

PREGNANT WOMEN'S PERCEPTIONS OF PREECLAMPSIA: QUALITATIVE RESEARCH

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ABSTRACT

Preeclampsia is still the number one cause of maternal death in Indonesia. Improper treatment of preeclampsia leads to increased preeclampsia status to preeclampsia with ballast symptoms even eclampsia. Pregnant women's perception of preeclampsia is decisive in getting proper preeclampsia care. This study aims to explore the experience of preeclampsia pregnant women in carrying out preeclampsia pregnancy care. Qualitative research with phenomenological design. Eleven postpartum pregnant women with preeclampsia were used as informants and participated in the study. In-depth interviews are used to collect data. The data were analyzed using an interpretive phenomenological analysis approach. Preeclampsia treatment measures are explored and interpreted. The five themes raised are definition, causes, signs and symptoms, handling and dangers of preeclampsia. Result: informants describe preeclampsia as chronic hypertension caused by the wrong lifestyle. Blood pressure is controlled by regulating a low-salt diet and increasing vegetable and fruit consumption. The appearance of edema indicates that labor is imminent. The findings of this study imply that creating awareness about preeclampsia and its treatment should be emphasized. The provision of care in health facilities should increase education about preeclampsia in pregnant women during ante-natal care.

Keywords: eclampsia; perception; preeclampsia

INTRODUCTION.

Maternal mortality is still a major health problem worldwide. According to *the World Health Organization* (WHO) in 2019, globally growing accounts for about 94% of maternal deaths. MMR in Indonesia reached 305/100,000 live births (LB) in 2015 (Central Bureau of Statistics, 2016). In the *Association of Southeast Asian Nations* (ASEAN) countries, MMR in Indonesia ranks second after Laos (WHO, 2019). This figure is still far from the 2024 national target of 183/100,000 LB (Indonesian Ministry of Health,

2020), especially the *Sustainable Development Goal* (SDGs) target in 2030, which is to reduce MMR to less than 70/100,000 LB (WHO, 2021)

The maternal mortality rate due to preeclampsia in Indonesia reached 33.07% (Ministry of Health, 2019) and the infant mortality rate about 50% (Iswanti, 2017). The MMR due to preeclampsia in North Sumatra increased from 16.1% in 2018 to 23.7% in 2019. A similar incident also occurred in Deli Serdang Regency. Death cases due to preeclampsia in Deli Serdang Regency increased from 18.7% in 2018 to 28.5% in 2019 (Department of health North Sumatra, 2020).

The incidence of preeclampsia in different countries varies in number. Rana et al. (2019) states that preeclampsia cases range from 5-7% of pregnancies. Data on preeclampsia cases in Indonesia ranges from 10-15% (Wibowo, 2020). Basic Health Research data in 2018 showed preeclampsia cases of 3.3% and eclampsia 2.7%, while cases of preeclampsia in North Sumatra Province were 2.7% and eclampsia were 3.2% (Ministry of Health of the Republic of Indonesia, 2019 ; Ministry of Health of the Republic of Indonesia, 2018).

The magnitude of the preeclampsia problem not only leads to an increase in maternal and infant morbidity and mortality, but also has a long-term impact on other maternal and infant health problems such as low weight, psychological disorders, reproductive system disorders, hypertension, *acute myocardial infarction* and *thromboembolism*(Mayrink, Costa & Cecatti 2018).

Efforts to reduce MMR, including due to preeclampsia and eclampsia are still leading programs in the world, including in Indonesia. Various efforts have been made but MMR due to preeclampsia has not shown a decrease. The treatment of preeclampsia is still clinically focused, not much touch on pregnant women's perspectives on preeclampsia that have a direct or indirect impact on preventive measures, health-seeking behaviors, and management outcomes in women with preeclampsia have not been well explored. Perception of preeclampsia will differently affect the time and place of health seeking.(Mekie et al., 2021).

Positive perceptions of preeclampsia are central to predictions in improving maternal and fetal outcomes. Conversely, pregnant women who have a negative perception of preeclampsia can experience serious complications due to delays in seeking treatment(Mekie et al., 2021). Delays in seeking care and lack of knowledge about the

severity of symptoms contribute to more than half of all cases of hypertension-related maternal deaths (Lagrew & Arnold, 2022).

A preliminary study conducted in Deli Serdang Regency on the perception of preeclampsia showed that almost 80% of informants stated that preeclampsia was related to the consumption of foods containing high sodium. Perceptions of preeclampsia, perceived causes and treatment search have never been carried out in Deli Serdang Regency. In this study, we aimed to explore perceptions of preeclampsia in pregnant women in Deli Serdang Regency.

METHOD

A qualitative phenomenology research design (Smith et al., 2009) was used to explore preeclampsia woman' experiences. These experiences were obtained through indept interviews.

Study Setting and Population. This study was conducted in the working area of Deli Serdang District Health Office. This region is the locus of maternal mortality. Informants were purposively selected based on the patient's medical records from the hospital, with the criteria that the patient was in the postpartum period in the last 6 months at the time of the study and diagnosed with preeclampsia in pregnancy. Patients were contacted by the hospital by telephone. All interviews were conducted by the first author. Data redundancy was obtained after interviews with 11 participants. The researcher identified participants' willingness to participate and were communicative and co-operative. Informants described their experiences in caring pregnancy with preeclampsia. The study was conducted by two researchers who are experienced in qualitative research.

Informants were informed of the purpose of the study and recruited after written and verbal consent was obtained from participants and from the local referral hospital. Interviews were conducted according to agreed and scheduled times. Data were collected through in-depth interviews lasting 30 to 60 minutes, using a semi-structured interview guide developed based on theories of preeclampsia and validated by experts judgment.

During the interview session, informants were free to express themselves without interruption. The interview started with questions about their feelings towards pregnancy with preeclampsia. Participants were encouraged to provide information, free to ask questions or leave the rest of the interview at any time. We wrote field notes after each interview. The interviews were digitally recorded in Indonesian and transcribed verbatim by

the researcher. Audio files and transcripts were stored in a secure digital storage system. Participants' names were coded. Data were collected in June to July of 2022. Ethical clearance was obtained from the Ethics Committee of the University of Sumatera Utara. Informants were assured of the confidentiality of their responses.

Data analysis. The data analysis technique used in this research is interpretative phenomenology analysis (Smith et al., 2009). Transcripts were read and re-read several times by the author to familiarize herself with the data and understand the caring in woman preeclampsia experiences. During code revision, an iterative process was conducted through data appraisal to generate appropriate themes. During data analysis sessions, any discrepancies regarding themes were resolved through discussion. Finally, for data presentation, sentence quotations from participants were selected and presented as their responses.

RESULTS AND DISCUSSION

Informant characteristic

The majority of preeclampsia woman were ranged from 19-41 years old with the majority of woman education in high school, have had previous history of preeclampsia, and have a family history of preeclampsia. The characteristics preeclampsia woman is summarized in the table below.

Table 1. Characteristics of preeclampsia woman in the study (N = 11)

ID	Age	Parity	Previous history of preeclampsia	Family history of preeclampsia	Education	Occupation
1	22	1	Yes	Yes	Senior High School	Housewife
2	27	3	No	Yes	Senior High School	Housewife
3	32	3	Yes	Yes	Junior high School	Housewife
4	21	1	No	No	Junior high School	Housewife
5	19	1	No	No	Senior High School	Housewife
6	27	2	Yes	No	Senior High School	Housewife
7	41	2	No	No	Elementary School	Housewife
8	23	1	No	No	Senior High School	Housewife
9	25	2	Yes	Yes	Senior High School	Housewife
10	26	2	Yes	Yes	Senior High School	Housewife
11	28	2	No	No	Junior High School	Housewife

Theme

Three main themes pregnancy woman perception of preeclampsia data analysis: definition, etiology, sign and symphom, danger and handling of preeclampsia. Each of these themes had subthemes, as presented in Table 2.

Table 2. Themes of pregnancy woman perception about preeclampsia

Main-ordinate Theme	Super-ordinate Theme
Definition	Hipertensi
Cause	Pregnancy poisoning
	Excessive salt consumption
	Eating less fruits and vegetables
Signs and symptoms	High fat consumption
	Feet, swollen hands
	Swollen body
Danger	Headache
	Seizure
	Death
Handling /management	Reduce/not consume salt
	Increase fruit and vegetable consumption
	Reduce animal protein consumption

Definition of preeclampsia. The results of this study showed that informants had never heard of the term preeclampsia. They know the condition of preeclampsia experienced by pregnant woman as chronic hypertension which is generally common in the community in their environment.

"Ever heard of Mom, if you have high blood pressure. If he said the word shared on Google, the reason for the act of giving birth is a bit heavy because the problem of blood pressure is too high" (I₉).

"Hypertension " (I₆).

"It is said that the tension is rising" (I₁₁).

Causes of preeclampsia. The majority of informants said that the cause of preeclampsia was caused by excessive consumption of natrium, foods high in fat and protein.

"That's the high tension because most eat salty" (I₄).

"Eating too much fatty" (I₁₀).

"He said it was stress, or the wrong diet" (I₈).

"If you don't get angry, the tension rises" (I₇).

"The tension is said by the midwife, the midwife said 150. D he was often dizzy, he said. I said maybe you didn't sleep enough, because the weather was hot he often slept in cement" (I₁).

Signs and symptoms of preeclampsia. The most common signs and symptoms realized by informants were edema and headache.

"She was seven months pregnant yesterday, she was mom. His body has begun to swell. Before, it was swollen too, but only in the legs. The flip flops she used to use didn't fit anymore. He also said that his head was dizzy. Then I queued to check with the Midwife. Dsaid that the midwife was the one who increased the tension, because the early days were still good tension. Here and there with dizziness, headaches, then later the nape of the neck hurts he said" (I₃).

"The symptoms are dizziness, weakness, helplessness, and vomiting that cannot be resisted. If we want to vomit it can be restrained" (I₂).

The danger of preeclampsia. The majority of informants were aware that the disease could cause seizures and even death. But there are still those who consider this disease normal in pregnancy.

"If his mother had a seizure, the possibility of living was minimal, right. Disturbed is also the same as the fetus, right. It can be two choices of children or mothers, or two of them" (I₈).

Treatment of preeclampsia. People assume that meat contains a lot of fat so that it will increase cholesterol which triggers hypertension. Like the following narrative:

"...Reduce salty consumption, drink lots of water, consume lots of bu fruit and better pears, melons, also eat lots of vegetables" (I₂).

The findings of this study show that pregnant women's perceptions of preeclampsia and eclampsia in Deli Serdang Regency differ significantly from a biomedical perspective (Akeju et al., 2016). There is no specific term for preeclampsia in Deli Serdang Regency. Informants usually refer to preeclampsia with the terms increased tension, high tension, hypertension or pregnancy poisoning.

The above term has been approved by midwives, with the intention to facilitate the understanding of pregnant women about preeclampsia. Midwives state the term preeclampsia with hypertension or pregnancy poisoning. An informant's assumption about the causes of preeclampsia is closely related to perceptions about the definition of preeclampsia which considers it as hypertension that is common in society, where an unhealthy lifestyle is the main factor that causes preeclampsia. It is also seen that the myth of floor sleeping is the cause of preeclampsia, according to informants sleeping on the

floor is a prohibited part for pregnant women because cold semen conditions can trigger headaches and swelling so that pregnant women are easily exposed to high blood pressure. Placental and fetal growth are believed to be the sole cause of preeclampsia (Gathiram & Moodley, 2016). The same study in Ethiopia where preeclampsia mothers believed preeclampsia to be a pregnancy-specific hypertensive disease and was mainly associated with overweight and overnutrition problems (Mekie et al., 2021).

Preeclampsia has two very important symptoms namely hypertension and proteinuria that pregnant women are usually not aware of. Elevated blood pressure is an important early sign of elevation in preeclampsia. Sudden weight gain precedes an attack of preeclampsia, even excessive weight gain is the first sign of preeclampsia in pregnant women. The subjective pain felt in preeclampsia is dizziness and headaches of the frontal and occipital regions that are not cured by regular analgesics (Gathiram & Moodley, 2016).

Wibowo et al (2016) Edema is no longer used as a diagnostic criterion because it is very common in women with normal pregnancies, but in this study the discovery of edema and dizziness became important signs and symptoms known by preeclampsia pregnancy woman. Both of these things cause pregnant women to seek health services.

Hypertension causes disorders of the digestive system which manifest into nausea and vomiting. Nausea and vomiting are a common complaint in other conditions so pregnant women assume it is not a danger sign of preeclampsia. Incorrect perceptions of the signs and symptoms of preeclampsia can lead to an understanding of the dangers of preeclampsia as well as inappropriate treatment-seeking efforts. Delays in recognizing the red signs of preeclampsia result in delays in seeking health care and lead to high maternal and perinatal morbidity and mortality (Olusegun dkk., 2012).

Treatment of preeclampsia by informants is a response to symptoms that appear and diagnoses that are established. The term hypertension as a diagnosis of preeclampsia leads to the treatment of preeclampsia as well as the treatment of chronic hypertension. Each informant has a unique way of dealing with preeclampsia, but the majority of informants handle these cases by arranging diet. The different perspectives of pregnant women reported in this study have led to treatment that is in line with traditional norms and values on controlling blood pressure drops in people with chronic hypertension.

The most well-known treatment of preeclampsia among informants is reducing salt consumption, not consuming meat, eggs and limiting fish only once a week and sufferers only eat boiled vegetables. They believe increasing the intake of vegetable and fruit

consumption can treat hypertension suffered. Treatment of preeclampsia is done in addition to regulating diet, also by giving plenty of time to rest and reduce stress.

All informants knew that mothers with hypertension had the potential to cause seizures, bleeding that threatened the safety of the mother and her fetus. Preeclampsia is known to informants to be a major threat to mothers if appropriate action is not taken immediately. Termination of pregnancy is a preventive measure against the occurrence of multi-organ failure. However, it was found that preeclampsia is normal in pregnancy as a sign that labor is imminent. The perception of preeclampsia not as an emergency case was found in a study in Pematang, where (28.8%) preeclampsia pregnant women expressed disapproval if preeclampsia causes seizures and death in pregnant women (Mariyana, Jati & Purnamih., 2017). (Mariyana et al., 2017) The underlying factor of perception is education. The results obtained in this study, the last education completed by informants was the majority of junior high school. Education is very important to develop yourself, including gaining knowledge about the dangers of preeclampsia.

This study reports that public perception of preeclampsia is inadequate. This inadequate perception is illustrated by informants' assumptions about preeclampsia as chronic hypertension caused by high consumption of sodium and fat which continues with the treatment of preeclampsia with a low-salt diet, reducing fat and increasing vegetable and fruit consumption, exercise, and drinking herbs. The above findings illustrate the wrong perception of preeclampsia in Deli Serdang Regency which has an impact on the way of handling and the inability of preeclampsia pregnancy woman to consider the early signs and symptoms of preeclampsia and eclampsia (Olusegun, Thomas & Micheal, 2012).

Some similar studies that report on pregnant women's wrong perceptions of preeclampsia include: in Ethiopia found preeclampsia as a nutrition-related hypertensive disease (Mekie et al., 2021); in Uganda preeclampsia is associated with less blood, witchcraft, ghost attacks and stress from strained relationships including marital tension (Nabulo et al., 2021); Findings in Nigeria revealed that preeclampsia is considered a condition caused by stress, whereas eclampsia is considered a product of prolonged exposure to cold (Akeju et al., 2016).

The findings from this study provide additional information about local perceptions and practices that have consequences for early treatment of preeclampsia and eclampsia in

Deli Serdang. This study shows that there is a large gap between people's perceptions of preeclampsia and eclampsia and clinical perspectives.

CONCLUSIONS

This study illustrates that there is a gap in understanding of preeclampsia with clinical ones. This highlights the need for a review of maternal health policies in Serdang deli with special attention to the role of pregnant women and the need for health care providers to Provision of care in health facilities should improve education about preeclampsia in pregnant women at the time of ANC.

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