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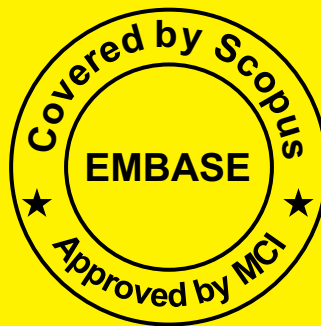
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Prenatal Yoga Program on Primigravida 3rd Trimester Reducing Complaints in the First Stage and Self-Efficacy in the Labor

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ABSTRACT

Data from the Sangurara Health Center in Palu city at 2017 the number of participants was primigravida 42 and multigravida 149. Primigravida pregnant women feel a concern about the labor that will be passed because this is the first labor. The method to relieve and help pregnant women in preparation for labor is to do the Yoga Prenatal Program. Analysis the effectiveness of prenatal yoga programs on primigravida trimester III in reducing complaints in the first stage of labor and self-efficacy. This study was an experimental study with two group design randomized controlled trial. The study was conducted from July to October 2018 in the Class of Pregnant Women at the Sangurara Health Center. Subject were taken based on consecutive samples, samples were 36 primigravida Trimester III: 18 controls, 18 interventions. The average value of complains of labor in the first stage of 4cm cervical opening was 6.55. The Mann-Whitney test results obtained a significance value of $p = 0.00$, at 8cm cervical opening obtained a mean number of 7.19 and value of $p=0.00$, self-efficacy in 4cm cervical opening obtained 110 self-efficacy rate with value of $p=0.00$, the average self-efficacy of labor opening at 8cm 107 and p value <0.05 . Prenatal Yoga Program is effective for primigravida trimester III in reducing first stage complaints and self-efficacy at the first stage of labor. Prenatal Yoga Program is standard in Antenatal Care.

Keywords: Prenatal Yoga, First Stage, Complaints, Self efficacy

Introduction

Labor is a natural process, but it is not without risk and is a burden for a woman¹. If both the mother and the fetus are in conditions that cause complications of labor, to immediately save both, labor should be carried out with abdominal actions is cesarean section². According to Yanti, Most mothers who are pregnant often experience fear and anxiety facing the labor process due to pain due to labor. This can cause mental and physical tension which will cause the muscles and joints to become stiff and unnatural³.

Primigravida women feel a concern about the labor that will be passed because this is the first labor which

means a new experience so that they feel anxious, approaching labor room⁴.

Psychological disorders that occur can adversely affect fetal development and lead to prolonged stress that can affect the development of the fetus including emotional disturbances after birth, if not handled properly even with good nutritional intake^{5,6}.

The goal of care during pregnancy is to prepare for a physiological delivery with the goal of the mother and the fetus to be born in a healthy condition⁷. The method to relieve and help pregnant women in childbirth preparation is to exercise which aims to maintain the health of the body and fetus to develop well and also make the mother's emotions remain stable⁸. Yoga carried out during prenatal will reduce discomfort during pregnancy and increase self-confidence and develop self-efficacy in the face of labor⁹.

The results of previous studies Pont and Longulo, that the 16 complaints that were most felt by respondents

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before prenatal yoga namely frequent urination of 31 (91.1%), while excretion that is not felt after yoga prenatal is 0% muscle spasm. Yoga pregnancy exercise is effective in reducing the abundance of third trimester pregnant women¹⁰.

Multipara had higher self-efficacy than those who gave birth for the first time. Several studies have found that yoga practices during pregnancy can facilitate self-efficacy during the first active phase and second stage of labor¹¹. Yoga during pregnancy can increase the mother's expectation in preparing the birth of a baby so that the mother becomes more skilled in relaxation and learns to be confident in facing childbirth¹².

During the Prenatal period primigravida pregnant women need preparation in the face of labor so that labor can take place well, mother and baby are healthy.

Method

This study was an experimental study with a randomized controlled trial, single blind, two group design^{13, 14}. The sample consisted of 36 primigravida Trimester III pregnant women consisting of 18 treatment groups and 18 control groups, taking samples with the consecutive sample technique. Prenatal Yoga is done in the treatment group for 8 times every week 2 times. When prenatal yoga is performed in one session 60-minute, divided by : Meditation, Warming up, Prenatal Yoga Movement (Restorative posture, standing posture, Pelvic Rocking) and relaxation. And then during labor interviews were conducted at the opening cervix of

4cm and 8cm in the intervention group and the control group during the relaxation phase. Univariate analysis use mean, frequency distribution. Bivariate analysis of the Wilcoxon test and Mann Whitney statistical test with a 95% confidence interval.

Results

1. Characteristics of respondents

Table 1: Respondents Characteristic Distribution

Characteristics	Control Group		Intervention Group	
	f	%	f	%
Age				
<20	2	11.1	3	16.7
20-34	10	55.6	13	72.2
>=35	6	33.3	2	11.1
Education				
Elementry	5	27.7	3	16.6
Middle Class (Senior and Junior High School)	13	72.2	15	83.3
Occupation				
Housewife	18	100.0	18	100.0

Table 1 explains that the majority of the age of the control group and the intervention group in the age period of healthy reproduction, the control and intervention group education is mostly middle education while the work of housewives.

2. First Stage Complaints

Table 2: Distribution of First Stage Complaints of 4cm Cervical Opening

Complaints	4cm Cervical Opening			
	Control group		Intervention group	
	f	%	f	%
Shaking Legs	13	72.2	3	16.6
creaking teeth	10	55.5	0	0.0
Buttocks cramps	8	44.4	0	0.0
Hiccup	3	16.6	0	0.0
Belch	3	16.6	0	0.0
Thirsty	14	77.7	15	83.3
Anorexia	4	22.2	1	5.5
Nausea	1	5.5	0	0.0
Breathless	4	22.2	1	5.5

Conted...

Pain	18	100.0	18	100.0
Restless	17	94.4	2	11.1
Afraid	14	77.8	1	5.5
Comfort Sense Disorders	18	100.0	3	16.6
Stomach ache goes backwards	18	100.0	16	88.8
Inner pelvic pain	11	61.1	4	22.2

Table 2 describes that the first stage of labor in the 4cm cervical opening in the control group of 16 labor complaints all complaints were felt. Complaints that were not felt in the intervention group.

Table 3: Distribution Complaints of First Stage in 8cm Cervical Opening

Complaints	8cm Cervical Opening			
	Group Control		Intervention Group	
	f	%	f	%
Shaking Legs	17	94.4	3	16.7
creaking teeth	3	16.7	0	0.0
Buttocks cramps	13	7.2	0	0.0
Hiccup	4	22.2	0	0.0
Belch	4	22.2	0	0.0
Thirsty	15	83.3	15	83.3
Anorexia	10	55.5	1	5.5
Nausea	10	55.5	0	0.0
Vomiting	1	5.5	0	0.0
out of breath	4	22.2	1	5.5
Pain	18	100.0	18	100.0
Restless	17	94.4	2	11.1
Afraid	14	77.7	1	5.5
Comfort Sense Disorders	18	100.0	3	16.6
Stomach ache goes tobackward	18	100.0	16	88.8
Inner Pelvic Pain	18	100.0	14	77.7

Table 3 shows that is a difference in complaints when the 8cm cervical opening in the intervention group and control.

Table 4: Distribution Efficacy of Labor at The First Stage of 4cm and 8cm Cervix Opening

Self-Efficacy	4 cm Opening				8 cm Opening			
	Control Group		Intervensi Group		Control Group		Intervensi Group	
	f	%	f	%	f	%	f	%
Low	11	61.1	2	11.1	15	83.3	2	11.1
High	7	38.9	16	88.9	3	16.7	16	88.9
Total	18	100.0	18	100.0	18	100.0	18	100.0

Table 4 explains that labor self-efficacy in the first 4cm cervical opening was different, in the control group the majority was low and the intervention group was mostly high. Based on table 5, At the opening of the cervix the 8 cm most control groups was low self-efficacy, the highest intervention group was high self-efficacy.

Table 5: Differences in Maternal Complaints of First Stage at 4cm and 8cm Cervical Opening

Complaints of First Stage	Mean	SD	p-value
4cm cervical opening Control-Intervention Group	6.55	3.73	0.00
8cm cervical opening Control-InterventionGroup	7.19	3.73	0.00

Base on Table 6, It can be concluded that Prenatal yoga program is effective in reducing complaints of labor when first stage in 4cm cervical opening and the statistical analysis that it can be concluded that the Prenatal Yoga Program is effective in reducing complaints of labor at the time of the 8cm cervical opening.

Table 6: Efficacy Differences first-Stage labor in 4cm cervical opening and 8cm cervical opening

Self-efficacy	Mean	SD	p-value
4cm cervical opening Control-Intervention Group	110	17.2	0.00
8cm cervical opening Control-Intervention Group	107	17.6	0.00

The results of the statistical test in table 6 it can be conclude that The Prenatal Yoga Program is effective in first-stage self-efficacy of 4cm cervical opening. And self-efficacy at the opening cervical of the first 8cm were significant differences between the control group and the intervention group. Prenatal yoga is effective in labor self-efficacy.

Discussion

1. Effectiveness of Prenatal Yoga Program on Primigravida Trimester III in Reducing Complaints in the FirstStage Labor:

Age can determine the physical readiness of primigravida women facing labor. In the opinion of Rochjati the young or old primigravida is one of the risk factors that can cause harm and the possibility of complications during labor and thus require preparation in the prenatal period¹⁵.

Research Rafika that more pregnant women with low education, underlie respondents not yet aware of prenatal yoga because previously they were not exposed to information given health services, especially prenatal classes. Respondents who work outside the home are the most housewife.

This is a burden of increasing physical complaints because of the many burdens of work done at home, while the condition of his body is getting heavier with increasing gestational age and body position (mechanical body) of pregnant women when working improperly¹⁶.

The results of this study are consistent with the research of Chuntharapat et. al., yoga can improve comfort during labor. The duration of the first stage of labor becomes shorter than the total time period I¹⁷. Research Thakur, Sharmaeena and Masand, regular yoga during pregnancy can help pregnant women to be healthy during pregnancy and prepare for labor, avoid improper posture during pregnancy. The technique of breathing and meditation can make a pregnant woman healthy and relaxed to prepare her mentally in facing labor¹⁸.

The results of a review from Stillman, yoga are comprehensive, holistic and have long been used to reduce stress, pain, and negative results from high-risk pregnancies¹⁹. Another study conducted by Beddoe, that every pregnant woman is recommended to start pregnancy in the second trimester to do yoga and is significant in decreasing physical pain. In the third trimester, there is a decreased stress and anxiety reaction after yoga³. Yoga improves the metabolism of the body and helps relaxation of the nervous system, regulates diaphragma contractions and relaxation that are used to improve blood circulation and are very helpful when waiting for the birth of a baby²⁰.

Prenatal Yoga very effective role to prepare in reducing labor pain, the location of muscles in the vaginal area, uterine cavity, rectum bearing heavy burden during pregnancy, contraction and relaxation that increases joint mobility, extends pelvic diameter, maintains circulation throughout the area and labor takes place, experiences pain decreases during labor, this is related to the pelvic floor muscles. In the intervention group, pain decreased compared to the control group. The control group feels pain during labor.

Hawrelak and Stephen, agrees with this point, if pregnant women practice 30 minutes of yoga, three times a week starting at 10-12 weeks of pregnancy, reducing pain during pregnancy, effective in facilitating comfort during labor and

after childbirth. The duration of labor is shorter²¹. Yoga reduces labor pain and reduces the need for analgesia²². Labor pain is felt if pregnant women are afraid and inadequate labor preparation²³.

2. Effectiveness of Prenatal Yoga Programs on Third Trimester Primigravida Self-Efficacy:

Age greatly affects women in facing pregnancy and childbirth both physically and psychologically. According to Sriwenda and Yulinda, women <20 years old are not psychologically prepared to face pregnancy or childbirth. Labor readiness is influenced by 3 factors, namely physical, mental, economic readiness²⁴.

According to the theory that at the opening of 4 contractions it starts every 10-20 minutes lasting 15-20 seconds with light intensity²⁵. Uterine contractions in labor are unique, physiological muscle contractions that cause pain in the body. Contractions are under the influence of intrinsic nerves so that women do not have physiological control over the frequency and duration of contractions²⁶.

Chuntharapat, et. al., research that yoga during pregnancy can facilitate self-efficacy during labor when active phase and second stage of labor. Yoga during pregnancy can increase the mother's expectation in preparing the birth of a baby so that the mother becomes more skilled in relaxation and learns confidence in facing labor¹². Self-efficacy can also increase trust or the ability to go through labor properly. This is an important factor that influences the motivation of women to give birth normally.

Mothers have good efficacy shown by their ability to adapt to labor pain, appear calm, be able to control themselves, are able to follow the advice of labor helper with their own strength, regulates breathing as long as there are *mules* (contractions) and can divert attention.

The results of this study are in accordance with Sindhu that practicing yoga during pregnancy is a useful solution as a self-help medium that will reduce discomfort during pregnancy, assist the labor process and even prepare mentally for the early postpartum period and when raising a child²⁷. According to the Sun et. al., yoga programs can reduce discomfort during pregnancy and increase trust in labor⁹.

Conclusion and Advice

Prenatal Yoga programs are effective against Primigravida in reducing complaints of labor in the first stage and Prenatal Yoga Program are effective for Self-efficacy in labor at the first stage.

Suggestion

The Prenatal Yoga Program is the standard for Antenatal care services, The midwife responsible for Prenatal class services activates the Prenatal Yoga Program. Promotion and education of Prenatal Yoga Programs independently at home. Need to do further research on the effectiveness of Yoga on fetal growth and development.

Conflict of Interest: All of the authors contributed to writing this paper and declare no conflict of interest.

Ethical Clearance: Ethical Clearance obtained from the university committee and respondent assignment (Ethical approval number: LB.01.01/KE/0006/III/2018).

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