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ANALYSIS OF FACTORS INFLUENCE THE LONGITUDE OF FIRST PERIODE

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ABSTRACT

Childbirth is a physiological thing, but in some cases of childbirth there are still factors that complicate things and cause complications during the birth process. The duration of the first stage of labor in parturient mothers is influenced by maternal, fetal and helper factors. The occurrence of problems with one of these factors can cause difficulties during labor, there by impacting the length of labor. This is very important and needs to be taken into account considering that several cases of maternal and infant deaths are due to not being detected early. The aim of this research is to analyze factors that influence the length of the first stage of labor.

This research is analytical research by processing secondary data using a case control approach. The population in this study was all mothers giving birth in January-December 2022 at the Sumber Glagah Regional Hospital totaling 130 people. The sampling technique uses total sampling. The statistical test used is the Spearman Rank test.

The results of the study showed that there was a relationship between the mother giving birth and the mother's age with a value of p: 0.005 (Odd Ratio=41), there was a relationship between pregnancy spacing and the first stage lengthened p: 0.004 (Odd Ratio=10), there was a relationship between parity and the first stage lengthened p : 0.004 (Odd Ratio=6), there is a relationship between the baby's weight and the first stage of prolongation p : 0.005 (Odd Ratio=45).

From the research results, it is hoped that health workers can pay attention to risk factors in pregnancy that influence the birthing process. Application of maternal care to speed up the birthing process

Keywords

Factors Influence The Longitude of First Periode

INTRODUCTION

Childbirth is the process of opening and thinning the cervix and the fetus descending into the birth canal, then ending with the expulsion of a term or living baby outside the womb, followed by the expulsion of the placenta and fetal membranes from the mother's body through the birth canal with or without help (the mother's own strength). Childbirth is considered normal if the process occurs at term (after 37 weeks) without complications (Sulfianti, 2020). Labor begins (inpartu) when the uterus contracts and causes changes in the cervix (opening and thinning) and ends with the

complete birth of the placenta. The mother is not in labor if uterine contractions do not cause changes in the cervix. Childbirth is a physiological thing, but in some cases of childbirth there are still factors that complicate things and cause complications during the birth process (Marmi, 2012). The incidence of complications is still quite high, namely 20% of the number of births, but the number of obstetric cases handled is still below 10%, still far from the target. According to the national Strategy for Making Pregnancy Safer (MPS) Indonesia 2001-2010, it is stated that the target for handling obstetric cases is at least 12% of the number of pregnant women or around 60% of the total cases of obstetric complications (Mochtar. R, 2011).

The duration of the first stage of labor in parturient mothers is influenced by maternal, fetal and helper factors. Maternal factors are influenced by power which comes from the mother's strength to push, the presence of uterine contractions and psychological factors in the form of assistance from the husband during childbirth. The influencing fetal factors come from the Passenger (fetus, amniotic fluid and placenta) and factors from the ability of birth attendants. If these factors are normal, physiological labor will occur. (Mochtar. R, 2011). One of the causes of the high maternal mortality rate (MMR) is problems in the delivery process, namely prolonged labor both in the 1st and 2nd stages. Based on data from the International NGO in Indonesian Development (INFID) in 2013, 5% of the number of maternal deaths in Indonesia was caused by prolonged labor (INFID, 2015).

Normally the first stage of labor starts with the opening of the cervix and contractions. occurs regularly and increases (frequency and strength) at least 2 times in 10 minutes. 40 seconds until the cervix can open completely. The results of a preliminary study conducted in December 2022 at Sumber Glagah Hospital, Mojokerto, showed that data on 669 mothers gave birth in 2020 and the 1st stage incidence was around 48 cases (7.2%). In 2021 there were 597 deliveries and the first stage was prolonged in around 40 cases (7.6%). The incidence of Stage 1 has increased from 2020 to 2021 by 8 cases. 1st Stage of Length at Sumber Glagah Hospital, Mojokerto, on average every month there are 4 to 5 cases of labor (Medical Record at Sumber Glagah Hospital, Mojokerto, 2022)

METHOD

The research used is analytical research design and uses a case control approach, namely observational analytical research. The research was conducted in the Maternity Room at Sumber Glagah Pacet Hospital - Mojokerto from January-December 2022. The respondents in this study were all mothers giving birth at Sumber Glagah Pacet Hospital - Mojokerto. This research uses secondary data, namely complete medical records of mothers who give birth. The number of respondents in this study was 130 people.. Data analysis uses univariate analysis and bivariate analysis. Ordinal data scale to describe each variable. The form of data presentation in univariate analysis uses data on length of labor. If the data is normally distributed then use the mean, median and standard deviation values, but if it is not normally distributed then use percentages. Bivariate analysis uses the Spearman Rank test to test the relationship between variables.

RESULTS

Table 1. Frequency Distribution of Respondents Based on Age and Length of First Stage of Labor.

Age	Lama Persalinan Kala I						
	Slow		Normal		Total	P value	OR 95% CI
	F	%	F	%			
Unhealthy Reproduction (<20 and >35 years)	1	16,7	103	83,1	104	0.05	41
Healthy Reproduction 20 - 35 years	5	83,3	21	16,9	26		
Amount	6		124		130		

Based on Table 1 above, it was found that 104 people of unhealthy reproductive age, of which 1 person had a slow birth time with a proportion of 16.7%, and 103 people had a normal birth time with a proportion of 83.1%. There were 21 people of healthy reproductive age, of which 5 people had slow labor with a proportion of 83.3%, and 21 people had fast labor with a proportion of 16.9%. Based on the Spearman Rank Test, the p value is: 0.005 (p value < 0.05, meaning that statistically there is a relationship between the mother's age and the length of the first stage of labor in the delivery room at Sumber Glagah Hospital, Mojokerto with an Odd Ratio (OR) value = 41, which means an unhealthy reproductive age. have a 41 times longer chance of being in the first stage of labor

Table 2. Frequency Distribution of Respondents Based on Pregnancy Distance and Length of Labor Period I.

Pregnant distance	Length of 1st stage of labor						
	Slow		Normal		Total	P value	OR 95% CI
	F	%	F	%			
Risk	1	16,7	118	95,2	119	0.002	10
Normal	5	83,3	6	4,8	11		
Amount	6		124		130		

Based on Table 2 above, it was found that the risk of pregnancy was 119 people, of which 1 person had a slow birth with a proportion of 16.7%, and 118 people had a normal birth with a proportion of 95.2%. The normal pregnancy interval was 21 people, of which 5 people had slow births with a proportion of 83.3%, and 6 people had fast births with a proportion of 4.8%. Based on the Spearman Rank Test, the p value is: 0.002 (p value < 0.05, meaning that statistically there is a relationship between the distance between pregnancies and the length of the first stage of labor in the delivery room at Sumber Glagah Hospital, Mojokerto with an Odd Ratio (OR) value = 10, which means that the distance between pregnancies that is at risk of having 10 times longer chance of 1st stage of labor

Table 3. Frequency Distribution of Respondents Based on Parity and Length of Labor Period I.

Paritas	Length of 1st stage of labor						
	Slow		Normal		Total	P value	OR 95% CI
	F	%	F	%			
Primipara	5	83,3	9	7,3	14	0.004	6
Multipara	1	16,7	115	92,7	116		
Amount	6		124		130		

Based on Table 3 above, it was found that the 14 primiparas, of which 5 people had slow labor with a proportion of 83.3%, and 9 people had normal labor with a proportion of 92.7%. There were 116 multiparous people, of which 1 person had a slow birth with a proportion of 16.7%, and 115 people had a fast birth with a proportion of 92.7%. Based on the Spearman Rank Test, the p value is: 0.004 (p value < 0.05, meaning that statistically there is a relationship between parity and the length of the first stage of labor in the delivery room at Sumber Glagah Hospital, Mojokerto with an Odd Ratio (OR) value = 6, which means that primary labor has a 6 times chance longer in the 1st stage of labor.

Table 4. Frequency Distribution of Respondents Based on Baby Weight and Duration First Stage of Labor.

BB Bayi	Lama Persalinan Kala I						
	Lambat		Normal		Total	P value	OR 95% CI
	F	%	F	%			
Tidak Normal	5	83,3	8	6,5	13	0.006	45
Normal	1	16,7	116	93,5	117		
Amount	6		124		130		

Based on Table 4 above, it was found that the baby's weight was 13, of which 5 had slow labor with a proportion of 83.3%, and 9 had normal labor with a proportion of 92.7%. There were 116 multiparous people, of which 1 person had a slow birth with a proportion of 16.7%, and 115 people had a fast birth with a proportion of 92.7%. Based on the Spearman Rank Test, the p value is: 0.006 (p value < 0.05, meaning that statistically there is a relationship between the baby's weight and the length of the first stage of labor in the delivery room at Sumber Glagah Hospital, Mojokerto with an Odd Ratio (OR) value = 45, which means the baby's weight is not normal has a 45 times longer chance of taking the first stage of labor.

DISCUSSION

The maternal mortality rate is the number of maternal deaths resulting from pregnancy, childbirth and postpartum processes which is used as an indicator of women's health status. Mortality rates can increase in line with risk factors and complications that occur during childbirth (Chuningham, 2013). There are several factors that can influence the length of the first stage of labor, including:

1. Mother Age

There were 104 people of unhealthy reproductive age, of which 1 person had a slow birth time with a proportion of 16.7%, and 103 people had a normal birth time with a proportion of 83.1%. There were 21 people of healthy reproductive age, of which 5 people had slow labor with a proportion of 83.3%, and 21 people had fast labor with a proportion of 16.9%. Based on the Spearman Rank Test, the p value is: 0.005 (p value < 0.05, meaning that statistically there is a relationship between the mother's age and the length of the first stage of labor in the delivery room at Sumber Glagah Hospital, Mojokerto. Incoordination of uterine contractions is a condition where the uterine muscle tone increases, also outside of the uterus. and the contractions do not take place as usual because there is no synchronization of the contractions of the parts. There is no coordination between the contractions of the upper, middle and lower parts causing the hys to be inefficient in opening (Saifuddin, 2010). Mother aged ≤ 20 years and ≥ 35 years in consider at risk of histology abnormalities. Age ≤ 20 years the body's hormonal response is not yet functioning optimally because the function of the reproductive system is not ready to accept pregnancy. Research by Pawzner concluded that labor induction increases in multiparous cases ≤ 20 years because the uterus is less ready for childbirth because the cervix immature. Age ≥ 35 years can cause hisocardial abnormalities due to a decline in the function and efficiency of spontaneous contractions of the myomametrium due to aging reproductive tissue, causing prolonged labor (Cunningham, 2013). The results of this study showed that 104 women gave birth in I in the delivery room at Sumber Glagah Hospital, Mojokerto, of unhealthy reproductive age, of which 1 person had a slow labor time with a proportion of 16.7%, and 103 people had a normal labor time with a proportion of 83.1%. . There were 21 people of healthy reproductive age, of which 5 people had slow labor with a proportion of 83.3%, and 21 people had fast labor with a proportion of 16.9%. The Odd Ratio (OR) value = 41, which means that those of unhealthy reproductive age have a 41 times longer chance of being in the 1st stage of labor.

2. Pregnant Distance

From the research results, it was found that the interval between pregnancies that were at risk, namely less than 2 years and more than 5 years, was 119 people, of which 1 person had a slow delivery time with a proportion of 16.7%, and 118 people had a normal birth time with a proportion of 95.2%. The normal pregnancy interval was 21 people, of which 5 people had slow births with a proportion of 83.3%, and 6 people had fast births with a proportion of 4.8%. Based on the Spearman Rank Test, the p value is: 0.002 (p value < 0.05, meaning that statistically there is a relationship between the distance between pregnancies and the length of the first stage of labor in the delivery room at Sumber Glagah Hospital, Mojokerto with an Odd Ratio (OR) value = 10, which means that the distance between pregnancies that is at risk of having 10 times longer chance of 1st stage of labor.

3. Paritas

From the research results, it was found that there were 14 primiparas, of which 5 people had slow labor with a proportion of 83.3%, and 9 people had normal labor with a proportion of 92.7%. There were 116 multiparous people, of which 1 person had a slow birth with a proportion of 16.7%, and 115 people had a fast birth with a proportion of 92.7%. Based on the Spearman Rank Test, the p value is: 0.004 (p value < 0.05, meaning that statistically there is a relationship between parity and the length of the first stage of labor in the delivery room at Sumber Glagah Hospital, Mojokerto with an Odd Ratio (OR) value = 6, which means that primary labor has 6 times the chance longer in stage 1 of labor. Parity is the total number of births of live babies (Widyatama, 2011). The number of children (parity) born also influences labor, parity 2-3 is the safest parity for pregnancy and childbirth, when viewed from the incidence of death maternal, high parity (more than 3 children) has a higher incidence rate than low parity (having 1 child) (Winkjosastro, 2011). An unpleasant birth experience will have an impact on subsequent births, whereas for women who experience pregnancy for the first time, Usually, before delivery, you will be haunted by images of pain during childbirth and unwarranted fears that make the mother anxious. The results of this research are in line with research conducted by Setyaningsih, 2017 which stated that there was a significant relationship between maternal parity, namely Primipara and Multipara, and the incidence of prolonged labor.

4. Baby Weight Factor

The results of the research showed that the weight of the babies was 13, of which 5 people had slow labor with a proportion of 83.3%, and 9 people had normal labor with a proportion of 92.7%. There were 116 multiparous people, of which 1 person had a slow birth with a proportion of 16.7%, and 115 people had a fast birth with a proportion of 92.7%. Based on the Spearman Rank Test, the p value is: 0.006 (p value < 0.05, meaning that statistically there is a relationship between the baby's weight and the length of the first stage of labor in the delivery room at Sumber Glagah Hospital, Mojokerto, the Odd Ratio (OR) value = 45, which means the baby's weight is not normal has a 45 times longer chance of labor in the 1st stage of labor. The results of this study are in line with research conducted by Astriana, Ratna Dewi Putri, 2015 which states that there is a relationship between a large fetus and prolonged labor. Macrosomia or a large fetus is when the body weight exceeds 4000 grams. Macrosomia can be caused by various factors including hereditary, a history of diabetes mellitus, a lifestyle that influences excessive weight gain (Cunningham, 2013). In a normal pelvis, a fetus weighing 2,500-4,000 grams generally does not cause difficulties in childbirth .A large baby can give a sign or warning of the possibility of a long labor due to difficult shoulder births (Mochtar, 2011).

CONCLUSIONS

Based on the results and discussion of research on Analysis of Factors Influencing the First Stage of Labor in the Maternity Room at Sumber Glagah Hospital, Mojokerto, it can be concluded that there is a relationship between age, gestational distance, parity and baby weight on the incidence of a prolonged first stage.

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