on the scale of labor pain in the first stage. According to [5]. women or expectant mothers will feel pain that arises slowly. This pain will come and go, then it will feel more often and reach a climax when labor is almost happening. Pain that occurs can affect the mother's condition in the form of fatigue, fear, worry and stress. Stress can cause weakening of the uterine contractions and result in prolonged labor.

Women who are in a state of fear and do not know what is happening to them and are not prepared with relaxation and breathing techniques to overcome uterine contractions will cry and move uncontrollably in bed just because of mild contractions. On the other hand, women who have been prepared for childbirth will not show loss of control or cry even in severe contractions [2].

According to [13]. with breathing can help mothers get peace because of adequate breathing can increase the flow of oxygen, nitrogen and spinal fluid to the brain. Thus the fetal brain development will develop rapidly. Breathing exercises are done by breathing seven times, then holding it, and exhaled on the count of three. In yoga practice including anuloma viloma pregnant women are clearly guided when to breathe and when to exhale. Synchronization between motion and breath does not only apply to exercise during pregnancy, but is a necessity for every yoga practice. Besides slow and deep breathing taught in yoga has a calming effect that is needed by pregnant women and mothers who want to give birth [9]. The benefits of anuloma viloma technique are optimizing the function of both sides of the brain; means the creativity and logic sides are balanced which is useful for calming the mind and nervous system [14]. Breathing techniques with awareness that make breathing slower and smoother. By way of exhaling a long breath and provide a pause between inhaling and exhaling that can help in controlling the mind and concentration [15].

V. CONCLUSION

After performing anuloma viloma, there was a decrease in labor pain in the first stage. Statistically there was no difference in the pain in the first stage of labor in women before and after the viloma anuloma. This method can be used as an alternative that is non-pharmacological in reducing labor pain at the first stage. Suggestion there is furthermore research with another variable.

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