The Influence of Pregnant Women's Knowledge Level on High Risk in Pregnancy at PONEK RSU Cut Meutia

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ABSTRACT: High-risk pregnancy is one of the leading causes of increased maternal and infant morbidity and mortality. Pregnant women's knowledge of healthy pregnancy and danger signs plays a crucial role in preventing and reducing these risks. This study aims to determine the effect of pregnant women's knowledge level on high-risk pregnancy at the Emergency Obstetric and Neonatal Care (PONEK) unit of Cut Meutia General Hospital. This research employed a quantitative design with a cross-sectional approach. The sample consisted of 46 pregnant women selected through purposive sampling. Data were collected using questionnaires and medical record observations. The data were analyzed using the Chi-Square test with a significance level of $\alpha = 0.05$. The results showed that most pregnant women with low knowledge experienced highrisk pregnancies (75%). The Chi-Square test revealed a significant relationship between knowledge level and the incidence of high-risk pregnancy (p = 0.001). Thus, there is a significant effect of pregnant women's knowledge level on the risk of high-risk pregnancy. Continuous educational efforts by health professionals are needed to improve maternal knowledge and reduce the incidence of high-risk pregnancies.

Keywords : Knowledge, Pregnant Women, High-Risk Pregnancy

1. INTRODUCTION

Pregnancy is a physiological process experienced by women, but in its course it can turn into a pathological condition if it does not receive proper treatment and attention. One condition that needs to be watched out for is high-risk pregnancy, which is a condition that can endanger the mother and fetus due to medical, obstetric, social, and psychological factors (Wiknjosastro, 2020).

According to the Indonesian Ministry of Health (2021), the maternal mortality rate (MMR) in Indonesia is still a serious problem, with most deaths caused by complications of pregnancy and childbirth that are actually preventable. One strategy to reduce MMR is to detect and treat high-risk pregnancies early. This detection is not only the responsibility of health workers, but also depends heavily on the knowledge of the pregnant woman herself.

Maternal mortality remains one of the main indicators of the success of a country's health care system. According to data from the World Health Organization (WHO), in 2020 there were an estimated 287,000 maternal deaths worldwide, most of which occurred in developing countries. This figure reflects the unequal access to quality maternal health services, especially in dealing with complications during pregnancy, childbirth, and the postpartum period. Maternal death is not only a medical event, but also a social and economic tragedy that can have a broad impact on families and communities. This makes reducing maternal mortality one of the important targets in the Sustainable Development Goals (SDGs), with a global target of reducing MMR

Received: May 03, 2025 Revised: May 21, 2025 Accepted: June 03, 2025 Online Available: June 09, 2025 Curr. Ver.: June 09, 2025



Copyright: © 2025 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY SA) license (https://creativecommons.org/li censes/by-sa/4.0/) to below 70 per 100,000 live births by 2030 (WHO, 2020).

Pregnant women's knowledge about high-risk pregnancies greatly influences their decisions in accessing health services in a timely manner, such as conducting routine antenatal visits, recognizing pregnancy danger signs, and being willing to be referred to adequate health facilities (Manuaba, 2018). Mothers who have low knowledge tend to ignore early symptoms of pregnancy risk, thus increasing the potential for serious complications.

At the national level, Indonesia also still faces challenges in reducing maternal mortality rates. Based on data from the 2023 Indonesian Health Survey (SKI), the Maternal Mortality Rate (MMR) in Indonesia was recorded at 189 per 100,000 live births. Although this figure shows a decline from previous years, it is still far from the targets set in the RPJMN and SDGs. The main problems faced include delays in recognizing danger signs of pregnancy, delays in making decisions to seek help, and limited facilities and health workers who are able to handle obstetric complications quickly and appropriately (Ministry of Health of the Republic of Indonesia, 2023).

The same condition also occurs in Aceh Province. Based on the Aceh Provincial Health Profile in 2023, the maternal mortality rate in this province reached 221 per 100,000 live births, which is higher than the national average. Several causes that contribute to the high MMR in Aceh include limited access to health services, especially in remote areas, low public understanding of reproductive health, and uneven distribution of health facilities and workers. Although various interventions have been carried out, such as improving PONEK facilities and training health workers, they have not been able to significantly reduce MMR in all districts/cities in Aceh (Aceh Health Office, 2023).

In North Aceh Regency, similar problems were also found. Based on the annual report of the North Aceh Regency Health Office in 2023, there were 10 cases of maternal death in the past year, with an estimated MMR of around 143 per 100,000 live births. This district is one of the areas with a high population and a wide coverage area for health services, so the provision of optimal maternal services still faces its own challenges. One of the main causes of maternal death in this area is the delay of pregnant women in recognizing the symptoms of high-risk pregnancy and the reluctance to immediately check themselves at a health facility. Low levels of education, knowledge, and the persistence of belief in traditional practices are inhibiting factors in efforts to prevent pregnancy complications (North Aceh Health Office, 2023).

PONEK (Comprehensive Emergency Obstetric Neonatal Services) RSU Cut Meutia is one of the referral hospitals in North Aceh Regency that handles various high-risk pregnancy cases. Based on PONEK medical record data in 2023, it was found that there are still many high-risk pregnant women who come in emergency conditions, which shows that mothers' knowledge about the importance of early detection of pregnancy risks is still low.

Thus, this study is important to determine the extent to which the level of knowledge of pregnant women influences the high risk of pregnancy in PONEK RSU Cut Meutia. The results of this study are expected to be the basis for planning a health education program for pregnant women in order to prevent pregnancy complications and improve the safety of mothers and babies.

2. METHOD

This study is a quantitative analytical study with a cross-sectional approach. This approach is used to determine the relationship between the level of knowledge of pregnant women and the incidence of high-risk pregnancies in one observation period. The population in this study were all pregnant women who checked their pregnancies at PONEK RSU Cut Meutia during the study period. Sample : A total of 46 respondents were selected using the technique purposive sampling , namely a sampling technique based on certain criteria.

The instrument used is a questionnaire structured consisting of two parts: Questionnaire on the level of knowledge of pregnant women regarding high-risk pregnancy. High-risk pregnancy status data based on medical records and observations of health workers.

Data analysis was conducted in two stages, namely Univariate analysis : used to

describe the frequency distribution of each variable (level of knowledge and risk of pregnancy). Bivariate analysis : used to determine the relationship between the variable level of knowledge and high risk of pregnancy using the Chi-Square test (χ^2), with a significance level (α) of 0.05.

3. RESULTS

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Characteristics	Frequency	Percentage (%)				
Age						
<20 year	4	8.7				
20-35 year	34	73.9				
>35 year	8	17.4				
Amount	46	100				
Education Final						
The end Elementary	16	34.8				
School/Equivalent						
High School/Equivalent	18	39.1				
Diploma/College Tall	12	26.1				
Amount	46	100				

Table 1. Distribution Characteristics Respondents

Table 1 show that majority The age of the research respondents was 20-35 years with a frequency of 34 people (73.9%), high school education with a frequency of 18 people (39.1%).

Table 2 . Fro	equency	Distri	bution	of ŀ	Knowl	edge	Level
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Knowledge	Frequency	Presentation		
Good	12	26.1		
Enough	18	39.1		
Not enough	16	34.8		
Total	46	100		

Table 2 shows that the level of knowledge is in the sufficient category with a frequency of 18 people (39.1%).

Table 3. Frequency Distribution of Pregnancy Risks

Pregnancy Risks	Frequency	Presentation		
Low Risk	27	58.7		
High Risk	19	41.3		
Total	46	100%		

Table 3 shows that the majority of pregnancy risks are in the low risk category with a low frequency of 27 people (58.7%).

Table 4. Relationship between Knowledge Level and High Risk Pregnancy

No	Supervision	Risk P	regnancy		p Value
		Tall	Low	Total	

		n	%	n	%	n	%	
1	Good	12	63.1	4	14.8	16	100	
2	Enough	6	31.6	12	4 4.4	18	100	0.0 01
3	Not enough	1	5.3	11	40.8	12	100	
Amou	nt	19	100	27	100	46	100	

Table 4 shows that knowledge with high risk of pregnancy is lacking, as many as 12 people (75%) experienced high-risk pregnancy. Conversely, of the 12 pregnant women who had good knowledge, only 1 person (8.3%) experienced high-risk pregnancy. Statistical Test Results: Chi-Square. P value = 0.001 (significant at α = 0.05). There is a significant relationship between the level of knowledge of pregnant women with high-risk pregnancy.

4. DISCUSSION

Results study This shows that there is a significant relationship between the level of knowledge of pregnant women and the incidence of high-risk pregnancies. Of the 16 pregnant women who had poor knowledge, 12 (75%) experienced high-risk pregnancies. Conversely, of the 12 pregnant women who had good knowledge, only 1 (8.3%) experienced a high-risk pregnancy. The knowledge of pregnant women is an important factor in recognizing pregnancy danger signs, complying with antenatal care recommendations, and maintaining the health of themselves and their fetuses. Mothers with low knowledge tend not to understand the importance of a balanced diet, early detection of complications, and do not routinely check their pregnancy, which ultimately increases the risk of complications. These results are in line with research by Wulandari (2021) which states that the level of knowledge affects the risk of pregnancy complications. Likewise, according to **Nursalam (2020)**, mothers who have sufficient information tend to be more compliant in undergoing examinations and complying with medical recommendations.

In addition to knowledge, age is also a factor. In this study, 8 respondents were >35 years old and 6 of them experienced high-risk pregnancies. This shows that old age is a predisposing factor for high-risk pregnancies, such as preeclampsia, gestational diabetes, or placental abnormalities. This finding is in accordance with the results of Nursalam's research (2020) which states that knowledge of pregnant women is an important factor that influences health behavior during pregnancy. Mothers who are aware of the risks of pregnancy will be more careful and tend to follow the ANC program recommended by health workers.

The results of this study are also supported by the Health Belief Model theory (Becker, 1974), which states that an individual's perception of the vulnerability and severity of a health problem will influence the preventive behavior taken. In this context, pregnant women who have good knowledge will have a high risk perception and be motivated to take preventive measures. Research by Wulandari et al. (2021) also shows that pregnant women who have good knowledge tend to have a lower risk of pregnancy complications, because they are more active in seeking information, maintaining nutritional balance, and making decisions faster when experiencing suspicious symptoms. In addition to knowledge, age factors also affect high-risk events. In this study, of the 8 respondents aged >35 years, 6 people experienced high-risk pregnancies. This is in line with the literature stating that pregnancy at the age of >35 years is categorized as high risk because it is associated with increased complications such as preeclampsia, gestational diabetes, and fetal growth disorders (Yulianti, 2020).

Level Education is also thought to influence the level of knowledge of pregnant women. Most respondents with good knowledge are high school and college graduates. This strengthens the hypothesis that education plays an important role in shaping understanding and access to health information. These findings indicate that increasing the knowledge of pregnant women needs to be a priority in antenatal care programs, especially in referral hospitals such as PONEK RSU Cut Meutia. Educational interventions in the form of counseling, personal counseling, pregnancy classes, and distribution of information media (leaflets, educational videos, and digital applications) are needed to increase mothers' knowledge about healthy pregnancies and the risks that may arise. In addition, health workers need to pay attention to aspects of an effective communication approach. Education is not only delivered in a one-way manner, but with interactive, participatory, and local culture-based methods so that it is more easily accepted by pregnant women.

CONCLUSION

This study concluded. Most pregnant women with poor knowledge experienced high-risk pregnancies. Of the 16 respondents with poor knowledge, 12 (75%) experienced high-risk pregnancies. Conversely, in the group of mothers with good knowledge, the majority (91.7%) had low-risk pregnancies. There was a significant relationship between the level of knowledge of pregnant women and the incidence of high-risk pregnancies. The results of the statistical test showed a value of p = 0.001 (p <0.05), which means that the level of knowledge of pregnant women affects the risk status of their pregnancy. It is expected that pregnant women can increase their knowledge about healthy pregnancies and pregnancy danger signs through active participation in pregnancy classes, reading educational materials, and discussing with health workers. Pregnant women are also advised to routinely carry out antenatal checks according to the established schedule.

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