

The effect of prenatal yoga on accelerated delivery of TM III pregnant women in the work area Sidomulyo Health Center, Bengkulu

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ABSTRACT

For the duration of the birthing method, not all mothers' births go easily due to the fact the opportunity of conditions outdoor ordinary limits (pathological) nevertheless exist, together with extended exertions and extended second stage. extended exertions are labor that lasts greater than 24 hours in primi and 18 hours in multi. extended exertions have an effect on the mother and fetus as well as the excessive rate of segment cesarean transport. extended hard work takes place due to the fact the primary and second degrees close longer, so there may be a prolonged lively section which can be used for prolonged labor. The intention of this research is: To discover the impact of prenatal yoga at the acceleration of labor of pregnant women inside the 1/3 trimester within the paintings place of the Sidomulyo medical institution, Bengkulu metropolis in 2024. technique: Quantitative studies with a quasi -experimental research design approach with a manage organization method. The study population was TM III primigravida pregnant girls who had been anticipated to give beginning in February 2024, a pattern of 32 TM III pregnant girls who did prenatal yoga, general sampling approach. data analysis turned into achieved the usage of statistical checks the usage of the independent t check. research results: The common (suggest) acceleration of the second degree of exertion in primigravida moms who took part in prenatal yoga turned into 29.95 minutes. The common (imply) acceleration of the second level of exertions in primigravida moms who did not participate in prenatal yoga was 55.72 minutes. conclusion: there is a power of prenatal yoga at the acceleration of hard work for TM III pregnant women (p-value = 0.000). TM III pregnant ladies can perform prenatal yoga as an opportunity training for childbirth, as it enables intellectual readiness, enables cognizance of the thoughts, provides calm and comfort with a view to accelerate the second stage of exertion.

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INTRODUCTION

Labor is the spontaneous birth of a fetus in the posterior presentation of the head, the product of conception is expelled as a result of regular, progressive, frequent and powerful contractions that do not seem to cooperate with each other in harmony to give birth to the baby. This expulsion process occurs in pregnancy (37 - 42 weeks)(Noftalina et al., 2021)(Indah et al., 2019).

The labor process is different for each person, but is greatly influenced by factors of strength (power), the mother's pelvis (passage), the fetus (passenger), the mother's psychological condition, and the assistant. Not all mothers experience a smooth labor process, because the possibility of conditions outside the normal limits (pathological) remains.(Diana & MAIL, 2019)(Syaiful et al., 2020)(Mutmainnah et al., 2021).

According to the Bengkulu Province Health Profile Data, the number of mothers giving birth in Bengkulu Province from January to December 2022 reached 6,553 people. Of that number, 1,740 mothers experienced difficulties in the delivery process. The causes include incorrect pushing techniques for 522 people (30%), inefficient contractions for 209 people (12%), large fetuses for 139 people (8%), narrow pelvis for 87 people (5%), premature rupture of membranes for 348 people (20%), and prolonged labor for 435 people (25%). From these data, prolonged labor is the second cause of difficulties in the delivery process, which can cause emergencies for the mother and baby. In the mother, bleeding and shock can occur, while in the baby, fetal distress, asphyxia, and caput can occur (Bengkulu Province Health Profile Book, 2023).

Prolonged labor is labor that lasts more than 24 hours in primipara and 18 hours in multipara. Prolonged labor has an impact on the mother and fetus and increases the number of deliveries by caesarean section. Prolonged labor occurs because the first and second stages last longer, so that the active phase is prolonged and can cause prolonged labor.(Pratamaningtyas & Oktaviana, 2019)(YN Putri, 2021)(NINGSIH et al., 2023). One of the largest contributors to the Maternal Mortality Rate is prolonged labor. Data on prolonged labor in Bengkulu Province increased in 2022, namely 13 people (25%). In 2021, there were 10 people (30%). Even though they have carried out pregnancy, childbirth, and postpartum checks according to the standards recommended by the Minister of Health, the Maternal Mortality Rate is still high (Bengkulu Provincial Health Office, 2023)

Some of the efforts made by the government to overcome complications or difficulties in pregnancy and childbirth in accordance with midwifery service standards are that mothers are advised to undergo pregnancy check-ups at least 6 times during pregnancy, with examinations by obstetricians twice, namely once in the first trimester and once in the third trimester, in accordance with the 10T standard (Regulation of the Minister of Health of the Republic of Indonesia, 2021).

In addition to pregnancy check-ups, efforts made to speed up, ease, and make the labor process smoother include hypnobirthing, pelvic rocking, aromatherapy, warm water compresses, and prenatal yoga.(Redaksi, n.d.)(Aryani, n.d.)(Zainal & Endah Suryani, 2021). However, these efforts have not been implemented optimally due to the lack of application of yoga in Independent Midwife Practice (PMB) (Ika Yulianti, 2022).

Primigravida mothers who give birth often face difficulties. Psychological stress in primigravida mothers has a significant physical impact during labor and can interfere with the progress of labor.(Isnaniar et al., 2020)(Wulan, 2024). Many of them choose to have a cesarean section of their own accord because they are not confident in giving birth (Nurhasanah, 2018).

According to research(RD Putri, 2019)showed that the average second stage birth rate in primigravida pregnant women who participated in yoga was 21.67 minutes, and in pregnant women who did not participate in yoga, the birth rate was 66.67 minutes. Doing yoga twice a week can speed up the process. Prenatal yoga is done by pregnant women at least once a week. Yoga can be done by pregnant women who do not have pregnancy complications such as anemia, asthma, and others. Pregnant women can practice yoga movements to prepare for childbirth with a duration of at least 30 minutes (Ika Yulianti, 2022).

The benefits of prenatal yoga include improving emotional well-being, strengthening the body, improving breathing and blood circulation, and training muscles related to labor. In addition, prenatal yoga prepares the mother physically and mentally for labor, speeding up the opening, and making the labor process easier. (Ika Yulianti, 2022).

Data in the Sidomulyo Health Center area from January to December 2022, the number of mothers giving birth was 209 people, some of whom experienced difficulties in the delivery process, the cause of which was due to incorrect pushing techniques 19 people (20%), inefficient contractions 29 people (30%), large fetuses 9 people (10%), narrow pelvis 4 people (5%), premature rupture of membranes 9 people (10%), and prolonged labor 25 people (25%). Services at the Sidomulyo Health Center, especially maternal and child services, are directed towards 14T services, but have not implemented pregnancy exercises and prenatal yoga because there are no trained human resources (HR) (Primary Data 2022).

Based on the background above, the researcher is interested in conducting a study entitled "The Effect of Prenatal Yoga on the Acceleration of Labor in Third Trimester Pregnant Women in the Sidomulyo Health Center Work Area, Bengkulu City".

RESEARCH METHOD

This study is a type of quantitative research with a quasi-experimental design using a two control group post-test design approach. Parallel design is used to compare two independent groups, namely the control group and the intervention group. In this study there are two groups of respondents, namely the experimental group and the control group. (Notoatmodjo, 2022).

RESULTS AND DISCUSSIONS

Table 1. Distribution of Respondent Characteristics in the prenatal yoga group and control group in the working area of the Sidomulyo Health Center, Bengkulu City in 2024

Characteristics	Yoga >12x	Yoga < 12x
Age		
18 - 25 years	16	7
26 - 33 years	5	4
Total	21	11
Work		
Housewife	17	4
Working mother	4	7
Total	21	11
IMT		
Good	19	4
Obesity	2	7
Total	21	11
Pelvic Circle		
Good	20	9
Small	1	2
Total	21	11
Estimated Body Weight		
Normal	19	4
Big Baby	2	7
Total	21	11

Based on table 1, it is known that of the respondents who participated in prenatal yoga more than 12 times, there were 21 people, consisting of 16 people aged 18–25 years and 5 people aged 26–33 years. Of these, 17 people were housewives and 4 were working mothers. As many as 19 people had a normal body mass index, while 2 people were obese. As many as 20 people had a good pelvic circumference and 1 person had a small pelvic circumference. In addition, 19 people

had normal fetal weight and 2 people had large babies. Meanwhile, of the 11 respondents who did not participate in prenatal yoga less than 12 times, there were 7 people aged 18-25 years and 4 people aged 26-30 years. Of this number, 4 people were housewives and 7 were working mothers. As many as 4 people had a normal body mass index, while 7 people were obese. As many as 9 people had a good pelvic circumference and 2 people had a small pelvic circumference. Finally, 4 people had normal fetal weight and 7 people had large babies.

Based on Table 2, it is known that the number of pregnant women in Trimester III is 32 people. Of that number, 21 people did prenatal yoga more than 12 times, while 11 people did prenatal yoga less than 12 times.

Table 2. Distribution to find out pregnant women in the third trimester who are undergoing prenatal care yoga in the working area of Sidomulyo Health Center, Bengkulu City in 2024

		Prenatal Yoga			
		Frequency	Percent	Valid Percent	Cumulative Percent
Yoga	Yes	21	65.6	65.6	65.6
	No	11	34.4	34.4	100.0
	Total	32	100.0	100.0	

Table 3. Shows the average difference in acceleration of the second stage of labor in pregnant women in the third trimester who did prenatal yoga in the working area of the Sidomulyo Health Center, Bengkulu City in 2024

Agreement of Time II	N	Min	Max	Mean	Mean Difference	Std Dev	P Value
Yoga>12x	21	10	40	29.95	25.77	13.05	.000
Yoga<12x	11	25	90	55.72		22.69	.004
Total	32						

Based on Table 3, the t-test results show a p-value of 0.000 <alpha (0.05), meaning that H0 is rejected and Ha is accepted. The average duration of the second stage in mothers who do prenatal yoga is 29.95 minutes, while in mothers who do not do yoga it is 55.72 minutes, with an average difference of 25.77 minutes. Therefore, it can be concluded that there is a significant effect in the acceleration of the second stage in mothers who do prenatal yoga. Of the 21 pregnant women in the third trimester who did prenatal yoga more than 12 times, there were 18 mothers who experienced accelerated labor and 3 mothers who did not. Of the 3 mothers who did not experience accelerated labor, 2 mothers were obese and 1 mother had a small pelvic circumference. Of the 11 pregnant women in the third trimester who did prenatal yoga less than 12 times, there were 2 mothers who experienced accelerated labor and 9 mothers who did not. Of the 9 mothers who did not experience accelerated labor, 7 mothers were obese and 2 mothers had a small pelvic circumference. Meanwhile, 2 mothers who experienced accelerated labor from a young maternal age, had a normal body mass index, normal pelvic circumference, and normal estimated fetal weight.

Discussion

To Find Out Pregnant Women in TM III Who Undergo Prenatal Yoga in the Sidomulyo Health Center Work Area in 2024

Based on table 2 of the research results, there were 32 pregnant women in TM III. Of these, 21 people did prenatal yoga more than 12 times, while 11 people did prenatal yoga less than 12 times. Of the 21 pregnant women in TM III who did prenatal yoga more than 12 times, the majority of respondents were aged 18-25 years (16 people), followed by those aged 26-33 years (3 people). A total of 17 people were housewives and 4 people worked. In terms of body mass index, 19 people had a normal index and 2 people were obese. A total of 20 people had good pelvic circumference,

while 1 person had a small pelvic circumference. There were 19 people with normal fetal weight and 2 people with large babies.

Meanwhile, of those who did not do yoga more than 12 times, there were 7 people in the age range of 18-25 years and 4 people in the age range of 26-30 years. There were 4 housewives and 7 people who worked. In terms of body mass index, 4 people had a normal index and 7 people were obese. A total of 9 people had good pelvic circumference, while 2 people had small pelvic circumference. There were 4 people with normal fetal weight and 7 people with large babies.

Not following yoga >12x aged 18-25 years as many as 7 people, aged 26-30 years as many as 4 people, housewives as many as 4 people, working as many as 7 people, mothers with normal body mass index as many as 4 people, mothers with obesity as many as 7 people, mothers with good pelvic circumference as many as 9 people, mothers with small pelvic circumference as many as 2 people, mothers with normal fetal weight as many as 4 people, mothers with large babies as many as 7 people.

Knowing the Difference in Acceleration of Labor of Pregnant Women in TM III Who Undergo Prenatal Yoga in the Work Area of Sidomulyo Health Center, Bengkulu City in 2024

Based on the results of the independent t-test, the p-value is $0.000 < \alpha (0.05)$, which means that the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted. The duration of the second stage in pregnant women in the third trimester who do prenatal yoga more than 12 times has an average duration of 29.95 minutes, while in mothers who do yoga less than 12 times have an average duration of 55.72 minutes. Thus, it can be concluded that there is a significant influence in the acceleration of the second stage in mothers who do prenatal yoga.

Of the 21 pregnant women in TM III who did prenatal yoga more than 12 times, there was an acceleration of labor in 18 people, while 3 people did not experience an acceleration of labor. Of the 2 people who did not experience an acceleration of labor, it was known that 2 of them were obese and had a large estimated fetal weight, and 1 person had a small pelvic circumference.

It is known that 11 TM III pregnant women who did prenatal yoga <12 times experienced accelerated labor, 2 people did not experience accelerated labor, 9 people did not experience accelerated labor, of the 9 mothers who did not experience accelerated labor, 7 pregnant women were obese and 2 pregnant women with circumference her pelvis is small.

Several factors can affect the smoothness of the labor process, such as passage (mother's pelvis), power (strength), passenger (pregnancy fruit), mother's psychology, and assistant (midwife) (Prawirohardjo, 2018). Prenatal yoga can affect the smoothness of the labor process such as increasing the mother's strength, preparing the mother's psychology for labor readiness. (Ika Yulianti, 2022).

Maternal obesity during pregnancy can affect the abnormal growth of the fetus. This can result in macrosomia, which is the birth of a baby weighing more than 4000 grams, which may complicate the delivery process for obese mothers. Cephalopelvic Disproportion (CPD) is a condition in which the mother's pelvic circumference is not appropriate or less than normal, which can inhibit natural childbirth (Aspiani, 2017).

Estimated fetal weight is important in midwifery care, helping midwives determine the time of referral to avoid delays in treatment. Extreme low or high birth weight is associated with the risk of complications during and after labor. Knowledge of estimated fetal weight also allows birth attendants to better plan vaginal delivery or other procedures (Kusmiyati, 2008).

Based on the data on the characteristics of respondents, mothers who follow yoga are mostly of productive age, namely 18-25 years, because they have no experience, so their curiosity is high and mothers are very interested, easy to understand, and know information about prenatal yoga. Most mothers who follow yoga are housewives, so they are not very busy, and are very interested in doing prenatal yoga while filling their free time during TM III pregnancy.

There are several ways of preventive measures during pregnancy so that the mother and fetus are in healthy condition and later a normal delivery process occurs, namely morning walking,

cycling, aerobics, water gymnastics, dancing, and yoga. Pregnancy gymnastics has several exercise methods including yoga, pilates, kegel, hypnotherapy (Krisnadi. 2019).

Yoga is useful in training and mastering breathing techniques that play a crucial role during pregnancy and the labor process. The benefits of basic breathing exercises are to train tension, increase blood flow speed and meet the oxygen needs of the mother and her fetus. No less important benefits are strengthening and maintaining the elasticity of the abdominal wall muscles, ligaments, pelvic floor muscles and inner thigh muscles, using this the labor process can be mastered (Irmawati, 2014).

This study is also supported by research by Ratna Dwi Putri et al. (2019) which shows that the average acceleration of second stage labor in primigravida pregnant women who participate in yoga is 21.67 minutes, while the average acceleration of labor in pregnant women who do not participate in yoga is 66.67 minutes. Doing yoga twice a week can speed up the labor process.

CONCLUSION

Most of the 21 pregnant women who did prenatal yoga >12 times during the third trimester of pregnancy and 11 others did not do yoga or did yoga <12 times during the third trimester of pregnancy in the Sidomulyo Health Center Work Area, Bengkulu City. There was a difference in the acceleration of labor in primigravida mothers who did prenatal yoga, with an average acceleration of the second stage for 29.95 minutes, which was faster than mothers who did not do yoga, with an average duration of the second stage reaching 55.72 minutes.

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