

Mothers' Perceptions of Danger Signs in the Third Trimester of Pregnancy

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ARTICLE INFO

Keywords:

Danger Signs of Pregnancy, Perception, Third Trimester of Pregnancy.

ABSTRACT

Background: Pregnancy is a critical period in human development, characterized by the physiological and psychological interactions between the mother and the fetus. During this period, the mother plays an essential role in supporting fetal growth and development until childbirth. In the third trimester, pregnant women must be aware of potential danger signs that may indicate pregnancy-related complications. This study aimed to explore mothers' perceptions of danger signs during the third trimester of pregnancy.

Methods: A descriptive qualitative research design was employed. The study population consisted of 28 third-trimester pregnant women, from whom seven participants were selected as the study sample. The sampling technique used was accidental sampling. The study was conducted at the Independent Midwifery Practice of Hj. Sesmera, located on Jalan Aluminium IV, Tanjung Mulia, Medan City, North Sumatra, Indonesia. Data collection was carried out from May to August 2024.

Results: The findings revealed three major themes: mothers' perceptions regarding the recognition of danger signs, management of danger signs, and sources of information related to danger signs during the third trimester of pregnancy. These themes were further categorized into several subthemes.

Conclusion: Mothers' perceptions of pregnancy danger signs were influenced by multiple sources of information, including healthcare providers, family members, technology, and the community. Among these factors, support from family and healthcare professionals emerged as the most influential in shaping mothers' perceptions and enhancing their awareness of danger signs during the third trimester of pregnancy

INTRODUCTION

Pregnancy is a critical period that requires optimal maternal health to support fetal growth and development. Despite advances in maternal healthcare, the global maternal mortality rate (MMR) remains a major public health concern (Indrianti & Anjarwati, 2023). In 2020, an estimated 287,000 women died from complications related to pregnancy and childbirth, with approximately 95% of these deaths occurring in low- and middle-income countries. Sub-Saharan Africa and South Asia accounted for approximately 87% of all maternal deaths worldwide (WHO, 2023).

Globally, maternal mortality is primarily attributed to complications such as hemorrhage, hypertension, preeclampsia, infection, prolonged labor, and unsafe abortion. According to the World Health Organization (WHO), approximately 810 women die every day from preventable causes related to pregnancy and childbirth. Common complications during the third trimester include hemorrhage

(27.1%), pregnancy-induced hypertension (14.0%), preeclampsia (15.8%), anemia and chronic energy deficiency (CED) (32–35%), and infectious diseases (7.6%) (WHO, 2023).

Indonesia continues to experience a relatively high maternal mortality rate, with fluctuations observed over time. Data from the Indonesian Demographic and Health Survey (SDKI) and Basic Health Research (Riskesmas) indicate that hemorrhage, hypertension, eclampsia, infection, and chronic energy deficiency are among the leading causes of maternal mortality. In 2023, the major causes of third-trimester pregnancy complications were preeclampsia (24.0%), hemorrhage (23.0%), hypertension (12.7%), gestational diabetes mellitus (3.6%), and premature rupture of membranes (5.6%) (USAID & Indonesia, 2022). Similar conditions have been reported in North Sumatra Province and Medan City, where pregnancy-related complications remain prevalent. Data from the North Sumatra Health Office (2022) showed that 15.5% (3,883) of pregnant women experienced pregnancy complications, while 6.43% experienced complications during the third trimester.

Danger signs during the third trimester have been identified in the Maternal and Child Health (MCH) Handbook and include vaginal bleeding, severe headache, visual disturbances, edema of the face and hands, severe abdominal pain, decreased fetal movement, fever, persistent vomiting, and premature rupture of membranes (Retnaningtyas et al., 2022). Several factors influence a mother's ability to recognize these danger signs, including age, educational level, occupation, knowledge, antenatal care utilization, income, and parity (Diana et al., 2022).

These findings are consistent with a study conducted by Larasati (2020) on the analysis of early detection of pregnancy danger signs at the Senen District Health Center. The study found that pregnant women who did not perform early detection of danger signs were predominantly those with high-risk maternal ages (<20 years or >35 years) (76.2%), low educational attainment (elementary or junior high school graduates) (82.4%), unemployment (57.1%), inadequate knowledge, negative attitudes toward pregnancy care, and limited access to information beyond healthcare providers. Furthermore, the study demonstrated significant relationships between maternal age, educational level, knowledge, attitudes, and the early detection of pregnancy danger signs (Larasati, 2020).

To reduce maternal mortality, the Indonesian government has strengthened integrated antenatal care (ANC) services and established a minimum standard of six ANC visits during pregnancy, consisting of one visit in the first trimester, one visit in the second trimester, and four visits in the third trimester. Despite these efforts, a preliminary study conducted at the Independent Midwifery Practice (PMB) of Hj. Dewi Sesmera revealed that some third-trimester pregnant women still had limited knowledge regarding pregnancy danger signs, which may contribute to delays in seeking appropriate healthcare.

Based on these conditions, this study aimed to explore pregnant women's perceptions of danger signs during the third trimester of pregnancy at PMB Hj. Dewi Sesmera. Understanding these perceptions is expected to contribute to increased maternal awareness and support efforts to prevent pregnancy-related complications.

METHODS

This study employed a descriptive qualitative research design to explore the perceptions of third-trimester pregnant women regarding pregnancy danger signs. The study population consisted of 28 pregnant women in their third trimester, from which seven participants were selected using an accidental (convenience) sampling technique. The research was conducted at the Independent Midwifery Practice (PMB) of Hj. Sesmera, located in Tanjung Mulia, Medan, North Sumatra, Indonesia, from May to August 2024.

Data were collected through observation, in-depth interviews, and document review. Data analysis was performed using thematic analysis based on Colaizzi's phenomenological method. The analytical process included transcribing the interview data, identifying significant statements, formulating meanings, organizing codes into categories and themes, developing comprehensive descriptions of the

phenomenon, interpreting the findings, and validating the results through participant verification (member checking).

RESULTS

Table 1. Informant Characteristics

No	Participants	Participant Name	Age	Education	Job	Pregnancy History		
						G	P	A
1	P1	Mrs. DA	33	High School / Equivalent	Housewife	4	3	0
2	P2	Mrs. PN	27	High School / Equivalent	Housewife	2	1	0
3	P3	Mrs. A	23	High School / Equivalent	Housewife	1	0	0
4	P4	Mrs. VR	26	High School / Equivalent	Housewife	2	1	0
5	P5	Mrs. RW	37	High School / Equivalent	Housewife	6	5	0

From the results of the presentation in table 4.1 above, this study involved 5 (five) participants with the symbols "P1 to P5", where the participants consisted of mothers who were pregnant in the third trimester. Participants were aged 20-30. Participants had a high school education level / equivalent, and were housewives. The pregnancy history of participants (P1, P3, P4, P5) was multigravida, while participant (P2) was primigravida.

Theme 1: Mothers' Perceptions on Recognizing Danger Signs in the Third Trimester of Pregnancy

a. Knowledge

This study found that mothers were aware of and had the ability to recognize danger signs in the third trimester of pregnancy. The following is an informant's statement:

"You know, for example, if blood comes out, right?" (P1)

"Yes, dear, it would be dangerous if you suddenly had a severe stomach ache, frequent headaches, high blood pressure" (P3)

"Yes, dear, like high blood pressure, often seeing stars, dizziness, hmm,,, bleeding too" (P4)

In addition, the informant understands the dangers The mother experiences painless bleeding, fresh red blood, one of the danger signs of pregnancy . The following is the participial expression:

"Hmm, it's dangerous, because it's not the right time yet, she's not even 9 months old and she's already bleeding, of course it's dangerous, sis." (P1)

"Yes, if you're bleeding, you're afraid that the baby will be okay." (P2)

"Oh yes, I know, bleeding is dangerous, sis, especially since the bleeding is not yet full term, I'm afraid the child will be born prematurely." (P3)

"Yes, of course, if it's bleeding, that means something's wrong, right?" (P4)

"Yes, it's dangerous if blood suddenly comes out before giving birth." (P5)

The informant also noted that sudden vaginal discharge is a warning sign of pregnancy. The informant stated the following:

"It's dangerous, because usually we give birth after 9 months or more than 9 months, if the water breaks first, how will the baby be able to be born smoothly?" (P1)

"Oh yeah, I know, if suddenly the amniotic fluid comes out before 9 months, I'm afraid there's a problem, right?" (P3)

"Hmm, yes, as far as I know, pregnant women only break their waters when they are 9 months pregnant, so it would be dangerous if their waters suddenly break." (P5)

Based on the interview results above, it can be concluded that mothers already have a perception of the danger signs of pregnancy in the third trimester, which can be seen from mothers who understand the danger if there is sudden bleeding or sudden vaginal discharge before the full gestational age (atrem).

b. Experience

The results of this study revealed that mothers will also have a perception of recognizing danger signs in the third trimester of pregnancy based on their own pregnancy experiences or the experiences of those around them. This can be seen in the results of interviews with participants who stated that mothers were aware of danger signs in the third trimester.

"Yes, dear... When I was pregnant with my first child, my water broke when I was 8 months pregnant, and I had some bleeding yesterday... I immediately went to Mera's midwife clinic here, it's nearby... Mrs. Mera said it was okay, she told me to just get plenty of rest " (P4).

Apart from that, there are also mothers who know that if a pregnant woman's blood pressure reaches 140/90 mmHg, this is one of the danger signs of pregnancy.

"It's dangerous, sis... yesterday there was also a pregnant woman near here, but she had given birth almost a month ago... so her hands and feet were swollen." (P3)

"Yes, it's dangerous, sis... yesterday, the mother was pregnant with her 3rd and 4th child and her blood pressure was high" (P5)

Theme 2: Mothers' Perceptions on How to Deal with Danger Signs in the Third Trimester of Pregnancy

a. Health Facilities

From the interview results, the mother experienced one of the danger signs of pregnancy in the third trimester, the mother chose to immediately go to a health facility. This can be seen when the mother experienced one of the dangers of pregnancy in the third trimester, such as headaches, impaired vision/blurred vision, the mother chose to go directly to a health facility. The following is a participant's statement:

"Hmm, I'll take a look first, sis. If the headache doesn't go away and you're sick all day, I'll go straight to the clinic." (P1)

"Hmmm, I'll go straight to the clinic." (P2)

Another example of a danger sign is when the mother suddenly experiences bleeding,

"Go straight to the midwife, sis. You don't know yet and you're scared too, right?" (P3)

"Hmm,, go straight to the clinic, because it's dangerous if you suddenly bleed, right?" (P4)

The results of the research above can be concluded that the majority of participants have the perception that they will go directly to a clinic or other health facility if they experience one of the danger signs in the third trimester of pregnancy.

b. Alternative Medicine

Interview results revealed that several women had tried alternative treatments before going to a health facility. The following are the informants' statements:

"Yes, sis, usually when my blood pressure is high I immediately drink cucumber juice." (P1)

Additionally, when mothers experience headaches, visual disturbances, or blurred vision, some mothers first apply eucalyptus oil; if the symptoms persist, they will then seek medical attention. Here's what an informant said:

"Hmm, usually when it's like that, I first give him eucalyptus oil, but if it doesn't work, then I go to the midwife." (P3)

Theme 3: Mothers' Perceptions in Obtaining Information about Danger Signs of Pregnancy in the Third Trimester

a. Health workers

Healthcare workers play a crucial role in improving mothers' knowledge. This aims to develop mothers' perceptions, making them more selective and evaluative. Interviews revealed that mothers gained knowledge from midwives. Here are some of the participants' comments:

"Yes, for example, yesterday I experienced cramps, like when my water broke, the midwife said it was normal, the baby was finding its way." (P1)

"Yes, I have... during a pregnancy check" (P3)

"Yes, during the pregnancy check, right?" (P4)

b. Technology or Social Media

Research shows that in addition to healthcare professionals, mothers can also identify pregnancy danger signs through technological advances and social media. Here's what participants said:

"I have, yeah, I've tried to find out about bleeding like that" (P2)

"I have, I searched on Google for signs of dangerous pregnancy, right? If I wasn't satisfied, I'd ask the midwife too." (P3)

However, some participants did not utilize social media to increase their knowledge. Here are some mothers' statements:

"Never, because God willing, during my pregnancy everything was always safe." (P1)

"No, dear... I've never looked for information on the internet either... if anything happens, just take me to the midwife, right? Midwife Mera is close by." (P4)

"No, sis, I never found out on the internet." (P5)

c. Family and Society

Interview results revealed that family and community also play a supporting role in meeting mothers' perceptions of pregnancy danger signs. This is evident from the mothers' having received information from their families about third-trimester danger signs. The following is an informant's statement:

"Yes, of course, my parents always teach me, especially when I'm heavily pregnant," (P1)

"Yes, I have, my mother often reminds me that if I'm heavily pregnant I have to be more careful." (P2)

"Yes, the family always remembers me, because I'm the first grandchild too, right?" (P3)

Apart from that, the mother also received information from the community about the danger signs of pregnancy in the third trimester.

"Yes, as usual, if anything happens I often say don't get tired because you're pregnant" (P1)

"Yes sir, we usually get together in the afternoon, sometimes we discuss pregnancy like that, sir" (P4)

DISCUSSION

The findings revealed that pregnant women's perceptions of danger signs during the third trimester were influenced by several factors, including knowledge, personal experience, access to information, and social support. Women with adequate knowledge and prior experience, supported by healthcare providers, technology, family members, and the community, demonstrated a greater ability to recognize and appropriately respond to pregnancy danger signs. This capability is essential for preventing complications and improving maternal and fetal health outcomes.

Theme 1: Mothers' Perceptions of Recognizing Danger Signs During the Third Trimester of Pregnancy

a. Knowledge

Most participants (80%) demonstrated adequate knowledge regarding danger signs during pregnancy. They were able to identify serious conditions such as vaginal bleeding, severe abdominal pain, hypertension, and symptoms of preeclampsia, and understood that these conditions could endanger both maternal and fetal health. Adequate knowledge is essential because, although most pregnancies progress normally, approximately 10–12% may develop complications and become high-risk pregnancies. Early recognition of danger signs through increased awareness and understanding is considered one of the most effective strategies for preventing severe maternal and fetal complications (Viera Valencia & Garcia Giraldo, 2019).

b. Experience

Approximately 60% of participants reported acquiring knowledge about pregnancy danger signs through personal experiences, such as premature rupture of membranes or a history of gestational hypertension. Both personal experiences and the experiences of others contributed to participants' understanding of abnormal pregnancy conditions. Women with a history of pregnancy-related

complications tended to have a greater awareness of potential risks and were more prepared to respond appropriately to danger signs. Previous studies have similarly reported that maternal experience plays an important role in shaping perceptions of pregnancy risks and promoting preparedness for potential complications (Alemu et al., 2022).

Theme 2: Mothers' Perceptions of Managing Danger Signs During the Third Trimester of Pregnancy

a. Utilization of Health Facilities

All participants (100%) perceived healthcare facilities as the appropriate source of assistance when experiencing pregnancy danger signs. Participants understood the importance of seeking immediate medical attention to prevent complications and ensure timely management. Education regarding early identification and management of pregnancy complications, including fetal movement monitoring, routine antenatal care attendance, and recognition of preeclampsia symptoms, contributed to participants' readiness to respond to pregnancy-related risks (Ellina, 2022).

b. Use of Alternative Remedies

Approximately 40% of participants reported using alternative remedies, such as cucumber juice or eucalyptus oil, to alleviate initial symptoms including elevated blood pressure and headaches before seeking professional healthcare services. This finding is consistent with previous studies indicating that pregnant women often attempt self-care or traditional remedies when symptoms are perceived as mild (Darmina et al., 2018). The use of alternative treatments is frequently influenced by cultural beliefs, family traditions, and perceptions that traditional remedies are more accessible or affordable than formal healthcare services (Riyanti, 2024).

Theme 3: Mothers' Perceptions of Sources of Information on Danger Signs During the Third Trimester of Pregnancy

a. Healthcare Providers

Most participants (80%) reported receiving information regarding pregnancy danger signs from healthcare providers during antenatal care visits and counseling sessions. Healthcare professionals play a crucial role in reducing delays in recognizing complications, seeking medical care, and receiving appropriate treatment. Health education and counseling provided by midwives and other healthcare professionals have been shown to significantly improve maternal knowledge and awareness of pregnancy danger signs (Hotman et al., 2022).

b. Technology and Social Media

Although some participants (60%) reported limited use of social media as a source of pregnancy-related information, often due to confidence in healthcare professionals or the absence of pregnancy-related concerns, digital technology remains an important source of health information. Through online articles, educational videos, mobile health applications, and pregnancy-related forums, pregnant women can access timely and relevant information regarding pregnancy health and danger signs (Haslin & Purba, 2022). Digital media may therefore contribute to increased awareness and encourage timely healthcare-seeking behavior when danger signs occur.

c. Family and Community Support

All participants reported obtaining information and support from family members, while some also received information from the surrounding community. Family support was perceived as an important factor influencing maternal knowledge, attitudes, and health-related decision-making during pregnancy (Ariska et al., 2021). Community members also contributed to the dissemination of information through shared experiences and social interactions, thereby strengthening women's

understanding of pregnancy danger signs and encouraging regular antenatal care attendance (Nuraida, 2022).

CONCLUSION

The findings indicate that most third-trimester pregnant women demonstrated a good understanding of pregnancy danger signs. This understanding was developed through health-related information, personal experiences, and the experiences of individuals within their social environment. All participants exhibited appropriate health-seeking behavior by reporting that they would seek immediate assistance from healthcare facilities when experiencing danger signs during pregnancy. However, some participants also reported the use of alternative remedies to manage mild symptoms before seeking professional medical care.

Mothers' perceptions of pregnancy danger signs were influenced by multiple sources of information, including healthcare providers, family members, technology, and the community. Among these factors, support from family and healthcare professionals emerged as the most influential in shaping mothers' perceptions and enhancing their awareness of danger signs during the third trimester of pregnancy.

ACKNOWLEDGMENTS

Briefly acknowledge to research participants in this section.

CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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