Relationship Maternal Characteristic (Parity and Age) With The Length of Time For Labor During The First and Second Stages of Labor at RSUD dr. R. Koesma Tuban

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ABSTRACT

One of the important social indicators to measure the success of maternal mortality eradication programs and to see the status of maternal health is the Maternal Mortality Rate (MMR). The results of the initial survey in 2019 were 184 who experienced periods I and II, while in 2020 there were 222 people. The purpose of this study was to determine the relationship between maternal characteristics (parity and age) with the length of time for labor during the first and second stages of labor at RSUD dr. R. Koesma Tuban. The research design used an analytical method with a cross-sectional research design. The population used was all mothers who gave birth in the maternity room at RSUD dr. R. Koesma Tuban in 2021 many 842 respondents, obtained a sample size of many 271 respondents. The sampling technique uses simple random sampling. Data collection uses secondary data, namely the independent and dependent variables. While the test used is chi-square with a significant level $\alpha = 0.05$. The results showed that almost all of the results of the study showed that the length of time of delivery for the first and second stages of the primiparous tended to give birth accordingly, whereas in multiparous and grade multi the delivery was appropriate. Based on the chi-square test, it was found that x2 count = 5.705 > x2 table = 3.841, then H0 was rejected H1 accepted This means that there is a relationship between maternal characteristics (parity and age) and the length of time for labor during the first and second stages of labor at RSUD dr. Koesma Tuban. From the research, it can be concluded that the characteristics of the mother (parity and age) can affect the length of time of stages I and II. One of the preventive efforts that can be done is to provide counseling about the ideal age for marriage, especially for women, regular antenatal examinations, counseling on family planning programs that can be used for married women under 20 years old and women over 35 years old.

Keywords: Parity, Age, Duration of labor

INTRODUCTION

Maternal Mortality Rate (MMR) is a parameter of the state of health, midwifery, and health services that reflect the socio-economic condition of a country and is still an important indicator to determine the degree of public health. The causes directly related to maternal mortality are complications in pregnancy, childbirth, and childbirth that are not handled properly and on time. And it is known that the most common causes of maternal death complications are infection, prolonged labor, eclampsia, bleeding, amniotic fluid embolism, surgical trauma, etc.[1]

According to the Indonesian Health Demographic Survey (IDHS) in 2007 the MMR was 228 / 100,000 live births. This figure is still far from the 2014 National Medium Term Development Plan (RPJMN) target of 118 / 100,000 live births and the MDGs target of 102 / 100,000 live births in 2015.[1] The cause of maternal death is dominated by the classic triad, namely bleeding (28%), eclampsia (24%) and this infection is the third cause of maternal death (11%). The cause of maternal death is 90% due to prolonged labor, bleeding, toxemia gravidarum, infection, and complications of abortion. Most of these deaths occurred around the time of birth which could have been prevented, while 10% were caused by other birth complications[2].

As described above, one of the causes of maternal death is prolonged labor or parts cases and is often referred to as difficult labor and is characterized by the too slow progress of labor due to a disproportion between the presentation of the fetus and delivery, or prolonged labor is labor that runs more of 24 hours for primigravidas and 18 hours for multigravidas.[3]

Based on data from the 2011 birth register in the delivery room RSUD dr. R. Koesma Tuban from 750 mothers gave birth to as many as 100 people (15.90%) with the duration of labor during the first and second stages, while in 2021, 160 out of 842 mothers gave birth (18.99%) with the duration of labor for the first and second stages. Meanwhile, seen from the characteristics of maternal mothers, it was found that primiparous 330 (39.24%), multiparous 512 (60.76%) and high-risk age 450 (53.18%), age was not high risk 392 (36.82%). It can be concluded that the incidence of the length of time of delivery during the first and second stages of labor in the RSUD.

Childbirth is a process that a mother awaits, therefore to help with childbirth, a skilled and skilled helper in the health sector is needed so that if complications occur in the delivery process, they can be handled immediately.[4]

Identification of the length of the labor period I and II include a prolonged latent phase, a prolonged active phase, a prolonged expulsive phase. The length of time of labor for the I and II stages is influenced by several factors. One of them is the age and parity factor. At the age of under 20 years, the uterus and pelvis often have not grown to adult size. As a result, pregnant women at that age may experience prolonged labor/traffic jams or other disturbances due to the mother's unpreparedness to accept her duties and responsibilities as parents. At the age of 35 years or more, the mother's health has deteriorated, as a result, pregnant women at that age are more likely to have children with disabilities, prolonged labor, and bleeding. The duration of labor for stages I and II was more common in the age

under 20 years and the age group over 35 years, because the age of the mother had a contribution to the occurrence of the duration of labor for stages I and II. The age of the mother who is too young or old is considered important. It determines the prognosis in childbirth because it can cause pain to both the mother and the fetus. [4]

Likewise, mothers with multiple parity or labor more than once tend to experience more duration of labor during the first and second stages of labor, because the more children and age are also too old, the mother's health has decreased, the pushing force has decreased, and she cannot endure the pain. so that he is inadequate, there will be a long period of labor for stages I and II, which is influenced by the power: his strength and straining (uterine inertia, uncoordinated his, fatigue, straining, faulty stage II), Passage: birth canal (pelvic deformities, pelvic tightness, cephalopelvic imbalance, soft birth canal abnormalities) and Passenger: (deformity and size of the fetus, abnormalities in the position of the head, fetal position abnormalities).[5]

With the harmful effects of the duration of labor for the first and second stages of labor, it is necessary to have an adequate implementation strategy in facing the length of time for labor for the first and second stages, including: midwives, namely providing information or counseling about the length of time of labor for the first and second stages and actions that must be taken immediately to the nearest health worker or the hospital if there is a labor that is not advanced, avoid infection by cleaning the vaginal area from front to back.

Based on the description above, the researcher wanted to find out more about the relationship between maternal characteristics (parity and age) and the incidence of the duration of labor during the first and second stages of labor in the delivery room at RSUD dr. R Koesma Tuban

METHOD

This research uses is correlational analysis because it intends to analyze the relationship between the research variables. The time approach used is cross-sectional, which is a type of research that emphasizes the time of measurement or observation of data on the independent and dependent variables only once at a time.

The population in this study were all mothers who gave birth in the delivery room at RSUD dr. R. Koesma Tuban, a total of 842 people were taken using the simple random sampling technique. Each selected number must be returned so that each sample has the same percentage chance of being sampled in the study. A total of 217 were sampled in the study.

A research instrument is a tool when researching a method. To collect data, researchers used data collection tools in the form of patient medical records. In this study, the researchers entered data on maternal characteristics (parity and age) and the length of time of delivery for the first and second stages of labor that had been scored into the frequency distribution table.

The data collected from the results of data collection is then carried out data processing. Where to look for the relationship between the independent and dependent variables, the SPSS version 16.0

program method is used. To find out the differences in these variables, a chi-square test was analyzed using the formula (x2) with a significance level of $\alpha = 0.05$. If the χ^2 count is more than the χ^2 table, it means that H1 is accepted, it means that there is a relationship between maternal characteristics (parity and age) with the length of time of labor for stage I and stage II.

With a significant value if χ 2 count is more than 2 table, then H0 is rejected and H1 is accepted, it means that there is a relationship between maternal characteristics (parity and age) and the length of time of labor during the first and second stages of labor at RSUD dr. R. Koesma.

RESULTS

Special Data

This section will present the results of the measured variable tabulation, including the following:

Incidence of parity of pregnant women in RSUD dr. R. Koesma Tuban

No.	Parity	f	%
1.	Primipara	113	41.7
2.	Multiparous	130	48
3.	Grandemultipara	2 8	10.3
	amount	271	100

Mean = 2 Mode = 2 Median = 2 Min = 1 Max = 6

Table 1 shows that in general, the total parity of mothers who gave birth was 2 with the smallest parity of mothers giving birth, 1 and the largest number of parity was 6, and it can be concluded that almost half (48%) of respondents who gave birth were multiparous mothers.

Incidence of age in mothers giving birth at RSUD dr. R. Koesma Tuban

No.	Age	f	%
1.	High-risk age (≤ 20 and ≥ 30 years)	80	29.5
2.	Low-risk age (20-30 years)	191	70.5
	amount	271	100

Mean = 26 Mode = 20 Median = 25 Min = 17 Max = 40

Table 2 shows that in general, the age of the birth mother is 26 years old with the youngest birth mother 17 years and aged mother maternity oldest is 40 years, and it can be concluded that the majority (57.94%) respondents, the mother who gave birth are the mother who is low risk.

Incidence of the length of time of the first and second stages of labor at RSUD dr. R. Koesma Tuban

No.	Period of Labor I and II	f	%
1.	Corresponding	132	48.7
2.	It doesn't fit	139	51.3
	amount	271	100

Mean = 10.1 Mode =13.5 Median = 10 Min = 3.5 Max= 17

Table 3 shows that in general, the duration of labor for the first stage and second stage of labor for mothers who gave birth was 10.1 hours with the duration of labor for the first stage and second stage for mothers who gave birth the fastest 3.5 hours and the length for the first stage of labor for mothers who gave birth was the longest, namely 17 hours, and it can be concluded that half (57.20%) of respondents experienced a long time stage labor I and II are not normal.

Relationship between parity and duration of labor during the first and second stages of delivery in mothers who gave birth at RSUD dr. R. Koesma Tuban

Parity	The length of time of labor for the I and II stages		Total
	Corresponding	It doesn't fit	
Primipara	82 (72.6 %)	31 (27.4 %)	113 (100%)
Multiparous	48 (36.9 %)	82 (63.1 %)	130 (100%)
Grandemultipara	2 (7.1 %)	26 (92.9 %)	28 (100%)
amount	132 (48.7 %)	139 (51.3 %)	271 (100%)

Table 4 shows that the length of time the first and second stages of labor is normal in primiparous by 72.6% higher compared with multiparous mothers of 36.9% and mother grand multipara amounted to 7.1 %. While the length of time the first and second stage of labor is not normally present in grand multipara by 92.9% higher compared with multiparous mothers of 63.1% and primiparous mothers of 27.4%. Thus, the duration of labor for the first and second stages of primiparous mothers was more normal than grand multipara mothers.

Relationship between age and duration of labor during the first and second stages of delivery in mothers who gave birth at RSUD dr. R. Koesma Tuban

Mother's Age	The length of time of labor for the I and II stages		Total
	Corresponding	It is not by	
High Risk Age (≤ 20 and ≥ 35 years	30 (37.5%)	50 (62.5%)	80 (100%)
Low Risk Age (20-30 years)	102 (53.4%)	89 (46.6%)	191 (100%)
Amount	132 (48.7%)	139 (51.3%)	271 (100%)

Source: Secondary data 2021

The table shows that the delivery time for stages I and II was normal for mothers with low receipt   age of 53.4 %,   higher   than   for   mothers   with high-risk   age,

which was 37.5 %. Meanwhile, the length of time for labor during the first and second stages of labor was not normal for mothers with high-risk ages, 62.5% higher than those with low-risk ages, which were 46.6%. Thus, the length of time for delivery during the first and second stages of delivery in mothers, at high-risk ages, the tendency to give birth is not suitable compared to the age of the mother at low risk of giving birth accordingly.

DISCUSSION

Identification of Maternal Parity

Based on table 1, shows that in general, the number of parity of mothers who gave birth was 2 with the smallest parity number of mothers giving birth, namely 1 and the largest number of parity, namely 6, and it can be concluded that almost half (48%) of respondents who gave birth were multiparous mothers.

Parity is the number of children born to the mother. Until the parity of three, the mother's uterus can return to what it was before pregnancy. Every pregnancy the uterus is enlarged, stretching the uterine muscles during the 9 months of pregnancy. As a result of this stretch, the elasticity of the uterine muscles does not return to what they were before pregnancy after childbirth. The more frequent pregnant women are and giving birth, the closer the pregnancy and birth are, the more impaired the elasticity of the uterus is, as a result, the uterus does not contract completely and results in post-pregnancy bleeding.[6]

From the results of the above research, it can be said that pregnancy too often will affect the embryogenesis process so that the formed amniotic membrane will be thinner which will cause the membranes to rupture before there are signs of infertility, multiparous is a woman who has given birth to a child more than once. So that the mother has not been able to adjust the spacing of the child's birth. This is because mothers do not understand the high risk of pregnant women with parity of children more than once and have not been able to determine the number of children properly. It can be seen from the labor register data that mothers have not been able to manage the number of children properly.

Identification of Maternal Age

Table 2 shows that in general, the age of mothers who gave birth was 26 years old, the youngest mother gave birth is 17 years old and the oldest mother gave birth is 40 years old, and it can be concluded that the majority (57.94%) of respondents, namely mothers who gave birth were mothers who were at the age of birth. low risk.

Maternal age is one of the risk factors related to the quality of pregnancy or related to the readiness of the mother for reproduction. Age less than 20 years, reproductive organs are immature, so that complications of childbirth often arise. Age more than 35 years is associated with the initiation of regression of body cells, especially in this case is the endometrium.[7]

From the results of the above study, most of the mothers giving birth at RSUD dr. R. Koesma Tuban were women with high-risk ages (≤ 20 and ≥ 35 years). best for getting pregnant. this is because the mother does not know the ideal gestational age.

Identification of the length of time of delivery for the first and second stages of labor to the mother

Table 3 shows that in general, the duration of labor for the first stage and second stage of labor for mothers who gave birth was 10.1 hours with the duration of labor for the first stage and second stage for mothers who gave birth the fastest 3.5 hours and the length for the first stage of labor for mothers who gave birth was the longest, namely 17 hours, and it can be concluded that half (57.20%) of the respondents experienced an abnormal length of time for labor during the first and second stages.

Childbirth is the process of spending products of conception, which can live, from the uterus through the vagina into the world outside.[1]

The length of labor is not easy to determine precisely because the onset of labor is often unclear and subjective. In studies of women, whose labor began spontaneously, there was wide variation for length per copy. The first stage starts from the time of labor to the complete opening (10 cm). This process is divided into 2 phases, the latent phase (8 hours) the cervix opens up to 3 cm and the active phase (7 hours) the cervix opens from 3 to 10 cm. The contractions are stronger and more frequent during the active phase Kala II.[8]

However, the cause is still unknown and can not be determined with certainty. Some reports mention factors that are closely related to the duration of labor during the first and second stages of labor, for example, parity. The length of time of delivery during the first and second stages of labor often has consequences that can cause morbidity and mortality to both mother and baby, especially perinatal mortality which is quite high. This high perinatal mortality is due, among others, due to lack of months, and the increased incidence of infection due to underdeveloped labor, prolonged labor, and artificial labor, which are often found in case management.

Based on the results of research in the Maternity Room dr. R. Koesma Tuban Hospital to retrieve data through the labor status register, get a general picture of experiencing Old Time duration of labor for the first and second stages of labor are 271 people with the Old Time duration of labor for the first and second stages of labor 155. maternity, which is caused by factors parity and age factor. However, this study only examined the relationship between parity and age.

Parity Relations d en gan Old-time the first and second stage of labor

Based on the results of the study using *Chi-Square* analysis between the parity variable and the duration of labor for the first and second stages of labor, the results obtained x^2 counts 52.336 and x^2 tables 5.991 so that x^2 counts $> x^2$ tables, it is obtained that H_1 is accepted, meaning that there is a relationship between parity with the Old-time the first and second Stage of Labor on birth mothers in Maternity Room RSUD dr. R. Koesma Tuban.

The length of labor is not easy to determine precisely because the onset of labor is often unclear and subjective. In studies of women, whose labor began spontaneously, there was a wide variation for length per copy. It is claimed that the parity (multi/grande multiparous) were factors in the umu m the Old Stage of Labor Time the first and second. While parity is one of the factors that lead to the Old Stage of Labor Time the first and second because the increased parity enables cervical damage during the birth process resentful.[9]

Parity is the number of children a mother has ever had. High parity will have an impact on the emergence of health problems that may arise due to high parity. so that mothers with parity of more than 1 child are at risk of 2 times giving birth to the duration of labor for the first and second stages.

Parity is one of the factors that affect Old Time's duration of labor for the first and second stages of labor, factor parity, divided me njadi primiparous, multiparous, and grand multipara. One of the health effects that may arise due to high parity is related to the duration of the first and second stages of delivery. Parity is one of the significant factors on the incidence of Old Time duration of labor for the first and second stages of labor, as well as the distance birth are too close to be tended more experienced Old Time duration of labor for the first and second stages of labor since the network pelvis and muscles also weakened because of frequent occupied and passed by the fetus. believed to be more at risk of premature rupture of membranes in subsequent pregnancies.[10]

In this study, it can be seen that there is a relationship between parity and the incidence of the duration of the first and second stages of labor. The higher the parity (multiparity), the

greater the chance for the duration of the first and second stages of delivery. This is caused by excess uterine motility, hanging belly, reduced flexibility in the cervix so that there can be the premature opening of the cervix, previous pregnancies, and birth spacing that is too close which results in the duration of labor during the first and second stages of labor.

Relationship Age With Old Time Duration Of Labor For The First And Second Stages Of Labor

Based on the results of research using analysis *Chi-Square* between the variables of age with the incidence of Old Time the duration of the first and second stages of labor, the result x^2 count 5.708 and x^2 tables 3,841, so x^2 count $> x^2$ table then obtained H_1 accepted means there relationship between the age of the Old-time Duration of labor for the first and second stages of labor, the birth mothers in Maternity Room dr. R. Koesma Tuban Hospital.

Age is the length of time there has lived or existed in the world (since birth or was held). There are still many marriages, pregnancies, and childbirth outside the healthy reproductive period, especially at a young age.

One of the factors that affect the duration of labor for the first and second stages of labor is age (at high-risk ages, namely too young and too old, most of whom will experience the duration of labor for the first and second stages of labor, because at a young age the uterus is less mature. to give birth so that it is prone to experience the duration of labor during the first and second stages of labor and increasing age also causes the condition and function of the uterus to decline, one of the consequences is the jaw tissue that is no longer fertile.

Age is one of the factors that cause the duration of labor for the first and second stages of labor, where the highest incidence of the duration of labor for the first and second stages is under 20 years of age, and those who are more than 30 years old. While the lowest incidence is at the age of the mother between 20-30 years.

In this study may know that there Relationship between age and the Old Stage the duration of labor for the first and second stages of labor of the mother giving birth at Maternity Room RSUD dr. R. Koesma Tuban.

Increasingly too young and too old age (≤ 20 and ≥ 35 years), the greater the risk of the occurrence of the Old Time the duration of labor for the first and second stages of labor, this is caused by gestational age less than 20 years can cause problems because the physical condition is not 100% ready. It could be that a woman is not mentally ready yet. including the age that is too young with the uterus that is not mature enough to give birth so that it is prone to

experiencing the first and second stages of labor and increasing age also makes the condition and function of the uterus decrease. One result is the uterine tissue that is no longer fertile, as well as the pelvic cavity tissue and muscles that weaken with age. This makes it difficult for the pelvic cavity to deal with and deal with serious complications, such as bleeding. In certain circumstances, the hormonal condition is not as optimal as the previous age.

CONCLUSIONS AND SUGGESTION

The role of good parents can improve the ability to recognize the concept of numbers in early childhood, the use of manipulative media cannot increase the ability to recognize the concept of numbers in early childhood, the role of parents and the use of manipulative media together can improve the ability to recognize the concept of numbers in children early age.

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