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# The Relationship Between Knowledge Of Primigravida Pregnant Women About Preeclampsia And Early Detection Of Preeclampsia

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**ABSTRACT**

The death rate for pregnant women due to preeclampsia and eclampsia in developing countries is still high. The frequency of preeclampsia, especially for young primigravidas, is higher than for multigravidas. The aim is to increase knowledge about early detection of preeclampsia in pregnant women, which is very important for carrying out fast and appropriate treatment, especially in primigravida pregnant women. This research is a quantitative descriptive study with a cross sectional approach. The sample used was 27 primigravida pregnant women who underwent examinations at PMB Kustini, calculated using the Slovin formula. The sampling technique uses purposive sampling technique. The statistical test used is the chi-square test. Based on the results of the Chi Square test, the value P = 0.002 < of (α 0.05), so that Ho is rejected and Ha is accepted, so it can be concluded that knowledge is related to early detection of pre-eclampsia in primigravida pregnant women. provide educational knowledge about risky pregnancies, especially preeclampsia, as well as monitoring and early detection of primigravid pregnant women with preeclampsia.

**Keywords :** Knowledge, Preeclampsia, Primigravida Pregnant Women

## 1. INTRODUCTION

Maternal death is the death of a mother while pregnant or within 42 days after the end of pregnancy, regardless of location or gestational age. According to WHO (World Health Organization)(WHO, 2017). Every year more than 500,000 women in labor die, one of the causes of morbidity and mortality in mothers and fetuses is preeclampsia, the incidence rate ranges from 0.51% -38.4%. In developed countries the incidence of preeclampsia ranges from 6-7% and eclampsia 0.1-0.7%. The death rate for pregnant women due to preeclampsia and eclampsia in developing countries is still high (Novyanti et al., 2022). Data shows that 5-8% of pregnant women in the world experience preeclampsia, and 12% occur in primigravida. The frequency of preeclampsia, especially in young primigravidas, is higher than in multigravidas.(Rangkuti et al., 2023)

According to WHO, the maternal mortality rate (MMryR) in Indonesia is higher than in ASEAN countries, namely 102/100,000 live births (Arafah & Notobroto, 2018). MMR in Indonesia reached 359/100,000 live births. One of the factors causing AKI is preeclampsia. Preeclampsia is the leading cause of death in the world, and contributes 34% of maternal mortality in Indonesia (lilik darwati, 2023). Data shows that 5-8% of pregnant women in the world experience preeclampsia, and 12% occur in primigravida. The frequency of preeclampsia in primigravidas, especially young primigravidas, ishigher than in multigravidas (Dewi, 2018)

Preeclampsia and eclampsia are ongoing complications of pregnancy with the same causes. Therefore, early detection can reduce the incidence and reduce morbidity and mortality rates in pregnant women. To be able to make an early diagnosis, regular pregnancy monitoring is required by paying attention to swelling of the face and extremities, weight gain, increased blood pressure, and urine examination to determine proteinuria. To be more effective in improving the safety of mothers and newborns, antenatal care must be more focused because it has been proven to be useful in reducing the morbidity and mortality rates of mothers and newborns which are targeted nationally (Lilik Darwati, 2022)

Knowledge of primigravid pregnant women can influence behavior in early detection of preeclampsia. Previous research conducted (Muzayyana, 2020) stated that the knowledge of primigravida pregnant women regarding early detection of preeclampsia is still lacking, this is caused by several factors such as the age of pregnant women who are considered young adults so they do not know about early detection of preeclampsia, the second factor that influences knowledge is the level of education of pregnant women where in this study the average education of pregnant women was secondary education where there was still a lack of knowledge of pregnant women regarding preeclampsia and another factor was that pregnant women had never received information related to preventing preeclampsia

According to research (Suhartini & Ahmad, 2019) states that primigravida pregnant women have insufficient knowledge about preeclampsia due to health education factors and further insight into the situation they are experiencing to find a solution to this problem. Subsequent research from (Novyanti et al., 2022) showed that most pregnant women from sub-Saharan Africa found that they had insufficient knowledge about preeclampsia due to their lack of education.

Knowledge about early detection of preeclampsia in pregnant women is very

important for carrying out fast and appropriate treatment, especially in primigravida pregnant women. Routine antenatal care checks to look for signs of preeclampsia are very important as an effort to prevent the onset of severe preeclampsia and eclampsia. Early detection in primigravida pregnant women is very necessary to prevent the risk of complications of pregnancy and childbirth. Various complications can arise during pregnancy, one of which is preeclampsia. Pregnant women's knowledge of the clinical symptoms and signs of preeclampsia plays a major role in early detection of preeclampsia.

## 2. METHODS

This research is a quantitative descriptive study with a *cross sectional* approach. The sample used was 27 primigravida mothers who underwent examinations at PMB Kustini, calculated using the Slovin formula. The sampling technique uses purposive sampling technique. With inclusion criteria: willing to be a respondent, primigravida pregnant women, 3rd trimester of pregnancy. Healthy pregnant women.

The instrument in this research is a questionnaire that was created by the researcher himself and has been tested for validity and reliability. Data collection was carried out directly by visiting respondents and conducting interviews according to the questions contained in the questionnaire. The statistical test used is the chi-square test.

## 3. RESULTS

Characteristics

**Table 1. Distribution of Respondents Based on Age**

| No | Age | Frequency | Persentage |
|---|---|---|---|
| 1 | 20 – 35 Year | 21 | 78 |
| 2 | > 35 Year | 6 | 22 |
| | Total | 27 | 100 |

Based on Table 1 above, the majority of primigravida pregnant women are aged 20 – 35 years as many as 21 respondents (78%) and a small portion are aged >35 years as many as 6 respondents (22%).

**Table 2. level of education**

| No | education | Frequency | Persentage |
|---|---|---|---|
| 1 | Secondary education | 19 | 70,4 |
| 2 | higher education | 8 | 29,6 |
| | Total | 27 | 100 |

Based on Table 2 above, the majority of primigravida pregnant women had secondary education, namely 19 respondents (70.4%) and a small number had tertiary education, namely 8 respondents (29.6%).

**Table 3. Level of knowledge**

| No | knowledge | Frequency | Persentage |
|---|---|---|---|
| 1 | good | 21 | 78 |
| 2 | not enough | 6 | 22 |

| | | |
|---|---|---|
| total | 27 | 100 |

Based on table 4 above, it is known that the majority of primigravida pregnant women

| Level of knowledge | level of education | | | | Amount | | P-Vaue 0,002 |
|---|---|---|---|---|---|---|---|
| | Secondary education | | higher education | | | | |
| | n | % | n | % | n | % | |
| good | 15 | 78 | 4 | 21 | 19 | 70,4 | |
| not enough | 6 | 22 | 2 | 25 | 8 | 29,6 | |
| **Total** | 21 | 78 | 6 | 22 | 27 | 100 | |

have a good level of knowledge, as many as 21 respondents (78%), and a small number have poor knowledge, as many as 6 respondents (22%).

**TABLE 4 Relationship of Primigravida Pregnant Women's Knowledge About Preeclampsia to early detection of preeclampsia**

Based on table 4 in the cross tabulation of 27 respondents, it is known that the majority of respondents were primigravida pregnant women with secondary education, 19 respondents (70.4%) and a small number with tertiary education, 8 respondents (29.6%). The majority of primigravida pregnant women have a good level of knowledge, 21 respondents (78%), and a small percentage have poor knowledge, 6 respondents (22%). Based on the results of the Chi Square test, the value P = 0.002 < of (α 0.05), so that Ho is rejected and Ha is accepted, so it can be concluded that knowledge is related to early detection of pre-eclampsia in primigravida pregnant women.

## 4. DISCUSSION

### Level of Knowledge of Primigravida Pregnant Women Regarding Early Detection of Preeclampsia

The results of this study show that the majority of pregnant women have a good level of knowledge about preeclampsia, but there are still those who have a poor level of knowledge. The results of this research are supported by (Putri et al., 2019) who stated that the knowledge of pregnant women about preeclampsia in Samarinda was in the sufficient category at 70.2% and in the insufficient category at 21.3%. Lack of knowledge in this study was demonstrated by the inability of pregnant women to answer knowledge questionnaires about the meaning of preeclampsia, factors causing preeclampsia, signs and symptoms of preeclampsia, prevention of preeclampsia related to food and examinations.

Good knowledge in this study was caused by 58.3% of respondents having tertiary education, while the level of knowledge was poor because 26.7% of pregnant women had secondary education. The level of education influences a person's learning process, the higher the level of education, the easier it is for the person to receive information (Lilik Darwati, Fajrin & Wasiah, 2024). Knowledge is closely related to the level of

education because a person with a higher level of education will have more extensive knowledge (Darwati & Nikmah, 2020). Apart from that, knowledge is good and less influenced by pregnant women's high belief in local culture and myths. Pregnant women's beliefs regarding myths and habits of pregnant women can be seen from the results of questionnaires which show that pregnant women do not avoid coffee and high consumption of salted fish because they think it can be healthy for the mother and fetus.

The results of this study also show that there are mothers who have good knowledge. Respondents who have good knowledge are in the early adulthood age range, namely 20-35 years. Pregnant women in early adulthood will be more active in seeking information and thinking carefully to obtain new information. As you get older, your mental development process will also get better. This is in accordance with research (Medika Iis et al., 2023) which states that there is a relationship between education and a person's level of knowledge, with respondents aged 20-35 years.

The good knowledge possessed by respondents is also influenced by their level of education. Mothers who have good knowledge, have a tertiary education level. The level of education correlates with a person's knowledge. Individuals will tend to have better knowledge as their level of education increases (Wahyuni & Adi Pratama, 2019). Someone who has a higher education will more easily receive information so that it will influence changes in knowledge. Education can directly influence an individual's health behavior. Pregnant women with higher education are estimated to have a better level of knowledge about pregnancy and preeclampsia compared to pregnant women with less education.

Lack of knowledge about this research will have an impact on the mother's inability to detect preeclampsia early. Efforts need to be made to minimize the impact of lack of knowledge, namely by providing education regarding preeclampsia. according to (Fox et al., 2019) stated that health education about preeclampsia for pregnant women early detection of preeclampsia in maternal pregnancies, especially in primigravida pregnant women through monitoring blood pressure and routine examinations. In addition, health education for primigravida pregnant women is really needed with the aim of ensuring that pregnant women carry out routine pregnancy checks and increase understanding of early detection about the dangers of preeclampsia.

Primigravid pregnant women who have a low level of knowledge, answering questionnaire questions regarding preeclampsia, show that the questions most often answered incorrectly are questions about preeclampsia can cause fetal death and questions about treatment of preeclampsia from 12.3% of respondents. This shows that pregnant women do not know that preeclampsia can harm the pregnancy and cause fetal death. The results of the statements from filling out the research questionnaire, the next statement that was answered most incorrectly in this study was the risk factor for preeclampsia. Similar results were also obtained in previous research which stated that pregnant women had insufficient knowledge regarding the risk factors for preeclampsia. (Medika Iis et al., 2023)

The results of this research motivate health workers, especially midwives, to increase their knowledge of education for primigravida pregnant women about preeclampsia, especially regarding risk factors for preeclampsia. Health workers are also expected to be able to improve the physical and mental health of pregnant women through stress management, monitoring the administration of folic acid, relaxation techniques to improve the quality of sleep in pregnant women

through education and improving the physical and mental health of pregnant women. It is hoped that the knowledge and well-being of pregnant women will increase. , so that the number of pre-eclamation incidents can be reduced.

## 5. CONCLUSION

This research shows that the level of knowledge of primigravida pregnant women about preeclampsia is mostly good. However, there are also mothers who have less knowledge. Health workers are expected to provide education about risky pregnancies, especially preeclampsia, as well as carry out monitoring and early detection of primigravida pregnant women with preeclampsia. Apart from that, health workers can provide correct information regarding myths and culture that exist in society. Pregnant women are expected to actively seek information about preeclampsia from reliable sources.

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