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The Relationship between Pregnant Women's Knowledge and the Incidence of Preeclampsia

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ABSTRACT

Preeclampsia is a clinical syndrome that often occurs during pregnancy, characterized by hypertension, proteinuria, and edema after 20 weeks of gestation. Pregnant women's knowledge about this condition can affect early detection and proper management. This study aims to evaluate the relationship between pregnant women's knowledge and the incidence of preeclampsia. Methods: Descriptive study was conducted in RSUD Panyabungan, Mandailing Natal Regency. A total of 34 pregnant women were the subjects of the study. Data were collected through a questionnaire that measured the level of knowledge of pregnant women about preeclampsia. Statistical analysis was performed to determine the relationship between knowledge variables and the incidence of preeclampsia. Results: The majority of respondents had sufficient knowledge (55.9%), followed by good (23.5%) and poor (20.6%) knowledge levels. Statistical analysis showed a significant association between the knowledge of pregnant women and the incidence of preeclampsia ($p < 0.05$). However, no significant association was found between knowledge and risk factors such as age and parity ($p > 0.05$). Conclusion: Knowledge of pregnant women is associated with the incidence of preeclampsia. Education and counseling efforts to pregnant women need to be increased to improve their understanding of preeclampsia, so as to improve early detection and management of the condition.



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INTRODUCTION

Preeclampsia is a clinical syndrome that occurs in pregnancy when the gestational age is > 20 weeks, which is characterized by hypertension, proteinuria, and edema. These symptoms can occur before 20 weeks of gestation in trophoblastic disease (achadiat, 2011). The cause of preeclampsia itself is not yet clearly known. This disease is considered a "maladaptation syndrome" due to general vasospasm with all its consequences (Sujiyatini et al, 2018). Preeclampsia is a symptom that occurs in pregnant, parturient and postpartum women consisting of hypertension with blood pressure $\geq 140/90$ mmHg, edema and urine protein 300 mg protein in 24 hour urine but does not show signs of vascular abnormalities or previous hypertension, while the symptoms usually appear after 28 weeks of pregnancy or more (Icemi Sukarni, 2017). The mother's age during pregnancy greatly influences the gestational age and delivery. Because women under 20 years of age and over 35 years of age are not recommended to become pregnant or give birth. This is because when women enter this age they have a high risk of maternal mortality (MMR). (Veramala, 2017).

Globally, preeclampsia is also a problem, 10% of pregnant women worldwide experience preeclampsia, and it is the cause of 76,000 maternal deaths and 500,000 infant deaths every year. Based on research by the United States Agency for International Development (USAID) in 2016, as many as 99% of maternal deaths were related to countries with low and medium economic income. In developed countries,

the incidence of severe preeclampsia is around 6-7% and eclampsia is 0.1-0.7%. According to the World Health Organization (WHO), the incidence of preeclampsia ranges from 0.5%-38.4%, while the incidence rate in Indonesia is around 3.4%-8.5% (Legawati & Utama, 2017). The incidence of preeclampsia in Indonesia ranges from around 3-10% of all pregnancies (Gloria, 2017). Research results (Kurniasari, 2015) showed that the results of the analysis between the age of pregnant women and the incidence of preeclampsia were obtained from 43 pregnancies with ages at risk of <20 years and >35 years. Those who experienced severe preeclampsia were 74.4% (32 pregnant women) and those who experienced mild preeclampsia were 25.6% (11 pregnant women), while of the 19 pregnant women whose age was not at risk of experiencing mild preeclampsia, 84.2% (16 pregnant women) and 3 pregnant women experienced severe preeclampsia 15.8%. This means that mothers who are at risk age have a greater incidence of preeclampsia compared to mothers who are not at risk age.

In North Sumatra, 3,560 cases of preeclampsia were reported from 251,449 pregnancies, while at the Dr. General Hospital. Pirngadi Medan reported that the maternal mortality rate for preeclampsia in 2007-2008 was 3.45%, in 2008-2009 it was 2.15%, and in 2009-2010 it was 4.65% (North Sumatra Health Office, 2018). Some impacts occur in mothers who are at high risk who are <20 years old or >35 years old. Such as Gestational Diabetes, Low Birth Weight (LBW), Chromosomal Abnormalities, Miscarriage or stillbirth, Mothers experiencing postpartum blues (Baby Blues), Premature Birth, Greater risk of abortion, Anemia/Iron deficiency. (Veramala, 2017).

METHODS

Research Techniques

This research is descriptive research with a survey method. The relationship between knowledge of pregnant women and the incidence of preeclampsia. The location of the research was at Panyabungan Regional Hospital, Jl. Merdeka No. 40, Kayu Jati, Panyabungan District, Mandailing Natal Regency, North Sumatra. The research was conducted from October to January 2022. The population in this study were all patients suffering from preeclampsia at the Panyabungan Regional General Hospital. August 2020 to October 2021 as many as 34 people. Data collection was carried out using primary data from respondents through questionnaires

RESULTS AND DISCUSSION

Discussion of results

Univariate Analysis Results

This univariate analysis aims to describe each relationship between the variables studied. Namely looking at the relationship between knowledge of pregnant women and the incidence of preeclampsia. Categorical data are knowledge, age, parity. Numerical data is looked for for the mean, median and standard deviation, namely:

Table 1. Frequency Distribution of Respondents Based on Respondents' Knowledge Characteristics at Panyabungan Regional Hospital, Panyabungan District, City, Mandailing Regency, Natal 2022

No	Knowledge	Frequency	Percentage (%)
1	Good	8	23.5
2	Enough	19	55.9
3	Not enough	7	20.6
	Amount	34	100

(Source: Primary Data, 2022)

Based on table 1. above, from the results of statistical tests, the data shows that the majority of knowledge

is good knowledge, 19 people (55.9%), while the minority is less knowledgeable, 7 people (20.6%).

Table 2. Frequency Distribution of Respondents Based on Age Characteristics of Respondents at Panyabungan Hospital, Panyabungan City District in Mandailing Regency, Natal 2022

No	Age	Frequency	Percentage (%)
1	19-25 years old	12	35.3
2	26-35 years old	18	52.9
3	36-45 years old	4	11.8
	Amount	Total 34	100

(Source: Primary Data, 2022)

Based on table 2. above, the results of statistical tests show that the majority of respondents are 26-35 years old, 18 people (52.9%), while the minority is 36-45 years old, 4 people (11.8%).

Table 3. Frequency Distribution of Respondents Based on Parity Characteristics of Respondents at Panyabungan Hospital, Panyabungan City District in Mandailing Regency Natal 2022

No	Age	Frequency	Percentage (%)
1	Parity 1	7	20.6
2	Parity 2	13	38.2
3	Parity 3	14	41.2
	Amount	34	100

(Source: Primary Data, 2021)

Based on table 3 above, the results of statistical tests show that the majority of respondents' parity is parity 3 as many as 14 people (41.2%), while the minority is parity 1 as many as 7 people (20.7%).

Bivariate Analysis

Bivariate analysis was used to determine whether there was a relationship between pregnant women's knowledge and the incidence of preeclampsia at Panyabungan Hospital, Panyabungan District, Mandailing Natal Regency City in 2022 using the chi square statistical test.

Table 4. Cross-tabulation of the level of knowledge of pregnant women regarding the incidence of preeclampsia at Panyabungan Hospital, Panyabungan District, Mandailing Natal Regency City, 2022.

		Knowledge of Pregnant Women with Incidence of preeclampsia p-value						0.013	
		Good		Enough		Not enough			
		f	%	F	%	F	%		
Age	19-25 years old	3	8.8	3	8.8	6	17.6	12	35.3
	26-35 years old	5	14.7	12	35.3	1	2.9	18	52.9
	36-45 years old	0	0.0	4	11.8	0	0.0	4	11.8

	Total	8	23.5	19	55.9	7	20.6	34	100
Parity	Parity 1	3	8.8	2	5.9	2	5.9	7	20.6
	Parity 2	3	8.8	5	14.7	5	14.7	13	38.2
	Parity 3	2	5.9	12	35.3	0	0.0	14	41.2
	Total	8	23.5	19	55.9	7	20.6	34	100

Based on the results of data analysis using the chi-square test, a significance value of 0.013 was obtained. Based on this value, because the p value is <0.05 , then $0.013 < 0.05$, it can be concluded that "Knowledge of Pregnant Women is Associated with the Incident of Preeclampsia."

Based on the research results obtained from the knowledge of respondents at Panyabungan Regional Hospital, the majority of knowledge was sufficient knowledge, 19 people (55.9%), while the minority had insufficient knowledge, 7 people (20.6%). Preeclampsia is hypertension that occurs before 20 weeks of gestation accompanied by proteinuria. Expert opinions before preeclampsia are divided into mild and severe, namely (Nursalam, 2017). Based on the research results, it was found that preeclampsia in the Panyabungan Regional Hospital was that the majority of respondents had sufficient knowledge about preeclampsia, namely 19 people (55.9%), while the minority had insufficient knowledge about preeclampsia, namely 9 people (20.6%). And the rest had good knowledge of preeclampsia, namely 8 people (23.5%). From the results above, it is known that there is still a lack of knowledge among pregnant women regarding the occurrence of preeclampsia. Preeclampsia in pregnant women is very dangerous because it is a risk factor for morbidity and death. The risk factor that most influences preeclampsia is hyperhomocysteinemia (Notoatmodjo, 2010: Pages 17,18-19).

CONCLUSION

From the results of research on 34 respondents at Panyabungan Hospital, Panyabungan District, Mandailing Natal Regency City in 2022, based on knowledge characteristics, namely that the majority had sufficient knowledge, 19 people (55.9%), while the minority was less knowledgeable, 7 people (20.6%), based on age characteristics, namely the majority aged 26-35 years as many as 18 people (52.9%), and the minority aged 36-45 as many as 4 people (11.8%), and based on parity characteristics, namely the majority is parity 3 as many as 14 people (41.2%) and minorities with parity 1 are 7 people (20.6%). 6.1.2 From the results of research on respondents, it is obtained that from age the p value is 0.013 with $\alpha = 0.05$ and the parity p value is 0.031 with $\alpha = 0.05$, it can be seenconclude that there is a significant relationship between knowledge of pregnant women and the incidence of preeclampsia. Ho is rejected and Ha is accepted, meaning there is a relationship between the knowledge of pregnant women and the incidence of preeclampsia at the Panyabungan Hospital, Panyabungan District, Mandailing Natal Regency City in 2022.

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