

Analysis of Age and Gravidity Factors with the Occurrence of Prolonged Parturition in the Midwifery Room of the Viqueque City District Hospital, Timor-Leste

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ABSTRACT

Prolonged or obstructed labor constitutes 8% of the causes of maternal mortality globally and is also the cause of fetal death. One of the causes of prolonged labor is maternal age and gravidity. The purpose of this study was to analyze the factors of age and adolescence with the incidence of prolonged labor in the midwifery room of the Viqueque City Hospital, Timor Leste. This study used an analytical research design with a cross sectional approach. The population was all women who gave birth for a long time in the midwifery room of the Viqueque City Hospital, Timor Leste, which could be 30 people. The sampling technique used accidental sampling. The research instrument used a questionnaire and observation sheet. The data analysis used Chi Square statistical test. The results showed that more than half of the respondents (66.7%) aged 20-35 years were 20 respondents and more than half (53.3%) were multigravidas as many as 16 respondents, more than half (60%) did not occur during prolonged labor, namely as many as 18 respondents. Based on the results of statistical tests using Chi Square calculations, it is not known that no one knows it is $0.002 < 0.05$ so it can be shown that there is a relationship between the incidence of prolonged labor. Women with higher parity are at higher risk of prolonged labor because the uterus has weakened the uterine wall muscles due to a previous pregnancy. The solution that needs to be done regarding the results of the above research is to enable health education about the and risk factors for the old party to the mother by health workers causes and early detection of risk factors for prolonged labor must be improved.

Keywords: Age, Gravidity, Old Parturition

INTRODUCTION

Prolonged or obstructed labor is 8% of the causes of maternal death globally and is also a cause of fetal death. The causes of maternal death in Indonesia are still dominated by bleeding (32%) and hypertension in pregnancy (25%), followed by infection (5%), prolonged labor (5%), and abortion (1%) (Ministry of Health of the Republic of Indonesia, 2013). Prolonged or obstructed labor is 8% of the causes of maternal death globally and is also a cause of fetal death. The fetus dies due to excessive pressure on the placenta and umbilical cord. Fetal death can be a cause of disseminated intravascular coagulation resulting in bleeding, shock and death (Sarwono, 2014). Prolonged labor apart from causing shock, post partum hemorrhage (HPP), infection, uterine rupture, uterine prolapse, amnionitis, and puerperal sepsis, dehydration, maternal fatigue, baby asphyxia can also result in maternal and fetal death.

There are several factors that cause prolonged labor, namely maternal factors, namely cephalopelvic disproportion (CPD), uterine inertia, inefficient and inadequate vaginal delivery,

age, and parity/gravidity. Meanwhile, the baby factors are the baby's weight, premature rupture of membranes (KPD), gestational age and malpresentation or malposition (Sarwono, 2010). The causes of prolonged labor are maternal factors such as cephalopelvic disproportion (CPD), uterine inertia, inefficient and inadequate delivery, age, and parity/gravidity and baby factors such as baby weight, premature rupture of membranes (PROM), gestational age and malpresentation. or mal position.

From the initial survey at the Midwifery Hospital , Viqueque City Regency Hospital, Timor Leste There were 10 incidents of prolonged labor in a period of 3 months from September to November 2019. Of these 10 incidents, 8 mothers (80%) were multigravida and 2 mothers (20%) were primigravida, 7 mothers (70%) were over 35 year and 3 mothers (30%) aged under 35 years. The solution that needs to be implemented is health education about the causes and risk factors for prolonged labor to mothers by health workers and early detection of risk factors for prolonged labor. The aim of this research is to analyze factors Age and Gravidity with Late Parturition in the Midwifery Room of Viqueque City Regency Hospital, Timor Leste.

METHOD

This research is a cross sectional analytical research design. Cross sectional research is a type of research that reduces the measurement/observation time of variable and dependent data and is assessed simultaneously at one time, so there is no follow-up (Nursalam, 2014). The population (N) is all mothers giving birth with a long labor in the Obstetrics room of the Regency Hospital of Viqueque City, Timor Leste. The sample was some mothers giving birth with a long labor in the Obstetrics room of the Regency Hospital of Viqueque City, Timor Leste. totaling 30 respondents. The sampling technique uses accidental sampling. The independent variable is Age on an Ordinal scale, Gravidity on an Ordinal scale, the dependent variable is Duration of Parturition on a Nominal scale. The operational definition of age is the span of life measured in years, age is the length of life in years calculated from birth in the categories < 20 years, 20-35 years, and > 35 years. Gravidity is the total number of pregnancies in a mother in the categories of primigravida, multigravida and grandemultigravida. Prolonged labor is the time in hours required for the mother to undergo labor in the category > 24 hours in primi and > 18 hours in multi. The measuring tools used for age and gravidity are questionnaires and medical records for old pratuses. Research time May – June 2020 in the Obstetrics room of Viqueque City Regency Hospital, Timor Leste. The data collection and processing process in this research, prior to data collection, submitted a cover letter from the Faculty of Nursing, DIV Midwifery Study Program, IIK Strada, then submitted it to the Midwifery room of the Viqueque City Regency Hospital, Timor Leste , to request permission to collect initial data. After obtaining permission, the researcher then asked the respondent's permission to be used as subjects to conduct a preliminary study to determine factor relationships Age and Gravidity with Late Parturition in the Obstetrics room of Viqueque City Regency Hospital, Timor Leste . The method of collecting data is using questionnaire interviews and observation. Researchers continue to prepare a proposal. After the proposal, research is then continued with the preparation of the thesis. In data collection the next steps are Editing, Coding, Tabulating, Cleaning, Entry data. Data analysis uses the Chi Square statistical test with the interpretation that if the p value < level of significance (0.05) then the conclusion is that Ho is rejected and H1 is accepted, meaning that there is a relationship between age and gravity factors with the incidence of prolonged labor. in the Obstetrics room of Viqueque City Regency Hospital, Timor Leste .

RESULT

Age

Table 1 Age frequency distribution

No	Economic Status	Frequency (f)	Percentage (%)
1	< 20 years	10	33.3
2	20 – 35 years	20	66.7
3	> 35 years	0	0
	Amount	30	100

Source: 2020 research primary data

Based on table 1 above, it shows that of the 30 respondents, more than half of the respondents (66.7%) were aged 20-35 years, namely 20 respondents.

Gravidity

Table 2 Gravidity Distribution

No	Interest	Frequency (f)	Percentage (%)
1	Primigravida	14	46.7
2	Multigravida	16	53.3
3	Grandemultigravida	0	0
	Amount	30	100

Source: 2020 research primary data

Based on table 2 above, it shows that of the 30 respondents, more than half (53.3%) were multigravida, namely 16 respondents.

Long Parturition

Table 3 Distribution of Old Parturition

No	Long Parturition	Frequency (f)	Percentage (%)
1	Happen	12	40
2	Not occur	18	60
	Amount	30	100

Source: 2020 research primary data

Based on table 3 above, it shows that of the 30 respondents, more than half (60%) did not have a prolonged parturition, namely 18 respondents.

Relationship between Age and Long Parturition

Table 4. Relationship between age and prolonged parturition

Age	Long Parturition				Total
	Happen		Not occur		
	Σ	%	Σ	%	
< 20 years	8	26.6	2	6,7	10
20 – 35	4	13.3	16	53.3	20
> 35 years	0	0	0	0	0
Total	12	40	18	60	30
α=0.05 p-value =0.000					

From the table above, it is known that the majority of respondents were aged 20-35 years and 16 people (53.3 %) did not have a long term labor. Based on the results of statistical tests using Chi Square calculations, it is known that the output above shows that the statistical test results for the Age and Prolonged Parturition variables are $0.002 < 0.05$, so it can be concluded that there is a relationship between maternal age and the incidence of prolonged parturition.

The Relationship between Gravidity and Prolonged Parturition

Table 5: Relationship between age and prolonged parturition

Gravida	Long Parturition		Not occur		Total
	Happen				
	Σ	%	Σ	%	
Primigravida	11	36.6	3	10	14
Multigravida	1	3,4	15	50	16
Grandemultigravida	0	0	0	0	0
Total	12	40	18	60	30

$\alpha=0.05$ p-value =0.000

From the table above, it is known that the majority of respondents were multigravida and 15 people (50%) did not experience prolonged labor. Based on the results of statistical tests using Chi Square calculations, it is known that the output above shows that the statistical test results for the Gravida variable and the incidence of prolonged parturition are $0.000 < 0.05$, so it can be concluded that there is a relationship between maternal gravidity and the incidence of prolonged parturition.

DISCUSSION

Age

Based on table 1 above, it shows that of the 30 respondents, more than half of the respondents (66.7%) were aged 20-35 years, namely 20 respondents.

In theory, 20-35 years is a safe period for giving birth, but in developing countries around 10-20% of babies are born to teenage mothers. The risk of childbirth is also higher in older women. In the healthy reproductive period, it is known that the safe age for pregnancy and childbirth is 20-35 years. Deaths due to prolonged labor in women aged under 20 years are 2-5 times higher than deaths that occur at the age of 20-35 years. Late parturition increases again after the age of 35 years. Age less than 20 years means that marriage at a young age will result in narrow pelvis and prolonged childbirth. Childbirth aged over 35 years is also a high risk. Mothers aged over 35 years have a declining health condition. At the age of under 20 years, the uterus and pelvis often have not yet grown to adult size. As a result, pregnant women at that age may experience prolonged labor or other disorders due to the mother's unpreparedness to accept the duties and responsibilities of being a parent. Being too young significantly increases the risk of childbirth worldwide. On the other hand, the risk of giving birth again increases after the age of 30 or 35 years. In research conducted in the United States, women aged 40-44 years had a maternal mortality rate that was 10 times higher than women aged 24 and 25 years.

Whatever the mother's age , the risk of prolonged labor is always there considering the many factors that cause and predispose to prolonged labor.

Gravidity

Based on table 5.5 above, it shows that of the 30 respondents, more than half (53.3%) were multigravida, namely 16 respondents.

According to Sarwono (2012), several causes of prolonged labor in multigravida are uterine inertia. In line with research by Hinelo et al 2013 in their research entitled Prolonged

Parturition Outcomes at BLU RSU Prof. DR. RD KANDOU Manado. The results of statistical tests on the distribution of maternal parity were obtained, originating from data obtained in 2010, parity-1, namely 21 patients (70.0%), parity 2-4, eight patients (26.7%) and parity-5 or more, as many as one patient (3.33%). Meanwhile in 2011 parity-1 was 29 patients (67.5%), parity 2-4 was 13 patients (30.2%) and parity-5 or more was one patient (3.33%). According to the research above, it shows that mothers with parity-1 tend to have a greater risk of experiencing prolonged labor by 3.45 times and this is statistically significant.

According to researchers, it is known that maternal parity is one of the factors that influences the occurrence of prolonged labor in Primiparous mothers and was also found in Multiparous mothers at Pringsewu Regional Hospital in 2014.

Relationship between Age and Old Birth

Based on the results of statistical tests using Chi Square calculations, it is known that the output above shows that the statistical test results for the Age and Prolonged Parturition variables are $0.002 < 0.05$, so it can be concluded that there is a relationship between maternal age and the incidence of prolonged parturition.

In theory, the age of 20 – 35 years is a healthy reproductive age (DR. HM. Andalas. , SPOG . 2014) , which means that within that age range , if a woman is pregnant, her condition will be safe. The results of this research are in accordance with research by Dewi Yuliasari, et al, 2016 which explains the relationship between age and the incidence of prolonged parturition. Deaths due to prolonged labor in women aged under 20 years are 2-5 times higher than deaths that occur at the age of 20-35 years. The incidence of prolonged labor increases again after a person is 35 years old or more (Mochtar, R., 2012). Ages < 20 years are at risk of prolonged labor because the pelvis is still narrow. Childbirth in mothers aged > 35 years is also a high risk because women over 35 years of age have a declining health condition.

The opinion that can be concluded from the results above is that it is better for a woman to get pregnant between the ages of 20 - 35 years to avoid complications during childbirth such as a narrow pelvis and prolonged labor. If you are already pregnant at the age of < 20 years and > 35 years, you must be more intensive in pregnancy checks and screening for complications to anticipate complications during childbirth.

Relationship between Age and Old Birth

From the table above, it is known that the majority of respondents were aged 20-35 years and 16 people (53.3 %) did not have a long term labor. Based on the results of statistical tests using Chi Square calculations, it is known that the output above shows that the statistical test results for the Age and Prolonged Parturition variables are $0.002 < 0.05$, so it can be concluded that there is a relationship between maternal age and the incidence of prolonged parturition.

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Relationship between Gravidity and Prolonged Parturition

From the table above, it is known that the majority of respondents were multigravida and 15 people (50%) did not experience prolonged labor. The results of statistical tests using Chi Square calculations show that the output above shows that the statistical test results for the variables Age and the incidence of prolonged labor are $0.000 < 0.05$, so it can be concluded that there is a relationship between maternal gravidity and the incidence of prolonged labour.

Gravidity and parity are the number of times a woman is pregnant or has been (pregnant) and carried the pregnancy to a viable gestational age (parity). These terms are usually combined, sometimes with additional terms, to show more detail of a woman's obstetric history (Big Indonesian Dictionary, 2018). According to theory, Mochtar R, 2013, states that the greater the number of previous pregnancies, the higher the risk of a weak uterus due to weak uterine muscles which will result in prolonged labor. The results of this study are in accordance with previous research by Dzul Istiqomah Hasyim, et al, in 2014 which concluded that there was a significant relationship between maternal parity and the incidence of prolonged labor. There are some multigravida respondents who experience prolonged labor, perhaps this is caused by a entanglement in the umbilical cord. The entanglement of the umbilical cord causes the fetus's head to descend to the pelvic floor, causing prolonged labor.

Researchers are of the opinion that women of higher parity are at risk of experiencing prolonged labor due to the uterus experiencing weak uterine wall muscles due to previous pregnancies. Indications of weak rhim muscle walls can be seen in the mother's manifestations with a hanging stomach, hysteria abnormalities, bleeding, prolonged labor, position abnormalities and so on.

CONCLUSION

Of the 30 respondents in the Obstetrics Room of Viqueque City Regency Hospital, Timor Leste , more than half of the respondents (66.7%) were aged 20-35 years, namely 20 respondents, more than half (53.3%) were multigravida, namely 16 of respondents, more than half (60%) did not have a prolonged parturition, namely 18 respondents. The statistical test results for the variables Age and the incidence of prolonged parturition are $0.002 < 0.05$, so it can be concluded that there is a relationship between maternal age and the incidence of prolonged parturition. The statistical test results for the gravidity variable and the incidence of prolonged parturition are $0.000 < 0.05$, so it can be concluded that there is a relationship between maternal gravidity and the incidence of prolonged parturition.

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