


# Overview of Age and Parity with the Incidence of Placental Retention in Pregnant Women at Dumai City Hospital, Dumai District, Dumai City in 2023

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Article Info	ABSTRACT
<b>Keywords:</b> Age of Maternity Mother, Parity Placental Retention.	This study aims to analyze the relationship between age and parity with the incidence of placental retention in pregnant women at Dumai City Hospital, Dumai District, in 2023. The method used in this study was a descriptive design with a survey approach, where data were collected through questionnaires and analyzed using the chi-square test to determine the relationship between variables. The results showed that out of 35 respondents, 14 people (40.0%) experienced placental retention. Further analysis revealed that the incidence of placental retention was higher in the age group above 35 years with p-value = 0.007, as well as in women with multiparous parity with p-value = 0.001. These findings indicate a significant association between age and parity with the incidence of placental retention. The implications of the results of this study are important for clinical practice, where health workers, especially midwives, need to improve understanding and management of the risk of placental retention, as well as provide better education to pregnant women regarding factors that can affect their health during pregnancy and childbirth.
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## INTRODUCTION

Placental retention is a condition where the placenta does not exit the uterus within 30 minutes after delivery, which can lead to serious postpartum hemorrhage. In Indonesia, data from the Ministry of Health shows that the prevalence of placenta retention ranges from 2-5% of total births, with the incidence rate tending to increase in recent years. According to a WHO report, in 2017, approximately 295,000 women died from complications of pregnancy and childbirth, of which placental retention contributed significantly to the maternal mortality rate. These complications are not only life-threatening for the mother, but can also cause long-term impacts on her reproductive health and mental well-being. Therefore, a deeper understanding of the factors that contribute to the incidence of placental retention is crucial to improving maternal health in Indonesia. According to the World Health Organization (WHO), in 2017 around 810 maternal mortality rates (MMR) at the end of the year reached 295,000 out of 94% in developing countries. In 2018 the infant mortality rate (AKB) was around 18 deaths per 100,000 live births (KH), the high number of AKI and AKB was caused

by pregnancy and childbirth complications. (UNICEF, 2019). In 2019, the most common cause of maternal death was caused by bleeding where there were 1,280 cases of bleeding, hypertension in pregnancy as many as 1,066 cases, and caused by infection as many as 207 cases. Placental retention is one of the factors that directly cause postpartum maternal bleeding. It is reported that approximately 15-20% of maternal mortality is caused by placental retention and the incidence is 0.8-1.2% for each birth (Manuaba, 2019). The maternal mortality rate (MMR) from 2018 to 2019 has decreased although insignificantly from 4,226/100,000 live births. In 2019, the most causes of maternal mortality were caused by bleeding where there were 1,280 cases of bleeding, hypertension in pregnancy as many as 1,066 cases, and caused by infection, which was 207 cases (Ministry of Health of the Republic of Indonesia, 2020).

The maternal mortality rate (MMR) in Indonesia is a benchmark for the success of midwifery services. Based on the 2017 Indonesia Demographic and Health Survey (SDKI), AKI reached 305 per 10,000 live births with a total of 14,623 cases. The most common cause of maternal death is preclution and bleeding. The infant mortality rate (AKB) was recorded at 24 per 1,000 live births with a total of 151,200 cases. The most common cause of infant mortality is due to low birth weight infants (BBLR) and asphyxia (Ministry of Health of the Republic of Indonesia, 2017). According to the Indonesian Ministry of Health, the direct causes of maternal mortality in Indonesia related to pregnancy and childbirth are mainly such as bleeding 28% because of other causes such as eclampsia 24%, infection 11%, long partus 5%, and abortion 5%. According to the Central Statistics Agency (BPS), the average maternal mortality rate (MMR) in the world in 2019 was caused by bleeding of 80% and in Indonesia itself by 40-60%, including placental retention of 16-17%, preeclampsia of 12%, birth canal infection 20-30%, placental remainder, birth canal laceration 4-5% (Ministry of Health, 2019).

Based on Riau's health profile, it was reported in 2017 that the number of maternal deaths was recorded at 205 deaths, lower than the data recorded in 2016 which was 239 deaths. The highest number of maternal deaths in 2017 was recorded in Labuhan Batu Regency and Deli Serdang Regency with 15 deaths, followed by Batu Bara district with 11 deaths, the lowest in 2017 was recorded in Pematang Siantar City and Gunung Sitoli with 1 death each. If the number of maternal deaths is converted to the maternal mortality rate, then the AKI in North Sumatra is 85/100,000 live births (North Sumatra Health Office, 2018). According to the Riau Provincial Health Office, the main cause of maternal death has not been in a special survey, but nationally it is caused by childbirth complications (45%), placental retention (20%), birth canal tears (19%), old partus (11%), bleeding and eclampsia each (10%), complications during postpartum (5%), and puerperal fever (4%). Placental retention is the cause of most cases of postpartum hemorrhage while postpartum hemorrhage is the cause of the most maternal deaths in Indonesia. Placental retention is the retention or unborn of the placenta up to or beyond 30 minutes after the baby is born, a few minutes after the placenta release process begins with a little.

The results of the family health program recording at the Ministry of Health experienced a comparison of the number of maternal deaths from 2017 to 2018. Where in 2017 the maternal mortality rate was 4,221 deaths while in 2018 the number of maternal deaths increased by 4,627 deaths in Indonesia. And in 2019 maternal mortality in Indonesia

decreased from 390 to 305 per 100,000 live births. Although it tends to decline, it has not succeeded in achieving the MDGs target. In 2015, the MDGs targeted a maternal mortality rate of 102 deaths per 100,000 births (Ministry of Health of the Republic of Indonesia, 2021). Factors that are very influential can cause placental retention include, errors during active management phase III, careless removal of the placenta so that it can cause the placenta to be left in the uterus. In addition, maternal age, parity, and anemia are also risk factors that play a major role in the incidence of placental retention on the pregnancy and childbirth process of a mother. When the maternal mortality rate in Indonesia reached 228, the maternal mortality rate in Singapore was only 6 per 100,000 live births, Brunei 33 per 100,000 live births, Philippines 12 per 100,000 live births, Malaysia and Viet Nam are equal to 160 per 100,000 live births (Department of the Ministry of Health of the Republic of Indonesia, 2018). Bleeding is the number one cause of death (28%) in Indonesia. Bleeding in the mother after childbirth can be caused by placental retention. Placental retention is a condition in which the placenta has not been born half an hour after the fetus is born (Wiknjosastro, 2019). Placental retention is the leading cause of postpartum hemorrhage cases while postpartum hemorrhage is the leading cause of maternal mortality in Indonesia. Placental retention is the retention or unbirth of the placenta up to or beyond 30 minutes after the baby is born, a few minutes after the placenta release process begins accompanied by a little bleeding. When the placenta has come loose and descends to the lower part of the uterus, the uterus will contract to remove the placenta. Factors that affect the incidence of placental retention in pregnant women are age, multiparity, history of pregnancy, and previous childbirth (Budiman and Maya Sari, 2019).

Although there have been studies that address placental retention, there is still a gap in understanding how demographic factors such as age and parity specifically affect the incidence of placental retention in Dumai. This study is important to fill this gap and provide relevant data for health workers in the prevention and management of placental retention. By understanding the factors that contribute to this incidence, it is hoped that more effective measures can be taken to improve maternal health and reduce maternal mortality in Indonesia..

## METHODS

Childbirth is the process of producing the results of conception (the fetus and placenta that are full-term or can live outside the womb through the birth canal or through other means), with or without assistance (own strength). (Manuaba, 2020). Spontaneous childbirth is childbirth that takes place with the mother's strength through her birth canal. Artificial childbirth is a childbirth process that is assisted by energy from outside or apart from the mother who will give birth. The force in question is for example the extraction of forceps, or when a section caesarean section is performed. In contrast to childbirth, the recommendation is that the labor process does not begin with the usual process, but only takes place after the breakdown of the membranes, the administration of pitocin, or prostaglandins. The following are some terms related to childbirth:

1. Abortion, that is, the process of removing pregnancy fruit before the gestational age reaches 22 weeks or the baby weighs less than 500 grams.

2. Partus immaturus, that is, the process of removing pregnancy fruit when the gestational age is between 22 weeks to 28 weeks or the baby is in a condition of weighing between 500 grams to 999 grams.
3. Partus prematurus, that is, the process of removing pregnancy fruit when the gestational age is between 28 weeks to 37 weeks or the baby's weight is between 1000 grams to 2499 grams.
4. Partus maturus or a'terma, that is, the process of removing pregnancy fruit when the gestational age is between 37 weeks to 42 weeks or the baby is in a condition of weighing 2500 grams or more.

## Placenta

The placenta is an organ that functions respiration, nutrition, excretion, and hormone production. The placenta is a unique endocrine organ and is the largest endocrine organ in humans that produces a wide variety of steroid hormones, peptides, growth factors and cytokines. The placenta is an important part of pregnancy and has a role in the form of transporting substances from the mother to the fetus, producing hormones that are useful during pregnancy, and as a barrier, so if there is an abnormality in the placenta, it will cause abnormalities in the fetus or interfere with the delivery process.

## Placental Retention

Placental retention is the delay in the birth of the placenta for half an hour after the birth of the baby. In some cases, placental retention can occur. The placenta must be removed because it can cause a danger of bleeding, infection because as an inanimate object, placental polyps can occur and malignant degeneration of the korio carcinoma occurs. When a part of the placenta (one or more lobes) is left behind, the uterus cannot contract effectively and this condition can cause bleeding. Symptoms and signs that can be encountered are immediate bleeding, uterine contraction but fundus height does not decrease. (Manuaba, 2019). The placenta is held if it is not delivered within 30 minutes after the fetus is born. The placenta may be detached at the edge trapped by the cervix, partially detached, pathologically attached (placenta accreta, increta, percutaneous) (David, 2019). Placental retention is a placenta that does not separate and causes invisible hemorrhage, and is also based on the length of time that elapses between the birth of the baby and the expected release of the placenta. Some clinicians handle after 5 minutes. Most midwives will wait an hour and a half for the placenta to come out before calling it incontaminating (Varney's, 2017). Functionally it can occur because it is not strong (the most important cause), and the placenta is difficult to remove due to its location (insertion in the angle of the fallopian tube), its shape (placenta membranase, placenta anularis), and its size (very small placenta). The placenta that is difficult to remove due to the above causes is called placenta adhesive.

**Table 1.** Images and Alleged Causes of Placental Retention

Symptom	Segregation/Akreta Partial	Placenta Inkarserata	Placenta Akreta
Uterine consistency	Supple	Hard	Enough
High Fundus	Secentric	2 central bottom fingers	Secentric
Uterus Shape	Diskoid	Somewhat globule	Diskoid

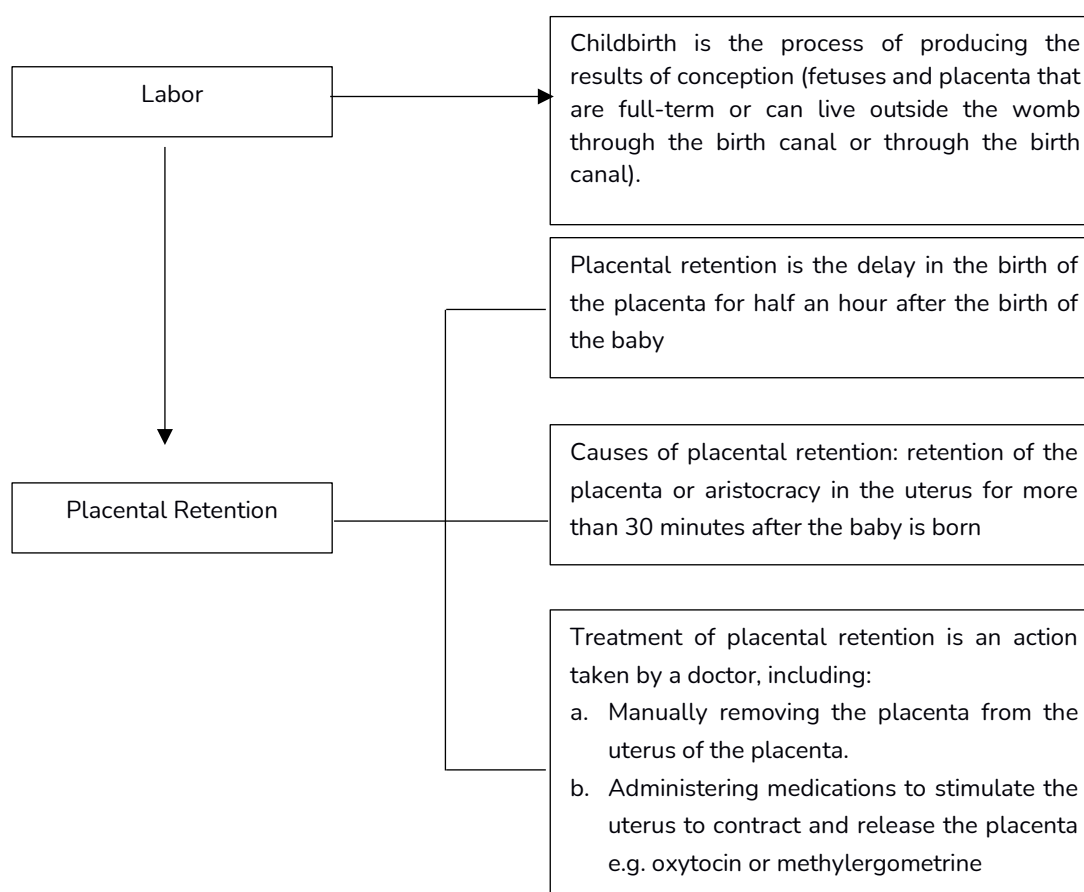
Bleeding	Medium-high	Keep	Little/none
Umbilical cord	Partially extended	Sticking Out	Not protruding
Ostium uteri	Open	Contraband	Open
Placental separation	Partially removed	It's past	Stick entirely
Circulatory shock	Often	Infrequently	Rarely

### Relationship between Age and Parity with the Incidence of Placental Retention

Age/Age of the mother is one of the factors that affect the health status of the mother during pregnancy. Pregnant women with a relatively easy age or conversely too old tend to be more prone to health complications compared to mothers with a healthy reproductive period, namely 20-35 years. In relation to placental retention, it is said that the incidence of placental retention is more common in young mothers or pregnant women with primigravida over 35 years old. so that to meet the nutritional needs of the fetus, a wider placenta growth is needed.

### Theoretical Framework

The theoretical framework is the support of the theoretical basis as the basis of thinking in the context of solving problems faced by researchers (Safii, 2021).



**Figure 1.** Theoretical Framework (Source: David, 2019)

## Hypothesis

A hypothesis is a provisional answer to a problem formulation or a research statement (Nursalam, 2017). Types of hypotheses:

1. Working hypothesis or Alternative hypothesis ( $H_a$ )

A work hypothesis is a formulation with the aim of making a prediction about the events that will occur if a symptom appears. This hypothesis is often also called the Alternative hypothesis in it (Lutfiana, 2018). The hypotheses in this study are as follows:

$H_a$ : There is an Overview of Age and Parity with the incidence of Placental Retention in Maternity at Dumai City Hospital, Dumai District, Dumai City in 2023.

2. Hypocrisy Zero ( $H_0$ )

The null hypothesis, which was introduced by Mr. Fisher Statistician, was formulated to be rejected after testing. In other words, the null hypothesis is made to state something similar or the absence of a meaningful difference between two or more groups regarding a matter in question (Lutfiana, 2018).

$H_0$ : There is no picture of age and parity with the incidence of Placental Retention in Pregnant Women at Dumai City Hospital, Dumai District, Dumai City in 2023.

## RESULTS AND DISCUSSION

The results of the research and discussion of the relationship between age and parity with the incidence of placental retention at the Dumai City Hospital, Dumai District, Dumai City in 2023. This research has been carried out from May to June 2023 with a total of 35 respondents.

### Univariate Analysis

The characteristics of the respondents in the study including age, parity, knowledge, and the incidence of placental retention can be explained in the following table:

**Table 2.** Frequency Distribution of Respondents by Age

No	Age	Frequency	Percentage (%)
1	≤ 20 year	5	14,3
2	21 – 35 year	21	60,0
3	>35 year	9	25,7
Sum		35	100,0

Based on the table above, it can be seen that the most respondents are 21-35 years old, which is 21 people (60.0%) and the least respondents have the age of ≤ 20 years as many as 5 people (14.3%).

**Table 3.** Respondent Frequency Distribution by Parity

No	Parity	Frequency	Percentage (%)
1	Primipara	9	25,7
2	Scundipara	15	42,9
3	Multipara	8	22,9

4	Grandemultipara	3	8,6
<b>Jumlah</b>		<b>35</b>	<b>100,0</b>

Based on the table above, it can be seen that the most respondents with scundipara parity were 15 people (42.9%) and the least respondents with grandemultipara parity were 3 people (8.6%).

**Table 4.** Frequency Distribution of Respondents Based on Knowledge

No	Knowledge	Frequency	Percentage (%)
1	Good	7	20,0
2	Enough	16	45,7
3	Less	12	34,3
<b>Sum</b>		<b>35</b>	<b>100,0</b>

Based on the table above, it can be seen that the most respondents have sufficient knowledge, namely 16 people (45.7%) and the least respondents have good knowledge as many as 7 people (20.0%).

**Table 5.** Distribution of Placental Retention Incidence Frequency

No	Incidence of Placental Retention	Frequency	Percentage (%)
1	Experience	14	40,0
2	Not Experiencing	21	60,0
<b>Sum</b>		<b>35</b>	<b>100,0</b>

Based on the table above, it can be seen that the respondents who experienced the incidence of placental retention were 14 people (40.0%), while the respondents who did not experience the event of placental retention were 21 people (60.0%).

### Bivariate Analysis

To test the relationship between independent variables including age, parity with dependent variables, namely placental retention events by bivariate analysis using a test chi-square with  $\alpha=0,05$  which is described as follows:

The relationship between age and the incidence of placental retention in pregnant women at Dumai City Hospital, Dumai District, Dumai City in 2023 based on age can be seen in the following table:

**Table 6.** Results of Age Relationship Analysis with the Incidence of Placental Retention in Pregnant Women

No	Age (year)	Incidence of Retention Placenta				Total		p-value
		Experience		Not Experience				
		f	%	f	%	f	%	
		1	≤ 20 year	3	8,6	2	5,7	

2	21 – 35 year	4	11,4	17	48,6	21	60,0	0,007
3	>35 year	7	20,0	2	5,7	9	25,7	
	Total	14	40,0	21	60,0	35	100,0	

Based on the table, it shows that of the 21 respondents aged 21-35 years who experienced placental retention, 4 respondents (11.4%) and 17 respondents (48.6%) did not experience placental retention, out of 5 respondents who were less than 20 years old who experienced placental retention as many as 3 respondents (8.6%), while of 9 respondents aged >35 years who experienced placental retention as many as 7 respondents (20.0%). The results of the chi square statistical test can be seen p value = 0.007, where the p value <  $\alpha$  (0.05), then the hypothesis is accepted, so it can be concluded that there is a relationship between age and the incidence of placental retention in pregnant women at Dumai City Hospital, Dumai District, Dumai City in 2023.

The relationship between parity and the incidence of placental retention in pregnant women at Dumai City Hospital, Dumai District, Dumai City in 2023 can be seen in the following table:

**Table 7.** Results of Parity Relationship Analysis with the Incidence of Placental Retention in Pregnant Women

Pregnant Women								
No	eParity	Incidence of Retention Placenta				Total		p-value
		Experience		Not Experience				
		f	%	f	%	f	%	
		1	Primipara	4	11,4	5	14,3	
2	Scundipara	1	2,9	14	40,0	15	42,9	
3	Multipara	6	17,1	2	5,7	8	22,9	
4	Grandemultipara	3	8,6	0	0,0	3	8,6	
Total		14	40,0	21	60,0	35	100,0	

Based on the table, it shows that of the 9 respondents with primipara parity, the majority experienced placental retention as many as 4 respondents (11.4%), 15 respondents with scundipara parity experienced placental retention as many as 1 respondent (2.9%), out of 5 respondents with multipara majority, 6 respondents (17.1%) experienced placental retention and 3 respondents with grande multipara experienced placental retention as many as 3 respondents (8.6%). From the results of the statistical test, it can be seen that p value = 0.001, where the p value is <  $\alpha$  (0.05), then the hypothesis is accepted, so it can be concluded that there is a relationship between parity and the incidence of placental retention in pregnant women at Dumai City Hospital, Dumai District, Dumai City in 2023.

#### Overview of Age with the Incidence of Placental Retention in Maternity

Based on the results of a study of 35 mothers giving birth at Dumai City Hospital, Dumai District, Dumai City, the majority are 21-35 years old compared to  $\leq 20$  and >35 years old. According to Saifuddin, the age is divided into 3 namely the age of  $\leq 20$  years, the age of 21-



35 years and the age of >35 years. Although the age of 21-35 years is said to be a healthy reproductive period, it is possible to have placental retention complications during childbirth, although it is not as high as the risk at  $\leq 20$  years and >35 years. This is because at the age of  $\leq 20$  years the reproductive organs cannot function properly, the myometrium cannot contract and retract optimally, the process of releasing the placenta from the place of implantation is also disrupted, which eventually causes placental retention. As for >35 years old, they often experience tissue stiffness so that the myometrium cannot work optimally. Based on the results of cross-tabulation between age and the incidence of placental retention, it was known that most of the respondents aged 20-35 years were 23 people (65.7%) and experienced the incidence of placental retention as many as 5 people (14.3%). From the results of the statistical test, it can be seen that  $p \text{ value} = 0.006$ , where  $p \text{ value} < \alpha (0,05)$ , The hypothesis is accepted, so it can be concluded that there is a relationship between age and the incidence of placental retention in pregnant women at Dumai City Hospital, Dumai District, Dumai City in 2023. There are many health risks that threaten if a woman marries before the age of 20 when her reproductive organs are not strong enough to have sex or give birth (Riska, 2016). As the mother ages, there will be a progressive regression of the endometrium so that to meet the nutritional needs of the fetus, a wider placenta growth is needed (Nikilah, 2015). The incidence of placental retention should indeed occur at an older age. Based on research in the field, respondents aged 21-35 years have many placental retention because at that age the condition of the female reproductive organs is mature enough to give birth so that the risks of childbirth such as placental retention can be suppressed. To prevent this from happening, midwives should be more aware of mothers who want to give birth to their fourth or more children, especially for the administration of oxytocin is needed immediately after delivery 1 minute, so that the uterus can contract properly. The results of this study are in accordance with the theory that the reproductive organs cannot function properly, the myometrium cannot contract and retract optimally, so the process of releasing the placenta from the place of implantation is also disturbed, which eventually causes placental retention. Meanwhile, >35 years old often experience tissue stiffness so that the myometrium cannot work optimally (Saifuddin Dalam Euphrasia, 2012). The results of the study are in line with those conducted by Sari, et al. (2014) Regarding the relationship between age, parity, and active management in phase III with the incidence of placental retention at Tamiang Layang Hospital in 2013 stated that some of the mothers who experienced placental retention events were 58.2%. Hypothesis testing yields results  $p \text{ value} = 0,027$  ( $p > 0,05$ ). According to researchers from the results of the research that has been carried out, mothers who give birth at risk age do experience more cases of placental retention compared to the age of mothers who are not at risk, this can be caused by the factor of low maternal education level, so that mothers' knowledge about healthy reproductive age, pregnancy and childbirth is poorly understood. And mothers also lack understanding about the importance of regular check-ups during pregnancy.

### **Overview of Parity with the Incidence of Placental Retention in Pregnant Women**

Based on the results of the study, it was shown that of the 9 respondents with primipara parity, the majority experienced placental retention as many as 4 respondents (11.4%), 15 respondents with scundipara parity experienced placental retention as many as 1 respondent

(2.9%), out of 5 respondents with multipara majority experienced placental retention as many as 6 respondents (17.1%) and 3 respondents with grande multipara experienced placental retention as many as 3 respondents (8.6%). From the results of the statistical test, it can be seen that  $p \text{ value} = 0.001$ , where the  $p \text{ value} < \alpha (0.05)$ , then the hypothesis is accepted, so it can be concluded that there is a relationship between parity and the incidence of placental retention in pregnant women at Dumai City Hospital, Dumai District, Dumai City in 2023. Parity is the number of live births that a woman has (BKKBN, 2016), while according to JHPIEGO (2016) it is a pregnancy that produces a fetus that is able to live outside the womb (28 weeks), and according to Manuaba (2016) is a woman who has given birth to a term baby. Parity has an influence on the incidence of postpartum bleeding because in every pregnancy and childbirth there is a change in muscle fibers in the uterus which can reduce the ability of the uterus to contract, making it difficult to compress the blood vessels that open after the release of the placenta. The risk of occurrence will increase after the third or more delivery which results in postpartum bleeding (Saifuddin, 2015). Placental retention is the retention or unfulfilment of the placenta until or half an hour after the baby is born (Saifuddin, 2016). According to Manuaba (2015), predisposing factors for placental retention include: grandemultiple, multiple pregnancies, so it requires extensive placental implantation, cases of infertility, because the endometrial layer is thin, placenta previa, because in the isthmus, there are few blood vessels, so it needs to be more involved in the attachment and the former uterine surgery. Uteruses that have given birth to many children tend to work inefficiently in all stages of childbirth. High parity is one of the risk factors for postpartum hemorrhage. To meet the nutritional needs and the fetus of the placenta will undergo implantation expansion and the chorionic villi will penetrate the uterine wall (Nikilah, 2015). The incidence of placental retention is also related to grandemulti with placental implantation in the form of placental adhesiva, accreta, inkreta and perreta and requires immediate manual placental action when there is a history of recurrent postpartum bleeding (Wordpress, 2015). This research is in accordance with the theory expressed by Oxorn (2014), which explains that mothers in Multipara will have regressions and defects in the endometrium which results in fibrosis in the former placental implantation in previous delivery, so that vascularization is reduced. To meet the nutritional needs of the fetus. Furthermore, according to Saifuddin in Euphrasia (2012), the placenta will expand implantation and the chorial villi will penetrate the uterine wall even deeper so that there will be placenta adhesive to perchreta. In addition, in multipara and grandemultipara there is a decrease in uterine elasticity so that the myometrium cannot concentrate and retract optimally, resulting in placental retention. Based on research conducted by Sari, et al. (2014) Regarding the relationship between age, parity, and active management in phase III with the incidence of placental retention at Tamiang Laying Hospital in 2013, it was stated that some of the mothers who experienced placental retention events were as many as 41.1%. Hypothesis testing yields results  $p \text{ value} = 0,003 (p > 0,05)$

According to researchers from the results of the research that has been carried out, mothers who give birth with multipara parity indeed experience more incidences of placental retention compared to primipara/grandemultipara parity, this can be caused by the factor of low maternal education level so that mothers do not understand well about long-term family

planning programs and the ideal number of children recommended in accordance with the government program on family planning.

The results showed that out of 35 respondents, 14 people (40.0%) experienced placental retention. The table below illustrates the relationship between age, parity, and the incidence of placental retention:

**Table 8.** Relationship between Age, Parity, and Incidence of Placental Retention in Pregnant Women at Dumai City Hospital

No	Usia (tahun)	Paritas	Jumlah Re-sponden	Retensi Plasenta (f)	Persentase (%)
1	< 20	Primipara	9	4	44.4
2	21-35	Scundipara	15	1	6.7
3	36-40	Multipara	8	6	75.0
4	> 40	Grandemultipara	3	3	100.0
<b>Total</b>			<b>35</b>	<b>14</b>	<b>40.0</b>

From the table above, it can be seen that the incidence of placental retention is highest in the age group above 36 years and in multiparous parity, with percentages reaching 75% and 100% respectively.

## Discussion

The results of this study are in line with previous studies showing that age and parity are significant risk factors for the incidence of placental retention. For example, a study by Sari et al. (2014) found that pregnant women with high parity had a greater risk of placental retention, which is consistent with our findings. However, differences may appear in the reported prevalence, which could be due to differences in the study population and methods. Besides age and parity, other risk factors that may contribute to placental retention include medical history such as anemia, complications during pregnancy, and maternal education level. Anemia may affect the uterus' ability to contract effectively, while complications such as preeclampsia may interfere with the delivery process and increase the risk of placental retention. Therefore, it is important for health workers to consider these factors in the management of pregnant women. By understanding the various risk factors that contribute to the incidence of placental retention, more appropriate interventions can be designed to reduce the incidence and improve health outcomes for both mother and baby.

## CONCLUSION

This study shows that there is a significant association between age and parity with the incidence of placental retention in pregnant women at Dumai City Hospital. The results showed that women over the age of 35 years and those with multiparous parity had a higher risk of placental retention. The clinical implications of these findings emphasize the importance of closer monitoring and prompt treatment of pregnant women in these risk groups to prevent serious complications such as postpartum hemorrhage. Recommendations for further research include larger studies with a longitudinal design to explore other factors

that may contribute to the incidence of placental retention, as well as interventions that can reduce the risk. In addition, clinical practice should involve better education for pregnant women regarding risk factors and signs of placental retention. Limitations of this study include the small sample size and descriptive study design, which may limit the generalizability of the results. In addition, the data collected only covered one location, so the results may not reflect the wider population. Further research with a larger and more diverse sample is needed to gain a more comprehensive understanding of this issue.

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