

## DURATION OF SECOND STAGE OF LABOR AND BIRTH CANAL TEARS IN MOTHERS WHO DO PREGNANCY EXERCISES

Rani Marlida Nurbaeti<sup>1</sup>, Arih Diyaning Intisari<sup>2</sup>, Budi Aji<sup>3</sup>

Universitas Jendral Soedirman, Purwokerto, Indonesia <sup>1,2,3</sup>

Email: ranimarlida@gmail.com

### ABSTRACT

Childbirth is considered a frightening experience, even some women who get traumatized and did not dare to get pregnant again. Whereas many ways and the invention of the experts on behalf of the mothers in childbirth, including pregnancy exercise. The purpose of this study is to determine the relationship of the duration of the second stage of labor and birth canal laceration in women who are pregnant do gymnastics in BPM Ny. E Tasikmalaya in 2022. This type of research is kolerasional a study that examined two variables simultaneously by using cross sectional research that studied the pregnancy exercises of the correlation between the risk factors to the effects of the approach, observation or data collection at once. The population in this study were all women giving birth in BPM Ny. E city tasikmalaya in January-July. Sampling using total sampling technique in order to obtain a sample of 32 people. Retrieving data using questionnaires, then the data were analyzed using chi-square statistical test. The survey results revealed that the duration of labor relations kala There ll on women who undergo pregnancy exercise ( $p$  value = 0.001 at  $\alpha = 0.05$ ), no association rips the birth in women who are pregnant do gymnastics ( $p$  value = 0.000 at  $\alpha = 0, 05$ ). It is expected that all pregnant women, especially pregnant women who are in the scope of BPM Ny. E apply existing theories in this research that is routinely doing pregnancy exercise to prepare for childbirth.

**KEYWORDS** birth, birth canal laceration, pregnancy exercise



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## INTRODUCTION

According to the World Health Organization (WHO), in 2013 the Maternal Mortality Rate (MMR) in the world was 210 per live birth, and the Infant Mortality Rate (AKB) in the world in 2013 was 34 per 1,000 live births, the Infant Mortality Rate (AKB) in developing countries was 37 per 1,000 live births and the Infant Mortality Rate (AKB) in developed countries was 5 per 1000 live births (Sumiasih, 2018).

Normal childbirth should go smoothly and comfortably. The existence of excessive pain is more caused by the mother's tension and physicality. This pain, in fact, is just a myth that is recorded in the subconscious of the mother's soul (suggestion). Because in a simple society, this happens.

Many women experience painful labor. Therefore, it is not uncommon for childbirth to be considered a scary experience, in fact there are women who experience trauma and do not dare to get pregnant again. In fact, there are many ways and discoveries by experts to ease mothers in childbirth, including water birth, hypnobirthing and up to various movements to ease childbirth, one of which is pregnancy gymnastics. In addition, there are also many sports that are recommended for those who are pregnant, including walking, swimming, stationary bikes, and pregnancy exercises (Rohani, 2011).

One of the causes of the high Maternal Mortality Rate (MMR) and Infant Mortality Rate (AKB) in Indonesia and developing countries is due to the length of childbirth. There are 5 factors that cause the length of labor, namely power, passage, passanger, psychological response, and helper (Anggraeni, 2010).

In an effort to improve the health status of the Indonesian people, there are still major challenges in health development, namely the Maternal Mortality Rate (AKI). Citing data from the Indonesian Demographic and Health Survey (SDKI) in 2013, it shows that the Maternal Mortality Rate (MMR) is 359 per 100,000 live births whose direct causes are infection, eclampsia, bleeding and as many as 85% of maternity mothers experience birth canal tears, while the indirect causes are infected abortions and old partus. This means that in Indonesia, approximately 44 mothers are found to die every day.

The length of labor that occurs in the II period is the last phase of a labor that lasts too long so that it causes dehydration, infection, maternal fatigue as well as asphyxia and fetal death in the womb. Efforts made by pregnant women so that childbirth goes smoothly can be controlled by doing pregnancy exercises (Hendarmin & Hindun, 2003).

The Maternal Mortality Rate in West Java Province in 2013 was recorded as ranked the highest in the number of AKI, around 765 cases of maternal mortality occurred in West Java out of a total of 5,019 cases with the cause being eclampsia, bleeding infections and perineal tears occurred in almost 90% of all mothers giving birth while indirect causes such as heart disease, asthma and chronic infections. From this figure, West Java is a contributor to 50 percent of the number of maternal deaths (Septaningtia & Anjarwati, 2015).

The Maternal Mortality Rate (AKI) in Tasikmalaya City in 2013 was recorded as many as 16 people out of a total of 13,508 births, which were caused by direct causes, including severe *pre-eclampsia* 2 people, impending *eclampsia* 1

person, bleeding 5 people, *eclampsia* 2 people, old phase II 6 people, and perineal tears occurred 70% of all mothers who were born either primi or multi para while Indirect causes include heart disease 5 people, dengue susp 1 person, blood clots 1 person, kidney failure 1 person (Septaningtia & Anjarwati, 2015).

Pregnancy gymnastics is an exercise program for pregnant women to prepare the mother's physical condition by maintaining the condition of muscles and joints that are influential in the delivery process, as well as creating confidence in the mother's psyche in facing the childbirth process (Hartanti et al., 2024).

There was a significant relationship between pregnancy gymnastics and smooth normal childbirth in the working area of the Batu Aji Health Center, Batam City in 2013 where the P value was 0.001 (P value  $0.000 < 0.05$ ).

There was a significant difference between the length of time in the second period in the group of mothers who did pregnant exercises and those who did not. This proves that there is an influence of gymnastics pregnancy to the length of delivery time of phase II in primipara maternity mothers. The minimum value of the length of time in period II passed by the group of mothers who did pregnancy exercises was shorter (5 minutes) compared to the group of mothers who did not do pregnancy exercises (15 minutes) and this was influenced by the treatment of pregnancy exercises before observation (Ningsih et al., 2023).

Pregnancy exercises have benefits that are very influential on the delivery process, including: physiological (natural) childbirth with a healthy mother and baby, mental and physical preparation for pregnant women, good contractions, rhythmic and strong in the lower segment of the uterus, cervix, pelvic floor muscles, relaxation, health information (including) about pregnancy to the family. The general purpose of pregnancy gymnastics is that through regular pregnancy gymnastics exercises will be able to maintain the condition of the muscles and joints which will later play a role in the delivery mechanism, enhance physical and psychological health as well as confidence in yourself and helpers.

The purpose of pregnancy gymnastics is to strengthen and maintain the elasticity of the pelvic floor muscles, ligaments and tissues as well as fascia which play a role in the delivery mechanism, flex the joints related to the delivery process, the location of the fetus and reduce shortness of breath, master breathing techniques in childbirth. In simple terms, it can be described that pregnancy gymnastics has the following goals: (1) Train pregnant women to adapt better to their pregnancy. (2) Train pregnant women for childbirth (Notoatmodjo, 2022).

Based on the preliminary study carried out as seen from data from August-December 2021 which amounted to 13 primipara postpartum mothers who did pregnant gymnastics, 7 people experienced a shorter period II labor, namely 15 - 30 minutes and a tridak experienced a birth canal tear, while 6 people who did not do pregnancy exercises experienced a longer period II labor, which was 45 minutes – 1 hour and 5 people experienced a birth canal tear and 1 person did not experience a road tear born.

The purpose of this study is to determine the relationship between the duration of labor in the second period and birth canal tears in mothers who do pregnancy exercises at BPM Mrs. E Tasikmalaya City in 2022.

## RESEARCH METHOD

This type of research is correlational, which is a study that examines two or more variables simultaneously using a *cross sectional* approach, which is research that studies the dynamics of correlation between risk factors and effects by means of approach, observation or data collection at the same time (*point time approach*.) means that each subject is only observed once and measurements are made against a character or variable at the time of examination (Dainty Maternity et al., 2021).

The data used were primary data with research instruments in the form of questionnaires and observations carried out using a partograph instrument on maternity mothers who did pregnancy exercises. Data collection to respondents was carried out on primipara maternity mothers who did pregnancy exercises at BPS Mrs. E Tasikmalaya City. Population is the entire object or subject that is in a region and meets certain conditions related to the research problem, or the entire unit or individual within the scope to be studied (Parmadi & Pratama, 2020).

The population used in this study is all mothers who have a history of primipara childbirth in January-July 2022 at BPS Mrs. E Tasikmalaya City which totals 32 respondents (Indrawati & Mustika, 2014).

A sample is a part of a population that is considered representative of that population. The sample in this study was all mothers who had a history of childbirth who did pregnancy exercises at BPS Mrs. E in Tasikmalaya City which amounted to 32 respondents (Prawirohardjo, 2010).

The sampling technique used in this study is by using *the total sampling population*. The fact is that sampling the population as a whole has the same opportunity as a sample (Hatijar & Yanti, 2020).

Inclusion criteria are the general characteristics of the research subjects of an affordable target population to be studied. The inclusion criteria in this study are: (a) Primaripara maternity mothers who do pregnancy exercises at BPS Mrs. E Tasikmalaya City (b) Mothers who have a history of childbirth in January-July 2022 (c) Mothers who are willing to become respondents. (d) Mothers who fill out the research instruments completely (Saifuddin, 2002).

The instrument test is to test the instruments used in the research as data collection. In this study, the instrument used is a questionnaire. After the questionnaire is prepared, it cannot be used immediately to collect data. The questionnaire needs to go through the validity and reliability test stage. For this reason, it is necessary to conduct trials in the field. The respondents used for the trial have the characteristics of respondents from the place where the research will be carried out.

The questionnaire trial was conducted on 10 pregnant women at BPM Mrs. E Tasikmalaya City. The respondent criteria for the instrument trial are the same as the research respondent criteria.

Validity is a measure that shows the level of reliability of a measuring tool. A measuring instrument that is less valid means that it has low validity and a measuring instrument can be said to have high validity if it has the measuring instrument carrying out its measurement function in accordance with the purpose of the measurement. This validity test uses SPSS 18.0 for windows. Based on the validity test of the Pregnancy Gymnastics variable from 10 question items, all of them are valid.

Reliability is a measure that shows the extent to which a measuring device is trustworthy or reliable (Rahmawati & Lestari, 2016). This means that it shows the extent to which the measurement results can remain consistent when measured twice or more for the same symptom, by, using the same ukr tool.

A statement is measured as reliable if a person's answer to a question is consistent or stable over time. Reliability testing starts by testing the validity first. If a question is invalid, then it is discarded. The valid questions are then jointly measured for reliability. Variable reliability uses the Alpha formula or *Cronbach's Alpha coefficient*.

The limit value is introduced to assess or test whether each variable is reliable, reliable and accurate using the alpha coefficient formula of *Cronbach's* > r value table.

The results of the reliability test of each research questionnaire were the pregnancy gymnastics variable of 0.841 in the  $r_{table}$  0.6319. If referring to these conditions, the overall reliability of the questionnaire in this study is reliable.

Data processing is carried out after data collection and data will be regulated by using a computerized system with Program *Statistic Product For Service Solutions* (SPSS) version 18.

Data analysis techniques used for This research uses a *Chi Square*, Meanwhile, the Chu Square test is used to test two groups of data, both independent and dependent variables, in the form of categorical or can be said to be a proportional test for two or more events.

The purpose of this analysis is to determine the relationship between the duration of childbirth in the second period and birth canal tears in pregnant mothers who do pregnancy exercises at BPM Mrs. E Tasikmalaya City in 2022.

The presentation of data in this study is carried out in a narrative (sentence) or providing written descriptions, tabular is providing information in the form of numbers in the form of master tables and frequency distribution tables, as well as graphs and images that are usually more attractive of each variable.

The variables studied include independent variables (pregnancy exercises) and dependent variables (duration of delivery phase II). The number of respondent samples amounted to 32 people. The data is presented in the form of tables and text.

Based on the existing theory, it was revealed that to see the relationship between the duration of childbirth in the second period and the tear of the birth canal in maternity mothers in January-July 2022 who did hami gymnastics mdi BPS Mrs. E Tasikmalaya City.

## RESULT AND DISCUSSION

### Univariate Analysis

Univariate analysis is an analysis to find out variable frequency distribution of each variable. Bivariate analysis performed to look for a relationship between two variable, i.e. variable and bound variables that are suspected to have a relationship or correlation.

The variables studied include variable independent (Pregnancy Gymnastics) and variable dependent (Childbirth in the second phase and Tear of the birth canal). The number of respondent samples was 32 respondents.

**Table 1 Distribution of Frequency of Duration of Period II Childbirth and Birth Canal Tear in Mothers Who Perform Pregnancy Exercises at BPM Mrs. E Tsikmalaya City in 2022**

Variable	Frequency (n)	Percentage (%)
<b>Duration of Childbirth Phase II</b>		
Normal	21	65.6
Old	11	34.4
<b>Road Tear Born</b>		
Yes	17	53.1
No	15	46.9
<b>Pregnancy Gymnastics</b>		
Routine	19	59.4
No Ruti	13	40.6

*Source : Results of Research Data Processing in 2022*

Based on table 1, it shows that of the 32 respondents of maternity mothers who do pregnancy exercises at BPM Mrs. E Tasikmalaya City, 21 people (65.6%) experienced normal period II labor and 11 people (34.4%) experienced a long period of period II labor. Meanwhile, the variable of birth canal tear showed that of the 32 respondents of maternity mothers who did pregnancy exercises at BPM Mrs. E Tasikmalaya City, 17 people (53.1%) experienced a birth canal tear and 15 people (46.9%) did not experience a birth canal tear. Meanwhile, the variable of pregnancy gymnastics showed that of the 32 respondents of maternity mothers who did pregnancy exercises at BPM Mrs. E Tasikmalaya City, 19 people (59.4%) of them

routinely did pregnancy gymnastics and 13 people (40.6%) of them did not routinely do pregnancy gymnastics.

Based on table 1 above, it shows that the variable duration of phase II labor, most of the mothers who do pregnancy exercises at BPM Mrs. E Tasikmalaya City in 2022 experienced a normal phase II duration of labor, which was 21 people (65.6%).

Meanwhile, the variable of birth canal tear showed that most of the mothers who did pregnancy exercises at BPM Mrs. E in Tasikmlaya city in 2022 experienced birth canal tears, namely 17 people (53.1%). Meanwhile, the variable of pregnancy gymnastics shows that most of the mothers who do pregnancy exercises at BPM Mrs. E Tasikmalaya City in 2022 routinely do pregnancy exercises, namely 19 people (59.4%).

### Bivariate Analysis

**Table 2 Cross-tabulation of the Relationship between the Duration of Childbirth at the Time of II in Pregnant Mothers Who Do Pregnancy Exercises at BPM Mrs. E Tasikmalaya City in 2022**

Variable	Pregnancy Gymnastics				Total		Chi-square	p Value (OR)
	Routine		Not Routine		N	%		
	N	%	N	%	N	%		
<b>Duration of Childbirth Period II</b>								
Usual	17	53.1	4	12.5	21	65.6	9.333	0.001
Old	2	6.2	9	28.1	11	34.4		
<b>Birth Tear</b>								
Yes	15	49.6	2	6.2	17	53.1	10.101	0.000
Not	4	12.5	11	34.4	15	46.9		

Source : Results of Research Data Processing in 2022

Based on table 2, mothers whose duration of labor in the second period of labor are normal routinely do pregnancy exercises as many as 17 people (53.1) and those who do not routinely do pregnancy exercises as many as 4 people (12.5%). Mothers whose duration of childbirth in the second period is long, namely 2 people routinely do pregnancy exercises (6.2%) and those who do not routinely do pregnancy exercises as many as 9 people (28.1%). And it was obtained that mothers who gave birth with a tear of the birth canal routinely did pregnancy exercises, namely 15 people (49.6%) and those who did not routinely do pregnancy exercises as many as 2 people (6.2%). Pregnant mothers who did not experience a tear in the gymnastics path were pregnant as many as 11 people (34.4%).

Based on the results of the calculation, it was obtained that the p value was  $0.001 < \alpha (0.05)$  thus  $H_0$  was rejected, meaning that there was a relationship between the duration of childbirth in the second period of labor in mothers who did

pregnancy exercises at BPM Mrs. E Tasikmalaya City in 2022. The calculation results obtained that the p value of  $0.000 < \alpha (0.05)$  thus  $H_0$  was rejected, meaning that there was a relationship between birth canal tears in mothers who did pregnancy exercises at BPM Mrs. E Tasikmalaya City Year 2022.

## Discussion

### *Overview of Pregnancy Gymnastics at BPM Mrs. E Tasikmalaya City in 2022*

Of the 32 respondents of maternity mothers who did pregnancy exercises at BPM Mrs. E Tasikmalaya City, 19 people (59.4%) of them routinely did pregnancy exercises and those who did not routinely do pregnancy exercises 13 people (40.6%). This study indicates that almost all maternal respondents who gave birth at BPM Mrs. E Tasikmalaya City in 2022 routinely did pregnancy exercises.

This is in accordance with a study conducted by Hendramin (2010), namely the influence of pregnancy exercises on the delivery process, showing that there is a significant influence between pregnancy exercises and the delivery process with statistical tests (p value = 0.014).

Pregnancy Gymnastics is a form of exercise to strengthen and also maintain the flexibility of the abdominal wall, pelvic floor muscles which will later facilitate the normal delivery process. Pregnancy Gymnastics, It is carried out with the aim of maintaining the condition of the body parts that play a role in the delivery process so that pregnant women are expected to be able to give birth physiologically (Normal Childbirth). (1) Preparing pregnant women in the delivery process (2) Training and preparing pregnant women to face the birth of their babies. (3) Train and encourage pregnant women to relax in the face of the delivery process. (4) Preparing pregnant women, both physically and psychologically, to face the labor process so that it can take place more smoothly. (5) Strengthening the muscles of the legs, considering that the legs will support the weight of the mother's body which gets heavier over time as the gestational age increases. (6) Prevent varicose veins, which is the dilation of segmental veins that are not uncommon in pregnant women. (7) Extend the breath, because as the fetus increases, he will push the contents of the stomach towards the chest, the diaphragm will make the chest cavity narrower and the mother's breathing cannot be optimal. With pregnancy exercises, the mother will be invited to practice so that her breath is longer and remains relaxed. (8) Special breathing training called panting quick breathing is mainly done whenever the stomach feels tight. (9) Tension training, special exercises to deal with childbirth, in order to strain correctly so that the baby can come out smoothly and not be stuck in the birth canal. (10) Most importantly, consult your obstetrician or midwife before doing pregnancy exercises. Health experts and experts divide pregnancy gymnastics into four stages, each of which has its own benefits for pregnant women, and these stages must be done with Recommended rules, and movements are also adjusted to the age of the womb. (1) Gymnastics is done at least 3 times a week. (2) It is recommended to do it at the end of waking up in the morning.

Some of the benefits of pregnancy gymnastics are: (1) Mastering breathing techniques. Breathing exercises are very useful for getting oxygen, while breathing

techniques are trained so that any mother faces childbirth. (2) Strengthen muscle elasticity. Strengthens and maintains the elasticity of the abdominal wall muscles so that they can prevent or overcome complaints of buttocks, in the lower abdomen and hemorrhoid complaints. (3) Reduce complaints. Train the posture of the body while pregnant so as to reduce complaints arising from changes in body shape. (3) Practicing relaxation. The relaxation process will be perfect by doing the contraction and relaxation exercises necessary to overcome tension or pain during the labor process. (4) Avoid difficulties. Pregnancy exercises help with childbirth so that mothers can give birth without difficulty, as well as take care of the mother and baby after giving birth. Actually, pregnancy gymnastics can also be done at home, but gymnastics must be done regularly, in calm conditions and using loose clothes.

The general purpose of pregnancy gymnastics is that through regular pregnancy gymnastics exercises will be able to maintain the condition of the muscles and joints which will later play a role in the mechanism of childbirth, enhance physical and psychological health as well as confidence in themselves and helpers in dealing with childbirth and guide women towards a physiological oersalina.

The special purpose of pregnancy gymnastics is to strengthen and maintain the elasticity of the pelvic floor muscles, ligaments and tissues as well as fascia that play a role in the labor mechanism, flex the joints related to the labor process, form a good body posture so that it can help overcome complaints, the location of the fetus and reduce shortness of breath, master breathing techniques in childbirth and be able to regulate yourself in tension.

Pregnancy Gymnastics is a form of exercise to strengthen and also maintain the flexibility of the abdominal wall, pelvic floor muscles which will later facilitate the normal delivery process. Pregnancy Gymnastics is carried out with the aim of maintaining the condition of the body parts that play a role in the delivery process so that pregnant women are expected to be able to give birth physiologically (Normal Childbirth).

Pregnancy exercises will provide a better result of pregnancy products or *birth outcomes*, compared to pregnant women who do not do gymnastics pregnant. The usefulness of pregnancy exercises in *prenatal care* is reported to increase and reduce the occurrence of low birth weight, reducing the occurrence of premature birth. Overall, pregnancy gymnastics will have an impact on improving the health of pregnant women. Relaxation exercises will greatly help relieve mental and physical tension for pregnant women as well as for the baby who is being conceived. Thus, pregnant women will certainly have an easier time facing childbirth.

It is a thing that pregnant women need to realize, that pregnancy gymnastics is a form of exercise used to strengthen and maintain the elasticity of the abdominal wall, ligaments, pelvic floor muscles related to the delivery process.

Many things are taught in this pregnancy gymnastics, for example about how to deal with childbirth including position, regulating breathing when straining, to how to strain, and from the beginning of learning it is hoped that through this

pregnancy gymnastics the mothers-to-be feel more prepared to undergo labor, and this readiness must be in a physical and mental sense.

Exercise is very important for pregnant women, to still get a healthy and fit body. However, the sports carried out must also be in accordance with physical needs. Pregnancy exercises usually begin when pregnancy enters 20-30 weeks of pregnancy. In addition to maintaining fitness, pregnancy gymnastics is also needed to improve the physical and mental readiness of mothers-to-be during the delivery process.

In addition to the main benefits of pregnancy gymnastics as a support for the delivery process, there are still many benefits of pregnant women's gymnastics, including good for the health of pregnant women before the delivery process and having a positive impact on the development of the fetus in the womb.

According to the researcher's assumption, there are already many maternity mothers at BPM Mrs. E Tasikmalaya City in 2022 who know the benefits of doing pregnancy exercises so that many mothers routinely do pregnancy exercises.

#### ***Relationship of Duration of Childbirth in Mothers Who Do Pregnancy Exercises***

From the results of the analysis, it was obtained that mothers whose duration of childbirth in the second period was the norm of 17 people (53.1%) routinely doing pregnancy exercises and 4 people did not routinely do pregnancy exercises, while mothers whose duration of labor in the second period was long, 2 people (6.2%) routinely did pregnancy exercises and 9 people (28.1%) did not routinely do pregnancy exercises.

This is in accordance with the research conducted by Indrawati (2014), namely there is a significant influence between pregnancy exercises and the duration of period II From the results of the analysis, the results of the independent t test, the same data variant was obtained ( $p=0.233 > 0.05$ ) so that the t test used above was t of -1.604 with a value of  $p = 0.119 (>0.05)$  so that it was stated that there was no significant difference between the duration of period II in mothers who participated in pregnancy exercises and Mothers who do not participate in pregnancy gymnastics.

Childbirth is a natural process that will take place on its own, but childbirth in humans is always threatened by complications that endanger the mother and fetus so that they require supervision, help and services with adequate facilities.

Labor begins (infartu) when the uterus contracts, causing changes in the cervix (dilation and thinning) and ends with the birth of the placenta in its entirety.

Childbirth is a natural process experienced by women, which is the production of the results of conception that has been able to live outside the womb through several processes such as thinning and opening of the cervix, as well as contractions that occur in a certain time without complications.

Labor is the process of opening and thinning the cervix, and the fetus descends into the birth canal. Birth is the process by which the fetus and amniotic fluid are pushed out through the birth canal.

Childbirth is the process of exiting the movement of the fetus, placenta and membranes from the uterus through the birth canal. This process begins with the

opening and dilatation of the cervix as a result of uterine contractions with regular frequency, duration and intensity. At first the force that appears is small, then it continues to increase until the peak of the complete opening of the cervix until it is ready for the removal of the fetus from the mother's uterus.

Labor is a process that begins with uterine contractions that cause progressive dilation of the cervix, birth of the baby, and birth of the placenta and this process is a natural process. Childbirth is a process of removing the results of conception from the mother's womb through the birth canal or by other means, which then the fetus can live in the outside world. Childbirth is a natural process experienced by women, which is the production of the results of conception that has been able to live outside the womb through several processes such as thinning and opening of the cervix, as well as contractions that occur in a certain time without complications.

Childbirth is the process of opening and thinning the cervix and the fetus descending into the birth canal. Normal delivery and birth is the process of fetal expulsion that occurs in full-term pregnancy (37-42), born spontaneously with the presentation of the back of the head, without complications for both mother and fetus.

Normal labor and birth is the process of fetal production that occurs in full-term pregnancy (37-42 weeks), born spontaneously with a percentage of the back of the head that lasts within 18 hours, without complications either in the mother or in the baby.

Childbirth II is the process of removing the pregnancy fruit as a result of the introduction of the process and management of the opening period which begins with the complete opening of the cervix and ends with the birth of the baby.

The duration of period II childbirth is the time of period II which starts from the complete opening and the time that is said to be normal for primipara mothers is 1-2 hours if it is more than that it is no longer a normal delivery.

According to the researcher's assumption is that from the results of this study, most of the maternity mothers who routinely do pregnancy exercises experience The normal duration of stage II labor proves that pregnancy exercises are very influential for the delivery process, both maternal physical and maternal psychology.

### ***Birth Canal Tear Relationship in Mothers Who Do Pregnancy Exercises***

From the results of the analysis, 15 mothers (49.6%) who experienced a tear in the birth canal routinely did pregnancy exercises and 2 people did not routinely do pregnancy exercises, while mothers who did not experience a birth canal tear 4 people (14.5%) routinely did pregnancy exercises and 11 people (34.4%) did not routinely do pregnancy exercises.

This is in accordance with research conducted by Lestari (2013), namely that there is a significant relationship between pregnancy exercises and perineal tears in primigravida maternity mothers at the Tegalrejo Health Center, Argomulyo District, Salatiga City. ( $p\text{-value } 0.029 < \alpha (0.05)$ ).

A birth canal tear is a tear that occurs in the perineum during childbirth and this tear has 4 stages, namely degree 1, degree 2, degree 3 and degree 4, where we

as midwives are authorized to handle degrees 1 and 2 for the rest of the doctors who are more authorized.

The factors that cause a tear in the birth canal include: (1) Partus Persipitatus is his that is too strong and too frequent so that there is no relaxation of the uterus. This can cause the occurrence of partus presipitatus which can cause labor on the vehicle, in the bathroom, and not having time to help. As a result, there are extensive birth canal injuries to the cervix, vagina and perineum, and intracranial hemorrhage can occur in babies. In the precipitation, there is not much that can be done because the fetus is born suddenly and quickly.

(2) Strain too hard. Spontaneous lacerations of the vagina or perineum can occur when the head and shoulders are born. The incidence of lacerations will increase if the baby is born too early and is not constrained. The consequences of partus precipitatus include perineal tears and even cervical tears which can result in postpartum bleeding, baby head injuries and baby depression. At the time of delivery, power is needed from the mother, a form of encouragement stress. The urge to strain appears at the same time as the appearance of his or uterine contractions. A good canal can open the birth canal quickly, but this is influenced by the way the mother strains, meaning that if the birth canal is good but the mother is not strong then there will be no opening of the birth canal. Meanwhile, if the mother strains too hard when giving birth to the head, which is the largest diameter of the fetus, it will cause perineal laceration. When the head has begun to be born, the mother is asked to take a long breath, to avoid straining because *the inciput*, face and chin which have a long size will affect the perineum. The head should be born at the end of the contraction so that the strength is not too strong.

(3) Primipara. When the fetal head has reached the base of the pelvis, the vulva begins to open. The hair of the fetal head begins to appear. The perineum and anus seem to be starting to stretch. The perineum starts higher, while the anus starts to open. The anus is initially round, then "D" shaped. What is visible in the anus is the front wall of the rectum. If the perineum is not restrained, it will tear (= *ruptura perinei*), especially in primigravidas. The perineum is held with the right hand, preferably with sterile gauze. Perineal tears occur in almost all first deliveries and not infrequently in subsequent deliveries.

(4) Pelvic narrowness. The lower pelvic portal is a flat plane, but consists of the anterior triangle and the posterior triangle that have the same element, namely the *distansia tuberum*. If the size of the latter is smaller than normal, then the angle of the *arcus pubis* shrinks (less than 80°). In order for the fetal head to be born in this case, a larger space is needed at the back of the pelvic door. With a sufficient posterior sagittal diameter, vaginal delivery can be performed, even with extensive incisions in the perineum.

(5) Vulva varicose veins. Pregnant women often complain about dilation of blood vessels, which occurs in the legs, vagina, vulva, and hemorrhoids occur. In addition to not looking good, dilation of blood vessels can be a potential source of bleeding during pregnancy and childbirth. The difficulty that may be encountered is during childbirth with large vulvar varicose veins so that bleeding can occur during episiotomy. (6) Flexibility of the birth path. The perineum, although not a genital, is always involved in the labor process. If the perineum is soft and elastic

enough, then the birth of the head does not experience difficulties. Usually the perineum is torn and most often occurs grade II and III perineal ruptures. A stiff perineum inhibits stage II labor which increases the risk of death for the fetus, and causes extensive birth canal damage. Such a condition can be found in primigravidas, which are generally more than 35 years old, which is commonly called an old primi.

(7) Large fetus. A large fetus is when the body weight exceeds 4000 grams. Childbirth with a large fetal weight can cause perineal lacerations. Fetal weight can affect labor and perineal laceration. Babies who have a large body weight can cause complications in childbirth, including old partus, stuck partus and shoulder dystocia. (8) Deflation Presentation. The reflection presentation referred to in this case is the presentation of the top of the head and the presentation of the forehead. The presentation of the top of the head at the bottom is the top of the head, at the examination in the palpation of the lowest Ubun-ubun Besar (UUB), and the UUB has rotated forward. According to statistics, this happens in 1% of all births. Complications that occur in mothers are long partus or wider birth canal tears. The forehead presentation is the position of the head between flexion and deflection, the forehead is at its lowest position and remains at the forefront.

In forehead placement, it will usually change to the face or the back of the head. The labor mechanism of the head enters the pelvis usually with the forehead transverse, or inclined. At the time of axis rotation, the forehead rotates forward. Maxilla (*fossa canina*) as a hypomollion is under symphysis, then flexion occurs to give birth to the back of the head through the perineum, then deflection, then the mouth and chin under symphysis are born. This results in the partus becoming longer and more difficult, there can be severe tears and uterine ruptures. (9) Butt Presentation. The presentation of the buttocks or breech is a fetus that is located elongated (longitudinal) in the uterus, the head is in the fundus and the buttocks are below. Childbirth with complications such as breech is an indication for an episiotomy. (10) Shoulder dystocia. Shoulder dystocia is a condition that requires additional obstetric maneuvers because if done with a normal pull backwards on the baby's head does not succeed in delivering the baby. Childbirth with shoulder dystocia often causes damage to the lower genital tract such as perineal lacerations.

(11) Congenital disorders. Hydrocephalus is the accumulation of cerebrospinal fluid in the ventricles of the brain so that the fetal head becomes large and the crown becomes wide. The amount of liquid can reach 1.5 liters, some even up to 5 liters. Abnormalities such as spinabifida and other congenital defects in the fetus are often found. Childbirth with hydrocephalus disorders is recommended to be performed by abdomination to avoid birth canal injuries and injuries to the fetus. (12) How to lead tension and thrust in the uterine fundus. The role of a birth attendant is to anticipate and handle complications that may occur to the mother and fetus. In this case, the process depends on the ability of the helper to deal with the delivery process. (13) The skill of holding the perineum during head expulsion. Preventing lacerations is with good cooperation between helpers, especially during head *crowning* (5-6 cm opening in the vulva) and controlled head birth and slowly giving time to the vagina and perineum to make adjustments to reduce tearing.

When the fetal head reaches the pelvic floor, the vulva begins to open, the hair of the head is visible. Each of his heads is more advanced, the anus is open, the perineum is stretched. The helper must hold the perineum with his right hand based on a sterile gauze or doek, so that there is no perineal tear. (14) Recommendation of the tense position. The delivery assistant should facilitate the mother in choosing her own tension position and explain the alternative tension position if the position chosen by the mother is ineffective.

The main factors that cause birth canal tears are (1) maternal factors such as: parity, straining too strongly, pelvic muscle flexibility and narrowness of the lower pelvis. (2) fetal factors such as: large fetus, presentation of the baby's head and baby position, (3) supporting factors such as: lack of pressure advice, lack of position recommendations that can help the delivery process and lack of restraint of the perineu muscles.

According to the researcher's assumption, from the results of this study, many mothers who routinely do pregnancy exercises do not experience a tear in the birth canal even though the mother is giving birth for the first time, this proves the importance of doing pregnancy exercises to flex the perineal muscles so that they do not experience tears.

## CONCLUSION

Based on the results of the research on the Relationship between the Duration of Childbirth Period II and Birth Canal Tears in Maternity at BPM Mrs. E Tasikmalaya City in 2022, it can be concluded as follows: 1. An overview of the duration of labor during II in primipara maternity mothers at BPM Mrs. E Tasikmalaya City in 2022 based on the results of this study, it can be concluded that most of them are in the normal category, namely 21 people (65.6%). 2. The description of the birth canal tear of primipara maternity at BPM Mrs. E Tasikmalaya City in 2022 based on the results of this study, it can be concluded that most of them are in the category of experiencing birth canal tears, namely 17 people (53.1%). 3. Knowing the description of primipara maternity pregnancy gymnastics at BPM Mrs. E Tasikmalaya City in 2022 based on the results of this study, it can be concluded that most of them are in the category of routinely doing pregnancy exercises, namely 19 people (59.4%). 4. There is a relationship between the duration of labor at II in mothers who do pregnancy exercises at BPM Mrs. E Tasikmalaya City in 2022 ( $\rho$  value = 0.001 at  $\alpha = 0.05$ ). 5. There is a relationship of tearing the birth canal in mothers who do pregnancy exercises at BPM Mrs. E Tasikmalaya City in 2016 ( $\rho$  value = 0.000 at  $\alpha = 0.05$ ).

Based on the limitations of this study, the suggestions that can be given are: 1. With this research, it can improve the quality of service at BPM Mrs. E, can maintain a better quality of service so that patients are satisfied with the services provided and patients get satisfactory services. 2. It is hoped that all pregnant women, especially pregnant women who are within the scope of BPM, Mrs. E applies the theory in this study, namely routinely doing pregnancy exercises to prepare for childbirth. 3. To be able to be the basis for further research and research other variables, for example, such as reducing back pain during childbirth so that good research results are realized.

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