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The Relationship of Knowledge, Parity and Anxiety With the Event of Severe Preeclamsia in Hospital General of Wood Area 2021

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A R T I C L E I N F O

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ABSTRACT

Preeclampsia is a health problem that requires special attention because preeclampsia is a high cause of maternal and perinatal mortality, especially in developing countries. Until now preeclampsia and eclampsia are still "the disease of theories", because the incidence of preeclampsia-eclampsia remains high and results in high maternal morbidity and mortality. Many theories suggest that the cause of preeclampsia is placental ischemia. However, this theory cannot explain all the things related to the disease. Apparently not only one factor, but many factors that cause preeclampsia and eclampsia (multiple causation). Factors that are often found as risk factors include parity, knowledge and anxiety. This study aims to determine the relationship between knowledge, parity and anxiety with the incidence of severe preeclampsia at the Kayuagung Hospital in 2021. The design of this research is quantitative using an analytical survey method with a cross sectional approach. The population in this study were all pregnant women who were treated at the Kayuagung Hospital from January to December 20, 2021. The sample used was some pregnant women who were treated at the Kayuagung Hospital. Sampling technique Incidental Sampling / Accidental Sampling, amounting to 33 respondents. The statistical results of the chi-square test obtained p value = 0.015 <0.05, so it can be concluded that there is a relationship between knowledge and the incidence of severe preeclampsia, the statistical results of the chi-square test obtained p value = 0.033 <0.05, so it can be concluded it was concluded that there was a relationship between parity and the incidence of severe preeclampsia and the statistical results of the chi-square test obtained p value = 0.067 <0.05, so it could be concluded that there was no relationship between parity and the incidence of severe preeclampsia. It can be concluded that there is a relationship between knowledge and parity with the incidence of severe preeclampsia at the Kayuagung Hospital in 2021 and there is no relationship between simultaneous anxiety and the incidence of severe preeclampsia in the Kayuagung Hospital in 2021

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1. Introduction

According to the World Health Organization (WHO), the incidence of preeclampsia is still high from 2017 ranging from 0.51% - 38.4%, the prevalence of preeclampsia in developed countries is 1.3-6%, while developing countries are 1.8-18 % [1].

The incidence rate in Indonesia is around 3.8-8.5%. In Indonesia, preeclampsia is a high cause of maternal death by 24%. (Depkes RI, 2015). In 2019 the MMR reached 305 per 100,000 live births due to bleeding reaching 38.24% (111.2 per 100,000 live births), severe preeclampsia 26.47% (76.97 per 100,000 live births), due to congenital disease19, 41 (56.44 per 100,000 live births), and 5.88% infection (17.09 per 100,000 live births) (Rikesdas, 2019)[2]. The number of maternal deaths in South Sumatra in 2018 reached 120 out of 162,133 live births. The cause of maternal death was preeclampsia 46 (38.3%), eclampsia 29 (24.2%), infection 2 (1.7%) and others 28 (35.8%) and the maternal mortality rate in 2019 reached 105 of 156,615 live births.

Preeclampsia is a health problem that requires special attention because preeclampsia is a high cause of maternal and perinatal mortality, especially in developing countries [4]. Until now, preeclampsia and eclampsia are still "the disease of theories", because the incidence of preeclampsia-eclampsia remains high and results in high rates of maternal morbidity and mortality [5].

Knowledge of pregnant women can affect the behavior of preventing preeclampsia [6]. Previous research conducted by Usnaini et al. (2016) suggested that knowledge of pregnant women regarding prevention of preeclampsia is still lacking, this is due to several factors such as the age of pregnant women who are young adults so they do not know about prevention of preeclampsia, the second factor that affects knowledge is the education of pregnant women where in this study the average education for pregnant women is secondary education where there is still a lack of knowledge of pregnant women regarding preeclampsia and another factor is that the pregnant woman has never received information related to the prevention of preeclampsia [7].

Preeclampsia occurs in the first pregnancy and parity 2-3 is a safe gasket parity in terms of the incidence of preeclampsia and the risk increases again in grandemultigravida. In primigravida/primiparas there is an immunologic disorder (blocking antibodies) where the production of inhibitory antibodies is reduced so that it can inhibit the invasion of the maternal spiral arteries by trophoblasts to a certain extent so that it can interfere with placental function [8].

Anxiety feelings of pregnant women in the third trimester will think about the condition of the baby and the delivery process. Pregnant women who experience excessive anxiety will be at risk of stimulation of fetal contractions which can lead to miscarriage and increased blood pressure, resulting in the incidence of preeclampsia. In addition to preeclampsia, pregnant women who lack support and experience mental stress are at risk of experiencing premature birth [9].

Based on the initial survey conducted at the Kayuagung Hospital, data on pregnant women treated at the RSUD in 2021 were 1624 patients, while those diagnosed with severe preeclampsia were 297 patients. In the last 3 months pregnant women diagnosed with severe preeclampsia were 97 patients, in September 31 severe preeclampsia increased in October as many as 34 patients and decreased in November as many as 32 patients [10]

Based on the above phenomenon, the researcher is interested in conducting a study with the title "Relationship of Knowledge, Parity and Anxiety with the incidence of severe preeclampsia in Kayuagung Hospital in 2021".

2. Methods

This study uses quantitative research using an analytical survey method with a cross sectional research design, the study was conducted in January 2022, the sample of this study was some pregnant women who were treated at the Kayuagung Hospital, the number of samples in this study was 33 people.

3. Results and Discussion

3.1 Research result

a. Univariate Analysis

TABLE 1.
FREQUENCY DISTRIBUTION OF RESPONDENTS BASED ON KNOWLEDGE AT KAYU AGUNG HOSPITAL, OKI REGENCY IN 2021

No	Knowledge	Frequency (N)	Percentage (%)
1.	Not good	13	39.4
2.	Well	20	60.6

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No	Knowledge	Frequency (N)	Percentage (%)
	Amount	33	100

Based on table 1, it can be seen that from 33 respondents who have good knowledge as many as 20 people (60.6%) are bigger than respondents who have poor knowledge as many as 13 people (39.4%).

TABLE 2.
FREQUENCY DISTRIBUTION OF RESPONDENTS BASED ON PARITY AT KAYU AGUNG HOSPITAL, OKI REGENCY IN 2021

No	Parity	Frequency (N)	Percentage(%)
1.	High Risk	15	45.5
2.	Low Risk	18	54.5
	Amount	33	100

Based on table 2 shows that of the 50 respondents the maternal age is not at risk, 33 respondents (66%) are at risk, while the age at risk is 17 respondents (34%).

TABLE 3.
FREQUENCY DISTRIBUTION OF RESPONDENTS BASED ON ANXIETY AT THE KAYU AGUNG HOSPITAL, OKI REGENCY IN 2021

No	Worry	Frequency (N)	Percentage(%)
1.	Worried	22	66.7
2.	Don't worry	11	33.3
	Amount	33	100

Based on table 3, it can be seen that from 33 respondents who experienced anxiety as many as 22 people (66.7%) were greater than those who did not experience anxiety as many as 11 people (33.3%).

b. Bivariate Analysis

TABLE 4.
THE RELATIONSHIP BETWEEN KNOWLEDGE AND SEVERE PREECLAMPSIA AT THE KAYU AGUNG HOSPITAL, OKI REGENCY IN 2021

No	Knowledge	Severe preeclampsia				Amount		P Value	OR C195%
		Yes		No					
		n	%	n	%	N	%		
1.	Not good	11	84.6	2	15.4	13	100	0.030	8,250 (1,430-47,581)
2.	Well	8	40.0	12	60.0	20	100		
	Amount	19		14		33			

From table 4, it can be seen that of the 13 respondents with poor knowledge who experienced severe preeclampsia, 11 respondents (84.6%) while from 20 respondents with good knowledge who experienced severe preeclampsia were 8 respondents (40.0%).

Based on the statistical results of the chi-square test, p value = 0.030 <0.05, so it can be concluded that there is a relationship between knowledge and the incidence of severe preeclampsia in the Kayu Agung Hospital, Ogan Komering Ilir (OKI) Regency in 2021.

The results of the Odds Ratio obtained OR value: 8.250, meaning that respondents who have poor knowledge have a tendency of 8.250 times to choose the incidence of preeclampsia compared to respondents who have good knowledge.

TABLE 5.
THE RELATIONSHIP BETWEEN PARITY AND SEVERE PREECLAMPSIA AT THE KAYU AGUNG HOSPITAL, OKI REGENCY IN 2021

No	parity	Severe preeclampsia				Amount		P Value	OR C195%
		Yes		No					
		n	%	n	%	N	%		
1.	High risk	13	81.2	3	18.8	16	100	0.020	7,944

No	parity	Severe preeclampsia				Amount		P Value	OR C195%
		Yes		No					
		n	%	n	%	N	%		
2.	Low risk	6	35.5	11	64.7	17	100		(1,601-
	Amount	19		14		33			39,416)

From table 5 it can be seen that from 16 respondents with high parity who experienced severe preeclampsia as many as 13 respondents (81.2%) while from 17 respondents with low parity who experienced severe preeclampsia as many as 6 respondents (35.5%).
Based on the statistical results of the chi-square test, the p value = 0.020 <0.05, so it can be concluded that there is a relationship between parity and the incidence of severe preeclampsia at the Kayu Agung Hospital, Ogan Komering Ilir (OKI) Regency in 2021.
The results of the Odds Ratio obtained an OR value of 7.944 which means that respondents who have high parity have a tendency of 7,944 times to choose the incidence of preeclampsia compared to respondents who have low parity.

TABLE 6.
THE RELATIONSHIP BETWEEN ANXIETY AND SEVERE PREECLAMPSIA AT THE KAYU AGUNG HOSPITAL, OKI REGENCY IN 2021

No	Worry	Severe preeclampsia				Amount		P Value	OR C195%
		Yes		No					
		n	%	n	%	N	%		
1.	Worried	5	71.4	2	28.6	7	100		2,143
2.	Don't worry	14	53.8	12	46.2	26	100	).067	(0.350-
	Amount	19		14		33			13.121)

From table 6, it can be seen that of the 7 anxious respondents who experienced severe preeclampsia as many as 5 respondents (71.4%). Meanwhile, of the 26 respondents who were not anxious, 14 respondents (53.8%).
Based on the statistical results of the chi-square test, p value = 0.067 > 0.05, so it can be concluded that there is no relationship between anxiety and the incidence of severe preeclampsia at the Kayu Agung Hospital, Ogan Komering Ilir (OKI) Regency in 2021.
The results of the Odds Ratio obtained an OR value: 2.143, meaning that respondents who have anxiety have a tendency of 2,143 times to choose the incidence of preeclampsia compared to respondents who are not anxious.

3.2 Discussion

a. The Relationship of Knowledge with the Incidence of Severe Preeclampsia

Based on univariate analysis, that of 33 respondents who have good knowledge as many as 20 people (60.6%) is greater than respondents who have poor knowledge as many as 13 people (39.4%).
That of 13 respondents with poor knowledge who experienced severe preeclampsia 11 respondents (84.6%) while from 20 respondents with good knowledge who experienced severe preeclampsia were 8 respondents (40.0%).
Based on the statistical results of the chi-square test, the p value = 0.030 <0.05, so it can be concluded that there is a relationship between knowledge and the incidence of severe preeclampsia at the Kayu Agung Hospital, Ogan Komering Ilir (OKI) Regency in 2021. The Odds Ratio results obtained the OR value: 8,250 means that respondents who have poor knowledge have a tendency of 8,250 times to choose the incidence of preeclampsia compared to respondents who have good knowledge.
Knowledge is influenced by several factors including age, education, mass media/information, socio-cultural and economic, environment and experience (Notoatmojo, 2013). Education can affect one's knowledge that underlies one's attitudes and behavior, especially in health care. Education has a positive effect on health awareness and directly impacts health behavior. So it is expected that pregnant women with a higher level of education have a better level of knowledge about preeclampsia compared to pregnant women with lower education in order to be able to recognize the symptoms of preeclampsia/
According to the assumption of researchers, knowledge is very important for our lives,

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knowledge about health and health problems is very influential for pregnant women, especially the problem of preeclampsia because preeclampsia can affect the mother and fetus so that socialization and information about signs and symptoms of preeclampsia are needed so that pregnant women can detect it as early as possible.

b. The Relationship of Parity with the Incidence of Severe Preeclampsia

Based on univariate analysis, from 33 respondents who have high parity are 15 people (45.5%) while respondents who have low parity are 18 people (54.5%).

That of 16 respondents with high parity who experienced severe preeclampsia as many as 13 respondents (81.2%) while from 17 respondents with low parity who experienced severe preeclampsia as many as 6 respondents (35.5%). Based on the statistical results of the chi-square test, the p value = 0.020 <0.05, so it can be concluded that there is a relationship between parity and the incidence of severe preeclampsia at the Kayu Agung Hospital, Ogan Komering Ilir (OKI) Regency in 2021.

The results of the Odds Ratio obtained an OR value of 7.944 which means that respondents who have high parity have a tendency of 7,944 times to choose the incidence of preeclampsia compared to respondents who have low parity.

Preeclampsia does not only occur in nulliparas, grandemultiparas also have a risk for preeclampsia. Overstretching of the uterus causes excessive ischemia which can lead to preeclampsia. Weakness of the uterine wall will cause the failure of trophoblast cell invasion in the spiral artery walls that cannot be completely dilated. Failure of trophoblast invasion of the spiral artery walls that cannot be completely dilated can cause blood flow in the placental intervillous space. Blood flow in the placental intervillous space causes placental hypoxia. Sustained hypoxia causes oxidative stress (in which the peroxide balance is disturbed, where peroxides and oxidants predominate) and stimulates endothelial damage to blood vessels (endothelial dysfunction).

According to the researcher's assumption, childbirth often has a negative effect on the fetus and mother, this is contrary to the public belief that childbirth will be easier with more childbirth experiences, repeated deliveries actually have many risks and serious complications.

c. Anxiety Relationship with Severe Preeclampsia Incidence

Based on univariate analysis, that of 33 respondents who experienced anxiety as many as 22 people (66.7%) it was greater than those who did not experience anxiety as many as 11 people (33.3%).

That from 7 anxious respondents who experienced severe preeclampsia were 5 respondents (71.4%). Meanwhile, from 26 respondents who were not anxious, 14 respondents (53.8%). Based on the statistical results of the chi-square test, p value = 0.067 > 0.05, so it can be concluded that there is no relationship between anxiety and the incidence of severe preeclampsia at the Kayu Agung Hospital, Ogan Komering Ilir (OKI) Regency in 2021.

The results of the Odds Ratio obtained OR value: 2.143, meaning that respondents who have anxiety have a tendency of 2,143 times to choose the incidence of preeclampsia compared to respondents who are not anxious.

According to the researcher's assumption, pregnant women who experience anxiety and stress can cause their blood pressure to rise. Hypertension in pregnant women, including preeclampsia, can cause babies born to have low birth weights, and even death. The fetus in the womb can respond to what the mother is feeling, such as the mother's heartbeat, the faster the mother's heartbeat, the faster the movement of the fetus in the womb. Pregnant women who experience anxiety can increase their heart rate, and pregnant women with hypertension have anxiety because they always think about the continuity of fetal life until delivery.

4. Discussion

There is a simultaneous relationship between knowledge and parity with the incidence of severe preeclampsia and there is no relationship between simultaneous anxiety and the incidence of severe preeclampsia at the Kayuagung Hospital 2021

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