The Influence of Pregnant Women's Knowledge Level on Early Detection of Preeclampsia

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ABSTRACT

Pregnancy is a physiological condition that can be followed by pathological processes that threaten the condition of the mother and fetus. About 15% experience serious complications, and a third experience preeclampsia. Preeclampsia is one of the causes of maternal and fetal death with a fairly large incidence. Preeclampsia is the onset of hypertension accompanied by proteinuria . The aim is to analyze the level of knowledge of pregnant women regarding early detection of preeclampsia. The research method used was observational analysis with a cross sectional approach collected at a certain time simultaneously. The research population was all 33 pregnant women. The sample size is known by looking at the sample size which has been calculated using the Slovin formula and knowing the minimum number required, namely 40 respondents. The sampling technique used in this research is purposive sampling technique, which is a sample determination technique by selecting elements randomly. Using the Chi-Square statistical test, this research was carried out on pregnant women at the maternity clinic at Ngimbang Lamongan Regional Hospital. Analysis of the closeness of influence, respondents who have high knowledge have the opportunity to carry out early detection of high risk pregnancy 8 (36.4%) times compared to respondents who have low knowledge, have the opportunity to carry out early detection high risk pregnancy 14 (63.3%) times compared to respondents who do not gain knowledge about early detection during pregnancy. The results of the study stated that there was an influence between pregnant women's knowledge about preeclampsia and prevention of preeclampsia. This is proven by the results of the analysis of p value = 0.000 (p value < 0.05) indicating that there is a significant influence between knowledge of pregnant women and prevention of preeclampsia .

Keywords: Knowledge, Pregnant Women, Early detection, Pre Eclampsia

1. INTRODUCTION

Pregnancy is a physiological condition, but normal pregnancy can also turn into pathological pregnancy when pregnancy is a complication or difficulty that accompanies the mother during pregnancy (Balikova, 2018). Pregnancy is a physiological condition that can be followed by pathological processes that threaten the condition of the mother and fetus (Goleman, 2019). About 15% experience serious complications, and a third experience preeclampsia. Preeclampsia is one of the causes of maternal and fetal death with a fairly large incidence(Syarifudin, 2020). Much research has been conducted on pre-eclampsia, but until now the cause of pre-eclampsia has not been determined. Various mechanisms can explain the cause. There are many causes of preeclampsia, but there is a theory. The Disiasis OF Theorists say that free radicals are one of them. factors causing gestational hypertension. Factors that cause an increase in free radicals are pollution, radiation, physical factors such as pregnancy, overtraining, lifestyle such as smoking, drinking alcohol, bad food, lack of exercise, stress, emotions, psychological effects such as various diseases, drugs. and other factors, radiation treatment(Lilik Darwati et al., 2023)

The Maternal Mortality Rate (MMR) is still the main priority in following up the Sustainable Development Goals (SDGs) program target in the health sector, namely reducing the MMR ratio to 70 per 100,000 live births (KH) by 2030 (Kemenkes RI, 2022). (Wasiah & Darwati, 2023)The global MMR ratio is still too high, namely 152 per 100,000 KH. It is known that 94% of all global maternal deaths occur in low and lower middle income countries, such as Indonesia(WHO, 2017). Chair of the Scientific Committee of the International Conference on Indonesia Family Planning and Reproductive Health (ICIFPRH), Meiwita Budhiharsana, explained that Indonesia's MMR is still relatively high and has not yet reached the SDGs target, namely 305 per 100,000 KH. In 2021, Indonesia's MMR was recorded to have increased by 2,762 maternal deaths (Kemenkes Jawa Timur, 2016). Around 810 pregnant women worldwide die every day due to complications related to pregnancy and childbirth (WHO, 2017). The main complication that causes almost 75% of global maternal mortality is hypertension in pregnancy (preeclampsia and eclampsia) (Purnomo et al., 2018). The prevalence of preeclampsia in developed countries is known to be 1.3%-6%, while in developing countries, such as Indonesia, it is higher, namely 1.8%-16.7% (Arikah et al., 2020). The situation in Indonesia itself, hypertension in pregnancy 2 (preeclampsia and eclampsia) is in third place after COVID-19 and bleeding as the cause of most maternal deaths, namely 1,077 cases (Malka & Kebidanan Batari Toja Watampone, 2022)

The most common complication in pregnant women worldwide is hypertension in pregnancy (some studies estimate that it affects 7-10% of all pregnancies worldwide), and is associated with significant maternal morbidity and mortality as well as perinatal mortality. In fact, hypertension in pregnancy is the second largest cause of maternal death in the world (14% of the total) and around 192 people die every day (Dewi, 2018). The causes of maternal death are hypertension during pregnancy (preeclampsia/eclampsia), bleeding, infection, prolonged labor and unsafe abortion (Mochammad Ilham et al., 2022). Preeclampsia is a condition where pregnant women have high blood pressure accompanied by proteinuria (Muzayyana, 2020). Preeclampsia is the onset of hypertension accompanied by proteinuria. Symptoms of preeclampsia are headache, blurred vision, edema, systolic blood pressure of more than 160 mmHg and diastolic more than 110 mmHg.(Lilik Darwati et al., 2023)

Based on research results (Marlina et al., 2021), it is known that health education can increase the knowledge of pregnant women so that they are able to understand about preeclampsia in pregnancy, its dangers and how to prevent it. The concept of health education is learning for individuals, groups, or communities from not knowing about health values to knowing, and from not being able to overcome health problems to being able to(Arafah & Notobroto, 2018). Based on the results of previous research and the theories previously mentioned, it is believed that providing or increasing knowledge to pregnant women about preeclampsia in an effort to maintain and improve health to prevent preeclampsia can be achieved through

health education. Prevention of preeclampsia is very necessary so that mothers can recognize preeclampsia, anticipate and prevent the occurrence of preeclampsia so that it can reduce MMR (Rosadi & Hildawati, 2021).

Health education is generally not delivered directly, but uses the help of the media. Health education media are tools to facilitate the receipt of health information for the public (Malka & Kebidanan Batari Toja Watampone, 2022). One of them is leaflet media which is widely used by public service agencies. This type of health education media has advantages, namely that the development process is relatively fast, 6 effective for conveying short and concise messages, and easy to carry (Suhardjono, 2017) indicating that there is an influence of providing leaflets on increasing pregnant women's knowledge about preeclampsia. Apart from that, along with the times and advances in technology, the use of media in health education is also growing(Wasiah & Darwati, 2023), showing that smartphone users in Indonesia have reached 345.3 million units or 125.6% of the total population. Apart from that, this media

has advantages compared to conventional media, such as not being easily damaged, easy to carry, can be used anytime and anywhere, and is usually packaged in an attractive application design so that its use is popular. Research results (Putri et al., 2020). prove that that mobile-based health education applications can increase pregnant women's knowledge about preeclampsia. Based on this background, researchers were interested in researching the differences in knowledge of pregnant women between those who received health education about preeclampsia using application media and leaflets.

After people sense a particular object. Sensing of objects occurs through the five human senses, namely sight, hearing, smell, taste and touch. Some human knowledge is obtained through the eyes and ears. Knowledge is one of three domains that influence human behavior. Knowledge has an important role in forming a person's actions. The increase in cases of preeclampsia is one of the biggest causes of increasing MMR. The aim is to analyze the level of knowledge of pregnant women regarding early detection of preeclampia (Darwati & Nikmah, 2020).

2. METHODS

The research design used was observational analysis with a cross sectional approach collected at a certain time simultaneously. The research population was all 43 pregnant women. The number of samples is known by looking at the sample size which has been calculated using the Slovin formula and knowing the minimum number required, namely 40 people. The sampling technique used in this research is purposive sampling technique, which is a sample determination technique by selecting elements randomly (Nursalam, 2017). Using the Chi-Square statistical test, this research was carried out on pregnant women at the maternity clinic at Ngimbang Lamongan Regional Hospital.

Data collection in this research is primary data, namely by using an instrument in the form of a questionnaire and carried out by means of interviews in accordance with the questionnaire. For data analysis, Simple

Logistic Regression Analysis and Multiple Logistic Regression Analysis were carried out with a significance level of 5% (α = 0.05). In Simple Logistic Regression Analysis, the constanta value will be screened or selected with a value of 0.25, then if the constanta result is <0.25, it will proceed to Logistic Regression Analysis (>0.05), meaning that there is no significant relationship between the variables. with variable early detection capabilities. Then analyzed using Logistic Regression, it shows a significance value of 0.060 (<0.25).

3. RESULTS

1. respondent's character

Tabel 1. respondent's character

Character general	f	%
15-19 year	4	10,0
15-19 year	23	57,5
15-19 year	13	32,5
Total	40	100
Character studt	**f**	**%**
SD	14	35,5
SMP	8	20,0
SMA	18	45,5
TOTAL	40	100
Character work	**f**	**%**
Housewife	27	67.5
Farmer	6	15.0
Self-employed	7	17,5
Total	40	100

The table above shows that the largest age group is 20-35 years old. Most of the respondents had a high school education, the most common job of the respondents was working as a housewife

2. Respondent's knowledge

Knowledge	f	%
low	18	45
tall	22	55
Total	40	100
Economy	**f**	**%**
low	36	90
tall	4	100
TOTAL	40	100
Early Detection Efforts	f	%
No detection	23	57.5
Detection	17	42.5
Total	40	100

From the table it can be seen that respondents have low knowledge, 18 respondents have low economic status, 36 respondents and most respondents do not carry out early detection of high risk pregnancy, 23 respondents.

3. The influence of pregnant women's knowledge on High Risk Pregnancy Detection.
   Table 3. Influence of Pregnant Women's Knowledge Level on Early Detection of Preeclampsia in the Gynecology Polyclinic at Ngimbang Lamongan Regional Hospital

	upaya deteksi dini risiko	p value

Variabel	tinggi kehamilan				jumlah		OR(95% CI)
	tidak melakukan		melakukan				
	f	%	f	%	f	%	
Pengetahuan. low							
	15	83.3	3	16.7	18	100	0.008 39.75)
Tall	8	36.4	14	63.3	22	10	

From the table it can be seen that there is an influence of knowledge on early detection of high risk pregnancy. The influence of respondents who have high knowledge have the opportunity to carry out early detection of high risk pregnancy 8 (36.4%) times compared to respondents who have low knowledge, who have the opportunity to carry out early detection. high risk of pregnancy 14(63.3%) times compared to respondents who did not receive knowledge about early detection during pregnancy .

The results of the research, efforts to detect high-risk pregnancies early are knowledge. This research shows that the better the knowledge of pregnant women about high-risk pregnancy checks, the higher the mother's ability to carry out early detection of high-risk pregnancies. This research is in line with research by Rr. Galuh Ajeng Indu Dewi, Agus Sulistyono, Mahmudah entitled Analysis of Factors that Influence the Ability of Pregnant Women to Detect the Risk of Postpartum Bleeding and Preeclampsia Early. Research shows that there is a significant relationship between knowledge and early detection ability According to previous researchers, knowledge about the benefits of early detection of high-risk pregnancies causes pregnant women to have a positive attitude and will influence mothers to carry out early detection of high-risk pregnancies and get antenatal care checks as early as possible with health workers. According to previous researchers, knowledge about the benefits of early detection of high-risk pregnancies causes pregnant women to have a positive attitude and will influence mothers to carry out early detection of high-risk pregnancies and get antenatal care checks as early as possible with health workers.

4. DISCUSSION

Based on overall research from 40 respondents, data was obtained that 22 respondents had high knowledge of pregnant women. Knowledge is one of three domains that influence human behavior. Knowledge has an important role in forming a person's actions (Medika Iis et al., 2023). According to previous research conducted by (Suhartini & Ahmad, 2019), the results showed that the majority of respondents had high knowledge. The frequency distribution in this study is age, economy and last education. In line with the results of research conducted by (lilik darwati, 2023), it was found that 60% had high knowledge about preeclampsia with related factors including age, working status, education and economics. There were 22 respondents who had good knowledge and 18 respondents who had good knowledge about low preeclampsia

According to research from (Muzayyana, 2020), the results showed that 68 respondents had good knowledge (70.8%). Research conducted by from 32 respondents resulted in the majority having sufficient knowledge before health education was carried out about preeclampsia, whereas after being given health education, pregnant women's knowledge increased. According to the researchers, the research results obtained were that the majority of pregnant women had good knowledge about preeclampsia. The data obtained is in line with research conducted by several researchers above. Analysis of the questionnaire given to pregnant women's knowledge about preeclampsia, obtained data on the

respondents' education, namely elementary school, middle school and high school. Age ranges from 20 to 35 years. Mother's profession is farmer, entrepreneur and housewife. The majority of respondents are housewives. As we know, the higher the education, the more mature the knowledge obtained. Health is now becoming popular in society. It is natural for someone who has a higher education to understand more about health information and try to live a healthy life. Health professionals who examine pregnancies definitely understand more about the dangers of pregnancy so they have good knowledge about preeclampsia. Respondents who hold the profession of being the wife of a

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member of the National Police certainly have good knowledge, they have their own organization where members usually become role models for other members in their environment and in society. Respondents revealed in the questionnaire given that they often accessed information about pregnancy via the internet, friends and doctors during pregnancy control. It is known from this that women nowadays, regardless of education, age and profession, they try to keep their pregnancies healthy by accessing information about pregnancy, even though there are still some pregnant women who have poor knowledge

Deteksi dini Preeklamsia

Based on the research results, it was found that 23 respondents did not carry out early detection of preeclampsia, and 17 respondents did early detection of preeclampsia. Early detection of preeclampsia is by carrying out routine antenatal care checks for early detection of risk factors, then for secondary prevention of preeclampsia, namely by increasing calcium supplementation, foods containing antioxidants, and having a balanced diet rich in protein(Fransiska, 2020). Then, if severe preeclampsia occurs in a pregnant woman, she must immediately be taken to hospital for further treatment.

Research conducted by (Mandiri & Khadijah, 2018) stated that 35 of the 57 respondents from pregnant women had a good attitude towards preeclampsia (76.1%). Research conducted (Dewi, 2018). States from 58 respondents with characteristics of age, education, work and parity. The results obtained from this research were good prevention of preeclampsia which received the highest score.

Based on the research conducted, the results obtained were that the majority of respondents had good preeclampsia supplements during their pregnancy.

prevention. This is in line with research conducted by (Darwati & Nikmah, 2020) and (Medika Iis et al., 2023), namely that early detection of preeclampsia obtained the highest number of results without early detection. This result occurs due to several factors, including education, age, employment, economics and environment. recognized interests, and current health trends. According to researchers, early detection of preeclampsia is based on the fact that pregnant women want to keep their pregnancy healthy until the time of birth, please their husband, and become a complete woman by having children. The intention to maintain health arises because it is based on the desire to be healthy, support from the family, and the situation experienced.

Many respondents had carried out early detection of preeclampsia, such as routinely checking their pregnancies, regularly checking their blood pressure, and carrying out laboratory checks. Early detection was carried out, this can be seen from the large number of respondents who answered that they had enough rest, enough activity, and consumed good food and

Analisa Bivariat
Pengaruh Tingkat Pengetahuan Ibu Hamil Terhadap Deteksi Dini Preeklamsia.

The results of the study stated that there was an influence between pregnant women's knowledge about preeclampsia and

prevention of preeclampsia. This is proven by the results of the analysis of p value = 0.000 (p value < 0.05) indicating that there is a significant influence between knowledge of pregnant women and prevention of preeclampsia.

In line with the research conducted above, the results that researchers obtained, there are several factors that might influence the relationship between pregnant women's knowledge about preeclampsia and prevention of preeclampsia, namely, education, age, employment, and information. The higher a person's education, the more mature the knowledge they have. Ages in the range of 20 years to 35 years have good physical condition and high enthusiasm for maintaining health. work and profession require being a person who is healthy, smart and knowledgeable about the latest information, especially regarding one's own health.

Data from questionnaires given by pregnant women are more active in accessing information on the internet, asking friends, and diligently checking themselves to maintain a healthy pregnancy. These factors cause the better knowledge of pregnant women and the more they try to maintain pregnancy by preventing preeclampsia. Education about preeclampsia still needs to be done even though most pregnant women have good knowledge and prevention of preeclampsia.

According to researchers, every pregnant woman who comes to the Obsgyn Polyclinic at Ngimbang Lamongan Hospital needs to be given education about preeclampsia and early detection of preeclampsia. Education about preeclampsia here will be very helpful for pregnant women who have the knowledge so that early detection of preeclampsia can be carried out optimally.

5. CONCLUSION

Based on data analysis and discussion, the research results can be concluded as follows:
1. Pregnant women who have low economic status will influence detection based on the data obtained by less than 36 respondents, namely that there is an influence between economic status and early detection in preventing preeclampsia.

2. Pregnant women who have knowledge influence detection based on the data obtained by 22 respondents, namely that there is an influence between knowledge and early detection in preventing preeclampsia.
3. There is an influence of pregnant women's knowledge on early preeclampsia detection behavior during pregnancy .

6. ACKNOWLEDGMENTS

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