The 3rd Mitra Husada Health International Conference (MiHHICo) 2023
Volume 3 (2023) ISSN: 2988-3768

THE RELATIONSHIP OF MOTHER'S AGE AND PARITY WITH THE INCIDENT OF PREMATE LABOR AT THE ADAM MALIK HAJJ CENTER GENERAL HOSPITAL YEAR 2023

Hotna Rohdearni Saragih[1],Ingka Kristina Pangaribuan[2]Ribur Sinaga[3]
Riska R Siregar.[4] Suriani[5] Janatun [6]
STIKes Mitra Husada Medan

[1]arnisumbayak987@gmail.com[2]ingka.kristina@gmail.com [3]Ribursinaga@gmail.com
[4]Riskasiregar@gmail.com [5]Suriani@gmail.com
[6]janatunnisak@gmail.com

ABSTRACT

Preterm labor is delivery at a gestational age of less than 37 weeks or low birth weight (LBW)500 -2499 grams.Preterm labor is a delivery that takes place at gestational age of 20-37 weeks counting from the first day of the last menstruation.This study aims to determine The relationship between maternal age and parity with the incidence of preterm labor at RSUP.H.Adam Malik in 2023. This research is an analyt ical study using a cross sectional approach. The population is all preterm mothers at RSUP.H.Adam Malik in 2023 totaling 100 people. The number of samples used is 50 people obtained using the Simple Radom Sampling Technique. The data analysis technique uses Chi square .The results obtained in this study were that the prevalence of age<20-30 years was 40 people(80%) and 20-30 years, namely 10 people (20.0%). The statistical test results P_Value 0.002,This means that there is a relationship between maternal age and the incidence Premature labor.From the incidence of pretrem labor the prevalence of Multipara parity was 34 people (68.0%),Primipara 16 people(32%), with P-Value of 0.01,This means that there is a relationship between parity and the incidence of preterm labor.There is a relationship between the variables of maternal age and the incidence of preterm labour.There is a relationship between the parity variable and the incidence of preterm delivery.It is recommended that health workers increase the scope of knowledge of adolescents and WUS for good reproduction.

Key words : Premature Labor, Maternal age, Parity.

INTRODUCTION

In accordance with government activities in maintaining children's health, which have been proven to produce healthy, intelligent and competent generations and can reduce child mortality, one of them is the Sustainable Development Program (SDG) or new development that can encourage the development of sustainable development goals. In the world in the third period of 2030, namely newborn mortality is 12 deaths per 1,000 live births and under-5 mortality is 25 deaths per 1,000 live births. There are 38 SDG's targets in the health sector that need to be realized, in addition to problems that have not been completely addressed, including to reduce MMR to below 70 per 100,000 KH and infant mortality rate (IMR), control HIV/AIDS, TB, malaria and increase access to

reproductive health (including family planning). Infant mortality rate (IMR) can be calculated from the number of infant deaths 0 <12 months per 1000 live births in a region in one year (SDGs, 2015) .

The maternal mortality rate (MMR) has decreased from 346 deaths per 100,000 KH The direct causes of maternal deaths are hypertensive disorders in pregnancy (31.90%), obstetric bleeding (26.90%), non-obstetric complications (18.5%) , other obstetric complications (11.80%), infections related to pregnancy (4.20%), abortion (5%) and other causes (1.70%) . Death Rate n Neonatal (AKN) decreased from 20 per 1,000 KH in 2002 to 15 per 1,000 KH in 2017 . The most common causes of neonatal death were intrapartum complications (27.7%), respiratory and cardiovascular disorders (22.3%), low birth weight and premature birth (20.8%), congenital abnormalities (12.9%), and infections (8, 7%) and others (7.6%). Most neonatal and under-five deaths occur in hospitals, namely 68% for neonatal deaths and 62.8% for under-five deaths (Ministry of Health, 2022) .

According to data from the World Health Organization, preterm births number 15 million babies each year, indicating that the frequency of preterm birth is still significant internationally. Premature births, which account for 5–18% of all births, account for more than 60% of preterm births. African and South Asian countries account for more than 60% of preterm births . Premature birth affects an average of 12% of newborns in low-income countries compared to 9% in high-income countries.

The highest preterm birth rates are in India (30%), South Africa (15%), Sudan (31%) and Malaysia (10%). Premature birth rates range from 9% in high-income countries to 12% in low-income countries. India has the highest premature birth rate, while Malawi ranks second. Indonesia is ranked 5th for the country with the largest premature birth rate, namely 675,700 babies (WHO, 2021) .

The prevalence of premature incidence in Indonesia in 2018 was 29.5 per 1000 live births. In Indonesia, the incidence of prematurity was in second place . as the cause of death of newborns aged 0-6 days by 32.4% and fourth as the cause of death Preterm/preterm delivery is still a problem in the world including Indonesia, related to prevalence, morbidity and perinatal mortality, which is the main cause of infant death and the second cause of death after pneumonia in children under five years of age. Preterm delivery is a driver of 75% of perinatal deaths and more than 50% of long-term morbidity associated with poor perinatal (Lenny, 2023) .

According to Riskesdas statistics (2018), the percentage of preterm births in pregnancies between the ages of 10 and 54 years reaches 29.5%, with 26.8% of these births occurring in urban areas and 32.7% in rural areas. Pregnancy occurred in this population at 15 years of age in 35.8%

of cases and in the adolescent age group (10-19) in 19.8% of cases.

There have been reports of a number of risk factors for preterm birth, such as maternal illness during pregnancy, repeated pregnancies, emotional and physical stress, placental anomalies, diet, medical conditions, and infections. Preterm birth is epidemiologically related to socioeconomic status, uterine abnormalities, previous preterm birth, abortion, smoking, race, and maternal age, which is very risky, between 20 and 35 years (Rachmantiawan and Rodiani, 2022).

Intrapartum problems (28.3%), Respiratory and cardiovascular disease (21.3%), Low birth weight and premature birth (19%), Congebital disorders (14.8%), and Infections (7.3%) Causes newborn and toddler deaths are the most, namely 68% and 62% respectively. Disorders that develop during pregnancy (49.8%), congenital and genetic conditions (14.2%), pneumonia (9.2%), diarrhea and other gastrointestinal infections (7%) are causes of infant death (Permenkes, 2020) .

Based on data from the RSIA Stella Maris Medan hospital, it also facilitates premature birth with good NICU standards. Information about medical records In 2019 the number of mothers who gave birth prematurely was 350 (10%) out of 3530 deliveries, in 2020 it became 300 (8.3%) out of 3601 deliveries and in 2021 even 316 (10%) out of 3296 shipments, so growth in 2021 is 1.7 percent compared to the previous year (Leni *et al.* , 2023) .

Based on an initial survey that was conducted by the author at the Adam Malik Haji Center General Hospital through medical record data on February 15, 2023, there were 100 patients who experienced premature labor for the January-December period of 2022.

Until now, the mortality and morbidity rates of neonates in preterm/premature infants are still very high. This is related to the maturity of the organs in newborns such as the lungs, brain and gestation. The causes of preterm labor can often be identified clearly. However, in this case the cause was definitely not known (Prawirohardjo, 2016) .

One of the causes of premature birth is the age of the mother (Zulaikha and Minata, 2021) . The best age to give birth is 20-35 years. pregnancy (Prawirohardjo, 2016) .

According to the theory, there are several factors that can affect the incidence of preterm labor. Factors that can cause preterm birth include: Maternal disease (Hypertension, Late fetal development, Abruption of the placenta, Placenta previa, Rhesus disorder, Diabetes, Infection, Clamydia, Bacterial vaginosis, Trichomonas vagina and candida, and infections of the amniotic fluid and chorioamnion), socio-economic (work, malnutrition, anemia). Obstetric Diseases (preeclampsia, diabetes mellitus, heart, lungs) (Dainty, Yuli and Ratna, 2021) .

According to research by Moy sara et al. The age of the mother that causes the most preterm labor is age <20 years and 35 years. This research

was conducted at Syekh Yusuf Hospital, Kab. Gowa. Moy et al classified that the respondents in their research were aged <25 years and > 35 years (Sara *et al.* , 2020) . <20 and >35 years which cause preterm labor but at the age of 20-35 about 10% who experience labor but at the age of <20 and >35 years there are still very many who experience preterm labor (Fahrul, 2021) .

Research by Nanik et al said that preterm labor means that the mother's age is <20 or > 35 years are more at risk of having a premature birth than a mother's age of 20 -35 years (Zulaikha and Minata, 2021) . Based on this background, the researchers were interested in examining the relationship between maternal age and parity with the incidence of preterm labor at Adam Malik Haji Center Hospital in 2023 .

METHOD

The method used in this research is observational analytic with a *cross-sectional design* , where data relating to independent or risk variables and dependent variables or consequential variables will be collected at the same time. With the aim of analyzing the relationship between maternal age and parity with the incidence of preterm labor at home Central General Hospital .Haji Adam Malik in 2023."

The sampling technique used in this study is *the Simple Radom Sampling Technique* , where the sampling technique is a sampling technique from the population. The samples are part of the population, and will be examined and then subjected to the population. The population in this research is 100 people, while the sample is 50 people will be taken where this sample is obtained from the results of the slovin formula. The type of data used in this study is secondary data. Data collection is data obtained from medical records. Data collection is data, namely data obtained by looking at data from medical records. , where data is taken directly from secondary data and recorded for the first time to analyze these data.

Univariate analysis was used to obtain an overview of the distribution of frequencies or proportions based on the variables studied. Bivariate analysis is used to determine the relationship between the independent (free) variable and the dependent (dependent) variable. This analysis was performed using the chi-square statistical test with a 95% degree of confidence and a significance level of 5%

RESULT AND DISCUSSION

Hasil penelitian menyajikan berbagai karakteristik data subjek/sampel dan temuan utama penelitian, sedangkan pembahasan berisi diskusi yang menghubungkan dan membandingkan hasil penelitian dengan teori/konsep/temuan dari hasil penelitian lain menggunakan acuan primer.

Characteristics of Respondents

Distribution of Premature Childbirth Frequency, Age and Parity at Adam Malik Hajj Center Public Hospital in 2023.

No	Variable	N	%
1	Mother's Age		
	-<20 yrs - >35 yrs	33 People	66.0%
	- 20Thn-35Thn	17 People	34.4%
2	Parity		
	- Multipara	34 People	68.0%
	- Primipara	16 People	32.0%

From the table above it can be seen from the respondents, the mother's age was mostly <20 years-> 35 years with 33 respondents (66.0%) and 17 respondents aged 20-35 years (34.4%).). Whereas in the parity variable the number of respondents was in multiparas with 34 respondents (68%), while respondents in primiparas with 16 respondents (32.0%).

Univariate Analysis Results

Frequency Distribution of Maternal Age of Premature Childbirth at Home Adam Malik Hajj Center General Hospital in 2023

No	Mother's Age	N	%
1	<20Years->35Years	33	66.0%
2	20Years-35Years	17	34.0 %
Amount		**50**	**100%**

Based on the table above, it can be seen that most of the respondents were categorized as 40 people (80%) with preterm birth, while 10 people (20 %) categorized as term deliveries.

Distribution of Premature Birth Parity Frequency at Home Adam Malik Hajj Center General Hospital in 2023

No	Parity Variable	N	%
1	Primipara	16	32 %
2	Multipara	34	68 %
Amount		**50**	**100%**

Based on the table above, it can be seen that the majority of respondents who gave birth to Primiparas were 16 people (32%) while those who were Multiparous were 34 people (68%).

Based on the table above, it can be seen that the majority of respondents who gave birth to Primiparas were 16 people (32%) while those who were Multiparous were 34 people (68%).

Results of Bivariate Analysis

The relationship between maternal age and the incidence of preterm labor Adam Malik Hajj Center Public Hospital in 2023.

Variable	Preterm		term		*P-Value*	OR	CI
	N	%	n	%			
a. <20 Years and >30 Years	31	77.5%	9	22.5%	002	13,778	2,472-76,792
b. 20-35 yrs	2	20.0%	8	80.0%			
Amount		50			002	13,778	2,472-76,792

Based on the table above, it is known that there is a relationship between maternal age and the incidence of preterm labor at the Haji Adam Malik Public Hospital in 2023 where the *P-Value* is 002 (*P <0.05)* . Age at high risk is in the category <20 years and >30 years in the case group found 40 people (80.0%), this figure is more than in the age group that is not at risk at the age of 20 years-35 years only 10 people (20%). The odds ratio value is 13.778 meaning 13.778 times greater than the mother who experience preterm labor due to having a high risk age <20->35 years compared to the age of mothers who do not experience preterm labor at the age of 20-35 years.

The relationship between parity and the incidence of preterm labor at home Adam Malik Hajj Center General Hospital in 2023.

No	Variable	**Preterm**		**Atem**		***P-Value***	**OR**	**CI**
		N	**%**	**N**	**%**			
1	Multipara	32	80.0%	2	20.0%	001	16,000	2,830-90,465
2	Primipara	8	20.0%	8	80.0%			
	Amount		**50**		**001**	**16,000**		**2,830-90,465**

Based on the table above, it is known that there is a parity relationship with the incidence of preterm labor at the Haji Adam Malik General Hospital in 2023 where the *P-Value* is 001 (*P <0.05)* . The high-risk parity is in the Multipara category in the case group found 34 16 people (68.0%), this figure is higher than in the parity group that is not at risk in the primipara group, only 16 people (32%). An odds ratio of 16,000 means that 16,000 times more women experience preterm labor due to having parity at high risk in multiparas compared with parities who did not experience preterm labor in primiparas.

Based on the table above, it can be seen that most of the respondents were categorized as 40 people (80%) with preterm birth, while 10 people (20 %) categorized as term deliveries.

CONCLUSION

Based on the results of research and changes, the authors can conclude

1. There is a relationship between age and the incidence of preterm labor at the Adam Malik Hajj Center General Hospital in 2023 with a p value of 0.002
2. There is a parity relationship to the incidence of preterm labor at the Adam Malik Hajj Center General Hospital in 2023 with a p value of 0.001
3. There is a relationship between age and parity with the incidence of preterm labor at Adam Malik Haji Center General Hospital in 2023.

REFERENCES

Ministry of Health (2022) '2021 Family Health Directorate Performance Report', *Ministry of Health RI* , 5201590(021), p. 4. Available at: https://www.depkes.go.id/article/view/19020100003/hari-kanker-sedunia-2019.html

Lenny, S. (2023) 'FACTORS AFFECTING THE EVENTS OF PREMATURE DELIVERY AT RSIA STELLA MARIS MEDAN IN 2022', *Scientific Health and Medicine* , 1(No.1 January 2023), pp. 1–31. Available at: file:///C:/Users/acer/Downloads/22-31+FACTOR-FACTORS+YANG+MEPEPARUHI+KEJADIAN+SOLVEMENT+PRE

Lu, L. *et al.* (2022) 'Impact of advanced maternal age on maternal and neonatal outcomes in preterm birth', *Gynecology Polska* , 93(2), pp. 134–141. Available at: https://doi.org/10.5603/GP.a2021.0224.

Marcella, F., Isnaini, N. and Utami, VW (2022) 'Maternal age and parity with incidence of preterm labour', 2(4), pp. 215–220.

Mustika, S. and et al (2022) 'RElationship between maternal reproductive age and disease history with premature birth at 45 Kuningan Hospital in 2022'.

Ningsih, NS, Tiodika, TA and Situmeang, IF (2022) 'Factors Associated with Premature Childbirth in Cibinong Hospital, Bogor Regency', *Indonesian Journal of Midwifery Scientific* , 1(1), pp. 29–39

Permenkes, 2020 (2020) 'Permenkes 2020', *Kaos GL Dergisi*, 8(75), pp. 147–154. Available at: https://doi.org/10.1016/j.jnc.2020.125798%0Ahttps://doi.org/10.1016/j.smr.2020.02.002%0Ahttp://www.ncbi.nlm.nih.gov/pubmed/810049%0Ahttp://doi.wiley.com/10.1002/anie.197505391%0Ahttp://www.sciencedirect.com/science/article/pii/B9780857090409500205%0Ahttp:

Prawirohardjo, S. (2016) *Ilmu Kebidanan Sarwono Prawirohardjo*. Edited by Saifudidin. Jakarta: PT Bina Pustaka.

Rachmantiawan, A. and Rodiani, R. (2022) 'Persalinan Preterm Pada Kehamilan Remaja', 4(November), pp. 1135–1142. Available at: http://jurnal.globalhealthsciencegroup.com/index.php/JPPP.

SDGs (2015) *Kehidupan Sehat dan Sejahtera*. Available at: https://sdgs.bappenas.go.id/tujuan-3/.

Sujarweni, W. (2022) *Metode Penelitian*. Jl.WonosariKm.6.demblaksari baturetno : PT PUSTAKABARU.Available at: https://doi.org/978-979-268-6234.

Sujiyatini, Mufdlilah and Asri, H. (2021) *Asuhan Patologi Kebidanan*. Edited by A. Setiawan. Jl.Sadewa No.1 Sarowajanbaru,Yogyakarta: Medika, Nusa.