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The Influence Of Pregnancy Exercise On Normal Delivery Of Primiparous Mothers In 2023

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ABSTRACT

Pregnancy is a natural process that occurs in that the changes that occur in women during normal pregnancy are physiological in nature. The aim is to determine the effect of pregnancy exercise on the smooth delivery process of primiparous mothers at the BPM Suci Rahmadani Clinic. This research is a cross sectional study using an observational approach. The results of the study showed that of the 50% who participated in pregnancy exercise, 35.4% had normal deliveries, 14.6% had abnormal births. Of the 50% of mothers who did not participate in pregnancy exercise, 11.5% had normal deliveries and 38.5% had abnormal births. Based on the Odds Ratio (OR) value of 8.169, this means that mothers who do not exercise during pregnancy have a risk of abnormal labor of 8.169 times compared to mothers who exercise during pregnancy. It is recommended for mothers to take part in pregnancy exercise at least once a week so that the benefits of pregnancy exercise can be felt to the maximum. It is hoped that the Suci Rahmadani BPM Clinic will make pregnancy exercise one of the pregnancy care program policies, so that pregnant women can feel the benefits of the exercise. well.

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INTRODUCTION

Human pregnancy occurs during the 40 weeks between the time of last menstruation and birth (38 weeks from fertilization). The medical term for a pregnant woman is gravida, while the human inside is called an embryo (early weeks) and then a fetus (until birth). A woman who is pregnant for the first time is called a primigravida. A woman who has never been pregnant is known as a gravida. Pregnancy is a condition where a woman has a fetus that is growing in her body. Generally, the fetus grows in the womb. Pregnancy time in humans is around 40 weeks or 9 months. This time period is calculated from the start of the last menstrual period until delivery. Pregnancy is a reproductive process that requires special care so that it runs well. With the occurrence of pregnancy, women experience fundamental changes so that they can support the development and growth of the fetus in the womb (Manuaba, 2018).

Physical changes during pregnancy do not prevent pregnant women from exercising. Moreover, with pregnancy exercise, the health of pregnant women both physically and mentally can be maintained and what's more, pregnancy exercise helps pregnant women prepare for a smooth delivery. A pregnant mother can adapt to the changes that occur both physically and mentally, it is necessary to carry out antenatal care which aims to prepare for a physiological birth with the aim of the mother and child being born being healthy (Ministry of Health of the Republic of Indonesia, 1994). Supervision during pregnancy (antenatal) has been proven to have a very important position in efforts to improve the mental and physical health of the pregnancy in preparation for childbirth. The aim of pregnancy monitoring for mothers is to reduce and enforce early pregnancy complications, enforce and treat early maternal complications that can affect pregnancy, maintain and improve the mental and physical health of pregnant women, carrying out pregnancy surveillance can also reduce MMR (Maternal Mortality Rate) (Manuaba , 2018).

This can cause mental and physical tension which will result in unnatural stiffness in the muscles and joints. Among the predictors of health conditions in Indonesia, the maternal mortality rate can be said to be the most worrying. Maternal Mortality Rate (MMR) is 307 deaths per 100,000 live births in

the 2002 IDHS -2003 (Muslimin & Rahim, 2022). The maternal mortality rate has not decreased in the last 5 years. The Millennial Development Goals (MDG's) target for 2016 is 100 deaths per 100,000 live births (Indrayani & Choirunnisa, 2020)

According to the Ministry of Health (2018) the maternal mortality rate (MMR) in West Java is currently still high. According to Ganggu (2018) Practicing pregnancy exercises regularly will reduce fatigue. The number of pregnant women in Indonesia is 5,324,562, while according to the Ministry of Health in 2018 in West Java it was 971,458 pregnant women. As for March 16 2019, there were 629 pregnant women consisting of 249 pregnant women in the first trimester, 248 pregnant women in the second trimester, and 132 third trimester pregnant women.

A health problem that is still a concern in every country is the high maternal mortality rate. The Ministry of Health of the Republic of Indonesia (2019) stated that the maternal mortality rate in 2018/2019 was 305 per 1000 live births. The direct causes of maternal death are 28% due to bleeding, eclampsia 24%, puerperium complications 8%, abortion 5%, parturition eclampsia 24%, obstetric trauma 3%, others 11%. The maternal mortality rate in Medan was in 2019, MMR was 179 out of 302,555 live births or 59.16 per 100,000 live births. (Indonesian Ministry of Health, 2019; SUMUTProv Profile, 2020). According to data from the World Health Organization (WHO), it is estimated that around 15% of all pregnant women will develop complications related to their pregnancy and threaten their lives. In a study of 876 pregnant patients in New York who exercised, labor was easier among those who exercised regularly compared to those who exercised only a little or did not exercise at all and there was also a reduced risk of prolonged labor. According to Riskesdas 2018 data, pregnant women in South Sulawesi were around 187,141 people. The incidence of those who did not participate in pregnancy exercise was (95.1%) and in cases who participated in pregnancy exercise it was (1.9%). Based on 2018 Riskesdas data, the still high MMR is caused by several factors. The biggest cause of maternal death is bleeding, namely 30.3% and prolonged labor is the lowest cause, namely 1.8%, but it needs better treatment so that it does not occur during delivery (Ministry of Health of the Republic of Indonesia, 2018). According to Astuti, the percentage of discomfort that occurs in pregnant women is 20% swelling in the legs, 10% leg cramps, 60% shortness of breath, 20% headaches and 70% back pain. According to Miqueluitti et al, pregnant women who attended childbirth preparation classes at 30 weeks of gestation had a lower risk of urinary incontinence (treatment group 42.7%, control group 62.2%, RR 0.69; 95% CI 0.51-0.93). Gestational age 36 weeks urinary incontinence (Treatment group 41.2%, control group 68.4%, RR 0.6, 95% CI 0.45-0.81). In previous research conducted by Nurlaelah S (2020) at the Masitah Muara Jawa Clinic, East Kalimantan, it showed that as many as 46 people (63%) of pregnant women took part in pregnancy exercise activities, and as many as 48 people (65.8%) experienced a smooth delivery process. The results of the Chi-Square test obtained a p-value of 0.000 (<0.05), so it can be concluded that there is a significant relationship between the implementation of pregnancy exercises and the smoothness of the delivery process at the Masitah Muara Jawa Clinic in 2019.

Data from the South Sulawesi Provincial Health Service in 2018 showed that the number of pregnant women was around 187,141 people. Those who did not take part in pregnancy exercise were (95.1%) and in cases who took part in pregnancy exercise were (1.9%) (South Sulawesi Provincial Health Office Data, 2018). Data from the Bone Regency Health Service in 2018 obtained the number of mothers giving birth, namely 13,438 people (92.62%), then in 2019 there was a decrease, namely 13,123 people (92.97%), and in 2019, 2020 experienced an increase of 13,476 people (95.47%) (Data from the Bone District Health Office, 2020). UPT data from the Ajangale Community Health Center in 2018 showed that the number of mothers giving birth was 429 people (100.94%) and those who experienced prolonged labor were 6 people (1.40%), then in 2019 the number of women giving birth decreased, namely 365 people (93.11 %) and those who experienced prolonged labor were 12 people (3.28%, in 2020 the number of mothers giving birth again decreased, namely 358 people (91.33%) and those who experienced prolonged labor were 12 people (3.28%) (Data UPT Puskesmas Ajangale, 2020). Psychological problems experienced by mothers in labor when facing childbirth are anxiety (52%) and doubts about their ability to cope with pain (43%). Anxiety and fear experienced by mothers giving

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birth, especially primiparas, can prolong the duration of labor and increase the incidence of surgical delivery, namely delivery by caesarean section (OR 26.9 CI 95%) and vacuum extraction (OR 4.5 CI 95%). Mothers who have given birth and experience anxiety during childbirth are unpleasant moments in their lives (Hayati, 2018).

METHOD

Research design is essentially a strategy to achieve predetermined research objectives and acts as a guide or researcher throughout the research process (Nursalam, 2020). According to (Silaen, 2018) research design is a design regarding the entire process required in planning and implementing study.

This type of research is observational analytic with a cross sectional research design where the case group is compared with the control group, namely to determine the effect of pregnancy exercise on normal delivery at the CLINIC.

Formula: N
$n = 1 + N (d)^2$
Information :
n= sample size
N= population size
d= tolerable error rate (5%) N
$n = 1 + N (d)^2$
$125\ n = 1 + 125 (0.05)^2$
$125\ n = 1 + 125(0.0025)$
$125\ n = 1.3125$
n = 96 people

So, the sample in this study was 96 people who were divided into two parts, namely 48 mothers who took part in exercise which were referred to as cases and 48 mothers who did not take part in pregnancy exercise which were referred to as controls. Before the researcher carried out sampling, the researcher determined the sampling technique using accidental sampling, namely mothers who visited the BPM SUCI RAHMADANI CLINIC to check their pregnancy at the time of the research. D. Operational Definition

RESULTS AND DISCUSSION

Results

The Suci Rahmadani BPM Clinic is a private health service institution with a class C special clinic classification for mothers and children, established on November 21 2009. The Suci Rahmadani BPM Clinic has a land area of 2,050 m2 with a building area of 3,100 m2 with the aim of improving the health status of mothers and children. and reduce maternal and child mortality rates. Human Resources (HR) at the BPM Suci Rahmadani Clinic or health workers consist of 2 midwives with D-III Midwifery qualifications, analysis. The type of service at the BPM Suci Rahmadani Clinic consists of a delivery room service of 4 private birthing rooms complete with facility 4 Midwifery activities in 2013 with 537 types of normal birth activities, 2,082 caesarean sections. Perinatology activities in 2013 for newborns weighing ≥ 2500 grams were 2973, < 2500 grams were 130 babies.

Table 1. Frequency Distribution of Respondent Characteristics at the Suci Rahmadani BPM Clinic 2023

Age	Frequency (f)	Percentage (%)
<25	0	26
25-35	48	50
>35	23	24
Employment	**Frequency (f)**	**Percentage (%)**
Wiraswasta	23	24

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IRT	57	59,4
Private Officers	12	12,5
State Officer	4	4,2
Paritas	**Frequency (f)**	**Percentage (%)**
Primipara	62	64,6
Multipara	34	35,4
Amount	**96**	**100**

Based on table 1 above, it can be seen that the majority of respondents are 25-35 years old, 50%, the majority of mothers are housewives, 59.4%, and the majority of primiparas are 64.6%.

Table. 2. Frequency Distribution Based on Pregnancy Exercises at the BPM Suci Rahmadani Clinic 2023

Pregnant Gymnastics	Frequency (f)	Percentage (%)
Follow	48	50
No Follow	48	50
Amount	**96**	**100**

Based on table 2 above, it can be seen that the number of pregnant women who take part in pregnancy exercise is the same as the number of mothers who do not take part in pregnancy exercise, because this research is a case control study, the cases are mothers who take part in pregnancy exercise and the controls are mothers who do not. take part in pregnancy exercises.

Table 3 Frequency Distribution of Normal Delivery at BPM Suci Rahmadani Clinic 2023

Normal Delivery	Frequency (f)	Percentage (%)
Normal Delivery	45	45,9
Abnormal Delivery	51	54,1
Amount	**96**	**100**

Based on table 3 above, it can be seen that 45.9% of the 96 pregnant women gave birth through normal labor and 54.1% gave birth through abnormal labor.

Discussion

The results of the study showed that of the 50% who participated in pregnancy exercise, 35.4% had normal deliveries, 14.6% had abnormal births. Of the 50% of mothers who did not participate in pregnancy exercise, 11.5% had normal deliveries and 38.5% had abnormal births. Based on the Odds Ratio (OR) value of 8.169, this means that mothers who do not exercise during pregnancy have a risk of abnormal labor of 8.169 times compared to mothers who exercise during pregnancy. The results of this study are in accordance with the opinion of Maryunani (2014) that pregnancy exercise is an important method for maintaining or improving the physical balance of pregnant women and is an exercise therapy given to pregnant women with the aim of achieving a fast, easy and safe delivery.

The results of research by Aulia, Hendarmin (2010) found that mothers who did exercise had a normal birth process of 56.06%, while mothers who did not exercise had a normal birth process of 43.94%. According to Nirwana (2011) pregnancy exercise is a movement training therapy to prepare pregnant women physically and mentally for fast, safe and spontaneous delivery. If a pregnant woman has complaints during her pregnancy, before attending a pregnancy exercise session, it is best to consult with the doctor who is treating her. Pregnant women who take part in pregnancy exercises are expected to be able to give birth smoothly, to make the best use of their energy and abilities so that the birth runs normally and quickly.

Exercises done during pregnancy will help mothers deal with stress and anxiety. The essence of

pregnancy exercise itself is to practice breathing before giving birth. So that in the moments when the baby is born, the mother can relax and control the situation. Pregnancy exercise usually starts when the pregnancy enters the third trimester, which is around 28-30 weeks of pregnancy (MOH RI, 2009).

According to Jannah (2012), pregnancy exercise training given in hospitals and RBs in free time on a regular basis, if there are no very pathological conditions, will be able to lead pregnant women towards a physiological birth. Feelings of fear can cause physical tension, which can cause muscles and joints to become stiff so that walking is unnatural.

Pregnant women who take part in pregnancy exercise have a greater chance of normal delivery than abnormal delivery, this is influenced by mothers who take part in pregnancy exercise more often and understand about pregnancy exercise, this can be seen from the mother's answers via a questionnaire with the number of participants in pregnancy exercise in The majority take part in pregnancy exercise a week. The majority of mothers take part in exercise during the week 4-6 times as much as 22.9%. This is in accordance with the opinion of Jannah, (2012) who states that carrying out pregnancy exercises at least once a week, a maximum of 3 times a week in about 30-60 days, means there is a greater chance of having a normal birth. And based on the respondents' answers via a questionnaire, pregnant women who understand about pregnancy exercises the majority was 34.4%.

According to Notoadmojdo, (2018) before a person behaves in a new way, within that person a sequential process of positive thinking occurs which will lead the subject to start trying and finally a new behavior has been formed within him. Adopting behavior that is based on knowledge, awareness and a positive attitude towards the stimulus will form new behavior that can last a long time. According to Ayati, (2018), the lack of knowledge and also the lack of interest or desire of the pregnant mother makes her afraid to take part in pregnancy exercise. Apart from that, even though a pregnant woman is highly educated, there is also a mother who does not participate in pregnancy exercises. This is influenced by the mother's job. Busy work means highly educated pregnant women cannot participate in pregnancy exercises. which starts from awareness of the stimulus then there is a feeling of interest. After that, there is a mental consideration of the negative and positive impacts of the stimulus. Results: Pregnant women who work will definitely have a little difficulty dividing their time between working and participating in pregnancy exercises. So it is clear that there is a relationship between the level of education of pregnant women and participation in pregnancy exercise.

The results of statistical tests using the chi-square test show that the p value = 0.000 (p = <0.05) which shows that there is an influence of pregnancy exercise on normal childbirth at RSIA Stella Maris in 2015. The results of this research are in line with research by Aulia, Hendarmin (2020) The relationship between pregnancy exercise and the birth process showed that mothers who did pregnancy exercise had a normal birth of 56.06% while an abnormal birth was 34.85%. The statistical test results obtained a p value of 0.014, so it can be concluded that there is a significant relationship between pregnancy exercise and the second stage of labor, OR = 0.419 with a 95% Confident Interval (CI) between 0.208-0.846, so it can be concluded that pregnancy exercise is a protective factor. abnormal delivery. In other words, mothers who exercise during pregnancy have a risk of abnormal labor of only 0.419 times compared to mothers who do not exercise during pregnancy.

CONCLUSION

Respondents who took part in pregnancy exercises at the BPM Suci Rahmadani Clinic were able to make mothers give birth normally and abnormally. And mothers who do not participate in pregnancy exercises can also cause mothers to give birth normally and abnormally. The majority of births at the BPM Suci Rahmadani Clinic experience abnormal labor. There is an influence of pregnancy exercise on normal delivery at the BPM Suci Rahmadani Clinic 2023

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