

**DESCRIPTION OF THE LEVEL KNOWLEDGE OF PREGNANT  
WOMEN ABOUT EARLY DETECTION OF DANGER SIGNS OF  
PREGNANCY IN THE WORK AREA OF TELAGA  
DEWA HEALTH CENTER BENGKULU CITY**

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**Abstract**

**Background** : Maternal Mortality Rate (MMR) in Indonesia has experienced a significant decline per 100,000 KH in 2010 to 189 per 100,000 KH in 2020 or a decrease of 45% in the last 10 years. Danger signs of pregnancy are signs that can identify dangers that can occur during pregnancy which if not reported or detected can cause death to the mother. The purpose of this study was to determine the level of knowledge of pregnant women about early detection of danger signs of pregnancy in the work area of the Telaga Dewa Health Center, Bengkulu City. **Method** : Descriptive research method, namely the researcher describes or provides an overview of the object being studied based on the data obtained. The data source in this study consists of primary data using a questionnaire. The sample in this study amounted to 110 pregnant women obtained using the Slovin formula with the Quota sampling technique. **Result** : The results of the study The description of the level of knowledge of pregnant women in the work area of the Telaga Dewa. Health Center, Bengkulu City showed that the highest level of knowledge was in the good category (70%), sufficient knowledge (23.6%), and insufficient knowledge (6.4%). **Conclusion** : Based on the results of the study, it was found that pregnant women with good knowledge were 70% and those with insufficient knowledge were 6.4%.

**Keywords:** Knowledge, Pregnancy, Pregnancy danger signs

## INTRODUCTION

Maternal Mortality Rate (MMR) can be defined as the number of maternal deaths in a certain period per 100,000 live births (KH) in the same period that occurred in women during pregnancy or within 42 days after the end of pregnancy, regardless of the duration and location of the pregnancy (Kemenke RI, 2021).

MMR is one of the indicators used to describe the welfare of a country's population. According to World Health Organization (WHO) data, the global MMR in 2021 was 216 per 100,000 live births, or an estimated 303,000 maternal deaths. The MMR in developing countries is 20 times higher than the maternal mortality rate in developed countries, which is 239 per 100,000 live births, while in developed countries it was only 12 per 100,000 live births in 2021 (WHO, 2021).

MMR in Indonesia has experienced a significant decline from 346 per 100,000 live births in 2010 to 189 per 100,000 live births in 2020 (results of the 2021 Long Form Population Survey), a 45 percent decline over the past ten years. However, efforts to reduce MMR in Indonesia are still ongoing, as the high MMR in Indonesia is still comparable to several African countries (BPS, 2023). The target of reducing MMR in Indonesia remains a priority. Efforts to achieve the 2024 RPJMN target for MMR of 183 deaths per 100,000 live births and the SDGs target of 70 deaths per 100,000 live births (BPS, 2024). The top three causes of maternal death are Eclampsia (37.1%), Hemorrhage (27.3%), Infection (10.4%) with the highest place/location of death being in Hospital (84%) (Sari et al., 2023).

MMR in Bengkulu Province in

2024 was 39 people. Bengkulu City was in 6th position with a fairly high number of Maternal Mortality Rates (MMR), namely 3 cases in 2023. Rejang Lebong Regency was the regency with the highest MMR in Bengkulu City and the lowest was South Bengkulu Regency (Dinkes Prov. Bengkulu, 2023).

The main factors contributing to high maternal mortality rates in Indonesia include antenatal visits, a history of complications, anemia, delivery in a health facility, unskilled health workers, and others. These factors include both direct and indirect factors. According to the Indonesian National Institute of Health (Karim, 2024), maternal mortality has several factors, including maternal age during pregnancy, parity, health services, antenatal care, caregivers, facilities and infrastructure, and social, economic, and cultural factors (Karim, 2024).

The factor that is an indirect cause, but is the fundamental cause of maternal death is the first delay in referral which must be immediately prevented so as not to cause subsequent delays, namely late family decision-making and late recognition of danger signs in pregnancy, in addition to other determinants such as pregnancy examination factors and first aid factors during childbirth that are not carried out by health workers (Marlina., 2021).

Pregnant women who do not undergo antenatal care for screening and early detection affect the quality of life of the mother and her fetus. Antenatal care can detect danger signs during pregnancy to reduce risk factors that will occur, if not done it will increase the risk of complications during pregnancy (Kemenkes RI, 2023).

The level of knowledge of pregnant

women regarding the importance of screening and early detection varies greatly and is influenced by various factors, such as education, access to information, and support from family or the surrounding environment (Aulya et al. 2020). This is in line with research conducted by Gessese, et al. (2023) which states that maternal and husband's education, occupation, maternal age, place of residence, parity, gravidity, number of family members, family income, authority in making decisions, number of ANC visits, time of start of ANC visits, place of delivery, sources of information about obstetric danger signs and distance to health facilities are some of the predictors of maternal knowledge about obstetric danger signs in pregnancy.

The results of Nisma., et al.'s (2023) research on the level of knowledge of pregnant women found that most respondents had sufficient knowledge, some had good knowledge and the rest had a low level of knowledge. The knowledge possessed by pregnant women regarding danger signs in pregnancy is one of the factors that influences the high risk of pregnant women experiencing danger signs during pregnancy. The deeper the knowledge regarding danger signs in pregnancy, the lower the possibility of danger to pregnant women. Conversely, if pregnant women have limited knowledge or do not know at all about danger signs in pregnancy, the risk of danger during pregnancy will be high. When pregnant women have a better understanding of danger signs in pregnancy, they will be able to take the necessary preventive measures to maintain the safety of their health and the fetus they are carrying (Larasati, 2020).

## METHOD

This study uses a descriptive research method, which was conducted from March to April 2025. This study focused on 110 pregnant women who had been selected using the Slovin formula with data collection techniques using the quota sampling method in the Telaga Dewa Community Health Center Work Area, Bengkulu City.

This study categorizes the level of knowledge into three groups: good, sufficient, and insufficient. The research instrument used a checklist questionnaire adopted from Agustina Ayu Puspita (2023) which has undergone validity and reliability tests. This study was declared ethically feasible according to the seven WHO standards of 2011 which are in line with the 2016 CIOMS Guidelines and is valid from January 22, 2024 to January 22, 2025, with ethical exceptions. Number NO.3017/UN25.8/KEPK/DL/2025 issued by the Faculty of Dentistry, University of Jember, East Java.

Statistical data were analyzed using SPSS version 23.0, using a frequency distribution method covering the characteristics of age, parity, education, occupation, and knowledge. Data processing involved four stages: verifying the completeness of the questionnaire (editing), entering data into Excel and SPSS (entry), and conducting a final check (cleaning).

## RESULT AND DISCUSSION

Among the 110 pregnant women who were respondents in the study, there were respondents who met the inclusion and exclusion criteria. Of the 110 pregnant women who were respondents, 77 respondents (70%) had a good level of knowledge, 28 respondents (23.6%) had a

sufficient level of knowledge and 7 respondents (6.4%) had a low level of knowledge, as can be seen in the following table:

**Table 1 . Characteristics of Respondent Frequency Distribution Based on Age, P Education, Occupation, and Knowledge of Pregnant Women in the Work Area of Telaga Dewa Community Health Center, Bengkulu City**

	Characteristics	n (samples)	Persentase
<b>1.</b>	<b>Age</b>		
	<20 years	0	0%
	20 s.d 35 years	92	83,6%
	>35 years	18	16,4%
	<b>Total</b>	<b>110</b>	<b>100%</b>
<b>2.</b>	<b>Paritas</b>		
	first pregnancy	27	24,5%
	number of children 1 person	39	35,5%
	number of children 2 person	30	27,3%
	number of children 3 person	12	10,9%
	number of children 4 person	2	1,8%
	<b>Total</b>	<b>110</b>	<b>100%</b>
<b>3.</b>	<b>Education</b>		
	No School	0	0%
	Elementary School	3	2,7%
	Junio High School	19	17,3%
	Senior High School	58	52,7%
	College/University	30	27,3%
	<b>Total</b>	<b>110</b>	<b>100%</b>
<b>4.</b>	<b>Work</b>		
	Housewife	88	80%
	Entrepreneur	6	5,5%
	Employe	10	9,1%
	government employees	3	2,7%
	farmers/laborers	3	2,7%
	<b>Total</b>	<b>110</b>	<b>100%</b>
<b>5.</b>	<b>Knowledge</b>		
	Good	77	70%
	Fair	26	23,6%
	Poor	7	6,4%
	<b>Total</b>	<b>110</b>	<b>100%</b>

The results of data analysis from 110 pregnant women respondents in the Telaga Dewa Health Center Work Area, Bengkulu City, showed that most respondents were aged 20 to 35 years, as many as 92 people (83.6%), and a small number of respondents were over 35 years old, namely 18 people (16.4%). Most respondents who had 1 child were 39 people (35.5%) and a small number of respondents who had 4 children were 2 people (1.8%). The results of the study also showed that most respondents were high school graduates as many as 58 people (52.7%) and a small number of respondents were elementary school graduates as many as 3 people (2.7%). A large number of respondents were housewives as many as 88 people (80%) and a small number worked as civil servants as many as 3 people (2.7%) and as farmers/laborers as many as 3 people (2.7%). Based on the results of the study, the level of knowledge of respondents about early detection of danger signs of pregnancy respondents Those who have knowledge in the good category are 77 people (70%), in the sufficient category are 28 people (23.6%), and in the less category are 7 people (6.4%).

The results of univariate data analysis showed that of the 110 pregnant women respondents in the Telaga Dewa Health Center work area of Bengkulu City, the majority of respondents had good knowledge, namely 77 pregnant women had good

knowledge with a percentage of 70%, pregnant women with sufficient knowledge were 28 people with a percentage of 23.6% and pregnant women with insufficient knowledge were 7 people with a percentage of 6.4%. The results of research conducted by Nisma, et al (2023) said that respondents who had sufficient knowledge were 17 people with a percentage of 33.3%, good knowledge were 7 people with a percentage of 23.3% and those with insufficient knowledge were 6 people with a percentage of 20%.

The results of this study indicate that there are still pregnant women with insufficient knowledge about early detection of pregnancy danger signs, which is very important to prevent the risk of unwanted emergencies for the mother and her fetus.

The results of the research conducted by researchers showed that most respondents were aged 20-35 years (83.6%). A person's knowledge is influenced by several factors, including age. The older a person is, the better their mental development process is. However, at certain ages, such as old age, the ability to receive or remember knowledge will decrease (Dahlan, 2021). In addition, pregnant women who are too old (over 35 years old) and too young (under 20 years old) can be a factor in high-risk pregnancies (Isnaini, 2020). The impacts of high-risk pregnancies include miscarriage, fetal distress, premature pregnancy, and poisoning during pregnancy (Susanti, 2020). In

addition, a person's memory is influenced by age. Increasing age can affect the increase in knowledge they acquire, but at a certain age or approaching old age, the ability to receive or remember knowledge will decrease (Fuadah, 2022). This is in line with the research results of Santi Iswidayanti (2021), which shows the characteristics of pregnant women respondents based on age at the Mengwi II Health Center, most of the respondents were aged 20-35 years, as many as 42 people (80.8%).

Parity is a woman's condition related to the number of children she has given birth to. Based on research conducted by researchers, the majority of respondents (39) had one child (35.5%). The study (Heryanti and Mahesa, 2022) suggests that parity can increase mothers' knowledge, especially regarding pregnancy danger signs. This is because a higher parity level allows mothers to gain more experience and information, whether from health workers during ANC examinations, childbirth experiences, or other experiences that can increase mothers' knowledge about pregnancy danger signs. A mother's personal experiences can be used as an effort to gain knowledge. This can be done by reviewing past experiences or experiences to solve problems faced in the future. Experiences during pregnancy will impact a mother's mindset or perspective, attitudes, and actions during subsequent pregnancies. Knowledge of the danger signs in pregnancy really

helps reduce MMR, because by knowing the danger signs in pregnancy, a pregnant mother will be able to find places for health services more quickly so that the risks of pregnancy will be detected and treated earlier. Knowledge is the result of human curiosity about anything through certain methods and with certain tools. This knowledge is of various types and nature, some are direct and some are indirect, some are not fixed (change), subjective and specific, and some are fixed, objective and general. The type and nature of this knowledge depends on the source and with what methods and tools the knowledge is gained, as well as there is correct knowledge and there is wrong knowledge (Darsini et al. 2020).

Knowledge is closely related to education, where it is expected that higher education will broaden a person's knowledge. However, it should be emphasized that a person with less education does not necessarily have less knowledge. A person's knowledge of an object consists of two aspects: positive and negative. These two aspects will determine a person's attitude; the more knowledge about the positive aspects of an object, the more positive attitudes will emerge toward that object (Darsini et al. 2020).

The results of the research conducted by the researcher found that 3 people with elementary school education had a low level of knowledge. This is in line with the results of research (Nisma et al.,

2023) which found that 4 pregnant women with elementary school education with a percentage (13.3%) had a low level of knowledge. Larasati's research (2020) showed that mothers with low education (elementary, junior high) were 5.939 times more likely to perform poor early detection of pregnancy danger signs compared to mothers with education (high school graduate, university). This was also stated by (Sukarsih, 2021) that the ability to detect early pregnancy danger signs is something new for pregnant women. The level of education will significantly influence the knowledge of pregnant women, especially in the ability to detect early pregnancy danger signs (Sukarsih, 2021).

Another study by Gesese et al. (2023) stated that in many developing countries, maternal morbidity and mortality are challenging issues, and improving mothers' knowledge of pregnancy danger signs is an important first step to reducing the negative impacts of pregnancy. The results of the study by Gesese et al. (2023) of 414 respondents showed that 57.2% of respondents had good knowledge, but 42.8% of respondents had poor knowledge about detecting pregnancy danger signs. A large number of respondents, namely 211 people, had an adequate level of education, this is also related to a person's level of knowledge. As the mother's education level increases, the mother's likelihood of obtaining better knowledge is also greater. This is in line with the results of the

researcher's study where 6 respondents with less knowledge had a low level of education.

A pregnant woman's knowledge of pregnancy warning signs is one factor that influences her risk of experiencing them. (Hurin'in&Agustina, 2025). The more comprehensive her knowledge of pregnancy warning signs, the lower the risk of experiencing them. Conversely, if a woman has limited or no knowledge of pregnancy warning signs, her risk of experiencing them increases. When pregnant women have a better understanding of pregnancy warning signs, they are better able to take the necessary preventative measures to ensure their own health and that of their unborn child (Larasati, 2020; Hurin'in et al, 2025; Ramadhana et al., 2024).

The results of the study conducted by the researcher showed that most respondents were unemployed or housewives, namely 88 people (80%) had a good to sufficient level of knowledge. This research is in line with the research of Rohmah (2023) who found that the majority of pregnant women in this study were unemployed, as many as 21 (53.8%) were in the sufficient category, this was due to a lack of interaction with others. Work is generally a time-consuming activity, and work for mothers will have an impact on family life.

The social environment will support a person's high level of knowledge. A healthy economy leads to a higher level of education.

Mothers who are unemployed or housewives are less likely to seek information or sources of knowledge from various media (Fitrianingsih et al., 2020). Higher education also leads to higher levels of knowledge. Work is generally a time-consuming activity, and for mothers, work can impact family life. Work can also be a source of conflict for mothers. Excessive conflict can lead to disinterest in work and concerns about not being able to attend to their pregnancy (Neneng et al., 2022; Hurin'in&Damayanti, 2023).

Based on the results of the study, the description of the level of knowledge of pregnant women regarding early detection of danger signs of pregnancy in the work area of the Telaga Dewa Community Health Center in Bengkulu City, which has been carried out by researchers, shows that the majority of respondents, totaling 110 pregnant women, have good knowledge, namely 77 people with a percentage of 70%. This study is in line with the results of the study by Fatimah and Sholikhatun (2021) which showed that of the 34 pregnant women respondents, the majority have good knowledge, namely 24 people with a percentage of 70.6% and there are still as many as 4 pregnant women who have poor knowledge with a percentage of 11.8%. This can be interpreted that there are still pregnant women who are less knowledgeable, which will have an impact on preventing the risk of emergency pregnancies that threaten the lives of

the mother and fetus considering the high MMR in Indonesia, which reached 189 per 100,000 KH in 2020 (Sari et al., 2023).

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