Pregnant Women's Perception of Preeclampsia Treatment in Indonesia: A Qualitative Study

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Abstract. Background: Preeclampsia is a pregnancy disorder characterised by hypertension and proteinuria, affecting 1-10% of pregnant women in the world and the main cause of maternal and perinatal death. Pregnant women's perception of preeclampsia greatly influences their behaviour in its prevention. Negative perceptions of preeclampsia can lead to delays in early detection and appropriate treatment. It is important to explore the perception of pregnant women to design an effective educational approach.
Objective: This study aims to explore pregnant women's perceptions of the handling of preeclampsia in Indonesia based on emotional and religious perspectives, support of health workers and the community including media and health information.
Methodology: This study uses a qualitative method with a case study approach. The research was conducted in Boyolali Regency, Indonesia, from January to May 2024. Informants were selected by purposive sampling, obtained 28 informants consisting of 11 pregnant women as the main informants, 12 health workers and 5 policy makers as supporting informants. Data was collected through in-depth interviews using structured interview guidelines. Data analysis was carried out using thematic analysis techniques. Triangulation of sources is used by the author to obtain the validity of the information obtained.
Results: The results of the study show that pregnant women's perception of preeclampsia, seen from an emotional and religious perspective, support from health workers and the community as well as media and health information is good. However, the behaviour of pregnant women in preventing and handling preeclampsia is still lacking.
Conclusion: Emotional and religious responses, support from health workers and the community, and the role of media and health information are the main factors influencing pregnant women's perceptions in handling preeclampsia. The dissemination of correct information related to the prevention and handling of preeclampsia by the authorities is needed intensively for pregnant women.

Keywords: Perception, pregnant women, treatment, preeclampsia, qualitative studies

1 Introduction

Preeclampsia is one of the complications of pregnancy that is still the main cause of maternal and fetal morbidity and mortality around the world. This condition is characterised by hypertension and proteinuria, estimated to affect around 1-10% of pregnant women globally. Although the exact cause of preeclampsia is not yet fully known, various studies suggest that the disease is multifactorial [1]. Although early detection and medical treatment efforts have been improved through more comprehensive antenatal services, their effectiveness is still greatly influenced by pregnant women's perceptions of the condition. Factors such as emotional, religious, social, and access to health information also play an important role in the success of the prevention and treatment of preeclampsia.

Studies have shown that pregnant women's perceptions of preeclampsia are often shaped not only by medical information but also by personal experiences, religious values, and support from family and society. Pregnant women with preeclampsia who received emotional support from their families showed lower levels of anxiety and had better coping skills than those who did not receive similar support [2]. This is reinforced by research that found that family involvement, including practical assistance and attendance at pregnancy screenings, was significantly associated with preeclampsia early detection behaviour ($p < 0.001$) [3].

In addition to family support, the role of health workers is also key in shaping pregnant women's perceptions and responses to the risk of preeclampsia. A study showed that effective communication from midwives and doctors in providing education related to preeclampsia improves maternal understanding and strengthens the willingness to have regular checkups. However, this educational approach has not fully reached the group of mothers with low health literacy or who live in areas with limited access to health services [4].

Religious factors also play an important role in shaping the attitudes and coping mechanisms of pregnant women. Religiosity is a source of inner peace for pregnant women who experience preeclampsia, and contributes to acceptance of the conditions experienced and calmer and more targeted decision-making [5].

However, until now, there is still limited research that exploratory and comprehensively explores pregnant women's perceptions of the treatment of preeclampsia with a multidimensional approach that includes emotional, religious, and social support, health workers, as well as the influence of media and access to health information. Therefore, this study is important to understand more deeply how pregnant women in Indonesia interpret and respond to the treatment of preeclampsia, as the basis for the development of intervention strategies that are more contextual, culturally sensitive, and holistically oriented to the needs of mothers.

2 Methods

This study uses a qualitative research method with a case study approach. The research informants amounted to 28 subjects, consisting of pregnant women, health workers, and policy makers selected through purposive sampling. The number of main informants is 11 pregnant women who meet the criteria: domiciled in Boyolali Regency, evidenced by an ID card, and have a risk of preeclampsia. Meanwhile, 12 health workers and 5 policy makers acted as supporting informants. Data was collected through in-depth interviews with open-ended questions using structured interview guidelines, and voice recordings were

stored using smartphones. This research was carried out in Boyolali Regency, Central Java, Indonesia, for the period of January-May 2024. This research has been approved by the Research Ethics Committee of the Faculty of Medicine, Sebelas Maret University on September 5, 2023 (registration number: 195/UN27.06.11/KEP/EC/2023).

The collected data was analysed using thematic analysis manually. The analysis process begins with transcribing the interview, then reading and encoding the data to identify key themes. The coding process is carried out by two people, namely a researcher and a trained research assistant. Source triangulation is used for the internal validity of the data obtained. The triangulation process is carried out by collecting information through in-depth interviews with supporting informants, which are then verified through observation using observation sheets by referring to the data recorded in the KIA book or patient control card.

3 Results And Discussion

The results of the study identified four perceptions of pregnant women in the treatment of preeclampsia in Indonesia. The four main themes found in this study are:

3.1 Emotional and religious responses

Research findings show that most pregnant women feel calmer and less worried after getting support from their husbands.

"I first found out that my blood pressure was high, I was worried, ma'am, afraid that something would happen to my pregnancy. But my husband said Don't worry and be afraid, later the tension will continue to be high, the important thing is to regularly check and take the medicine given by the doctor" (Informant 2).

Informant 2 stated that although initially she felt worried and afraid of high blood pressure conditions during pregnancy, her husband provided emotional support by reminding her that worry and fear would only raise blood pressure higher. This shows that social support, especially from partners, has an important role in helping pregnant women cope with preeclampsia. Such support can psychologically increase the mother's feelings of security and confidence.

Informant 11 stated that despite his fear, he chose to surrender to God. This attitude of resignation and surrender is part of a religious approach that many pregnant women apply to deal with anxiety and uncertainty around their health. In a situation full of worries, trust in God provides emotional comfort with hope and prayer for smoothness. This religious attitude shows how pregnant women use spiritual beliefs to reduce anxiety, which can be a source of strength and inner peace.

"For me, it is scary, but we surrender to the Power, ma'am, hopefully it will be given that smoothly. If you're scared, think about it. If you ask me to think about it, I'm scared." (Informant 11).

In this study, a religious approach, such as surrender to God, is one of the important strategies in managing stress due to preeclampsia. Many subjects felt inner peace through prayer, dhikr, and confidence in God's destiny. These findings are reinforced by previous research, which showed that providing spiritual care education can improve the spiritual health of women with preeclampsia who experience postpartum stress disorder. Spirituality assists individuals in finding meaning, increasing hope, and strengthening self-acceptance of the conditions they are facing [6].

The theory of spiritual health put forward by Puchalski et al (2009) emphasises that spirituality is an important dimension in holistic health. Spiritual health includes aspects of

belief, meaning of life, and a relationship with God, which play a role in improving quality of life and mental resilience, especially in the face of severe medical conditions such as preeclampsia.

Thus, the results of this study show that support from partners and spiritual approaches have a significant contribution in increasing the psychological resilience of pregnant women with preeclampsia. The integration of psychosocial and spiritual interventions needs to be part of a comprehensive approach in maternal health services, particularly in the management of high-risk pregnancies.

3.2 Positive support from health workers

The findings of the study show that most pregnant women receive support from health workers in the form of oral education, direct counselling related to preeclampsia and motivation from health workers.

"Verbally, ma'am, delivered directly." (Informant 9).

"Yes, ma'am, usually once a month, counselling is given, ma'am, yesterday about preeclampsia, preparation for childbirth, gymnastics for pregnant women..." (informant 3).

Pregnant women received oral education about their health conditions, as revealed by informant 9 and informant 3, who received direct counselling related to preeclampsia, childbirth preparation, and gymnastics for pregnant women. This shows that health workers play an important role in providing information to pregnant women to increase knowledge about the dangers of preeclampsia and ways to prevent it. This direct education and counselling is important to ensure that pregnant women get accurate and relevant information about their condition.

The method of direct information delivery is considered effective because it allows two-way communication, clarification of information that has not been understood, and provides opportunities for pregnant women to ask questions and discuss. These findings emphasise the importance of the active role of health workers, especially midwives and doctors, in providing education about the risks, symptoms, and preventive measures of preeclampsia systematically and sustainably [8].

However, some pregnant women state that they do not receive adequate education, especially in the early stages of pregnancy. This shows that there is still an inequality in the distribution of information, both in terms of quantity (frequency and scope of education) and quality (content of material and delivery methods used). Lack of information early in pregnancy has the potential to cause delays in early symptom recognition and preventive measures, which can worsen the condition of pregnant women.

These findings are in line with previous research, which explored the experiences of pregnant women diagnosed with preeclampsia and eclampsia. The study revealed that many mothers experience confusion between the symptoms of preeclampsia and other conditions, such as epilepsy, due to a lack of understanding and lack of education from health workers in the early stages of pregnancy. The lack of effective socialisation also affects the interpretation of symptoms and the level of maternal preparedness in dealing with pregnancy complications. This shows that there are gaps in the education process that need to be addressed immediately so as not to lead to delays in diagnosis and clinical treatment [9].

Based on the theory of innovation diffusion, it is explained that the adoption of health information by the public is greatly influenced by the effectiveness of communication channels, time, and the characteristics of the information recipients. If education is only

provided in a limited way or is not delivered in a way that is in accordance with the level of health literacy of pregnant women, then the dissemination of information will not be optimal. This can lead to a knowledge gap among pregnant women, especially those living in areas with limited access to health services [10].

Thus, the results of this study recommend the need to improve the quality and expand the reach of education on preeclampsia, which does not only rely on an oral approach, but also integrates visual, digital, and community-based media (such as pregnant women's classes). Comprehensive and inclusive educational interventions are expected to reduce information inequality and improve the overall health literacy of pregnant women.

3.3 Positive support from the community

The findings of this study show that most pregnant women get moral and physical support from their husbands and families, such as help with household chores or emotional attention.

"Support from husbands, children, families... motivate them not to think too much, the name is fortune, yes it must be accepted, escort pregnancy checks, and sometimes remind them to take medicine." (Informant 6).

Informant 6 stated that her husband and family motivated her to keep a positive mind and reminded them to take medication. The husband also drove her to the checkpoint, which showed support in terms of transportation and a reminder to follow the routine checkup schedule. This is important because a healthy pregnancy is greatly influenced by the mother's adherence to regular checkups and maintaining her emotional balance.

These findings are in line with previous research, which stated that the presence of husbands in accompanying their wives during pregnancy examinations is a form of practical support that has significant implications for pregnant women's compliance in undergoing regular antenatal examinations. This support is not just the physical act of escorting the wife to a health facility, but also reflects the emotional involvement and shared responsibility in maintaining the health of the mother and fetus. Husband's involvement has been shown to increase maternal motivation to be more consistent in attending check-up schedules, while reinforcing positive perceptions of the importance of regular pregnancy monitoring [11].

Informant 5 revealed that his parents helped him with homework, prepared meals, and suggested eating vegetables and going for walks every morning. Family support in this case is very valuable, as it can ease the burden on pregnant women and provide space to focus more on self-care and health during pregnancy.

“… if parents help with homework, prepare meals, clean the house, advise them to eat vegetables and walk every morning (Informant 5).

The findings are in line with previous research that stated that practical help from family members, such as helping pregnant women carry out daily household tasks, has been shown to have a significant impact on lowering stress levels during pregnancy. Pregnancy, especially in the second and third trimesters, can lead to increased physical and emotional burdens that are often exacerbated by domestic demands, especially for mothers who do not have an adequate support system. In this situation, the involvement of family members in helping with tasks such as cooking, cleaning the house, taking care of other children, or simply providing enough rest time for the mother becomes a real form of support that can reduce mental stress and physical fatigue [12].

3.4 Health media and information

The findings of this study show that most pregnant women stated that they received education related to pregnancy and preeclampsia through oral methods from health workers, as well as visual media such as drawing boards. This education is generally provided during antenatal care (ANC) visits.

"Orally, when you first check to find out pregnancy". (Informant 10).
"Don't wear anything, ma'am, it was delivered directly..." (Informant 4).

Subject 10 revealed that when they first checked for pregnancy, information was given orally. Similarly, subject 4 mentions that information is conveyed directly without the use of visual media or other technology. This describes the oral education method that is still very dominant in providing information to pregnant women, either by midwives or other health workers. This method, while effective in some contexts, may not cover the entire information needs of pregnant women, especially related to more complex topics.

Subject 9 mentioned that in the class of pregnant women, there is a drawing board that is used as an educational medium. This drawing board serves to provide visual information about things related to pregnancy, such as the correct diet, pregnancy exercises, or pregnancy danger signs. The use of visual media, such as drawing boards, helps pregnant women to more easily understand the information conveyed, especially in terms of procedures or physical activities that need to be done during pregnancy. Although drawing boards are available in the classroom for pregnant women, there is an admission from subject 9 that there is no drawing board in the Puskesmas. This shows an imbalance in access to educational media in different health facilities. The absence of visual education media in health centres can limit the effectiveness of counselling, especially for pregnant women who need a more practical and visual way to understand information about pregnancy and preeclampsia.

"There is a drawing board, ma'am... if in the class of pregnant women, there is usually the media, but in the Puskesmas, there is none... In the pregnant women's class, the correct diet, pregnancy exercises, sometimes some doctors provide counselling about pregnancy, such as pregnancy danger signs, childbirth preparation, nutrition for pregnant women." (Informant 9).

However, pregnant women face barriers in accessing health information, mainly due to limited time to attend pregnant women's classes that are usually scheduled during working hours. Subject 2 states that pregnant women have not been able to attend classes due to work reasons that prevent the subject from obtaining permission from the workplace. This shows that there are participation constraints that can reduce the opportunity for pregnant women to get more complete and structured educational information. Pregnant women's classes are often an effective means of providing comprehensive education about pregnancy, childbirth, and postpartum care, but access to these classes is still limited by practical factors such as time and leave from work.

"I have never participated in pregnant women's classes, because when the schedule of pregnant women's classes was announced, I went to work and did not get permission from the factory. "Of course, I would like to know if you have any advice on how to use the Sword and Sword, but I can't help it." (Informant 2).

These findings are in line with previous research that examined the challenges of accessing health information during pregnancy in Iran. The study revealed that one of the main obstacles for pregnant women in obtaining health information is time constraints, especially for women who work or have high domestic responsibilities. In addition, one-way and less flexible methods of information delivery also reduce the effectiveness of education [13].

4 Conclusion

This study reveals four main themes in pregnant women's perception of the handling of preeclampsia in Indonesia, namely: emotional and religious responses, support from health workers, community support, and health media and information.

Emotional support from husbands and spiritual approaches have been shown to help reduce pregnant women's anxiety, increase psychological resilience, and strengthen self-acceptance. Health workers play an important role in education, but inequalities are still found in access and quality of information. Family support, especially from husbands and parents, has a positive impact on the mother's compliance with undergoing examinations and maintaining health. Meanwhile, educational methods are still limited to oral delivery and simple media, and have not fully reached pregnant women who work.

Managing preeclampsia requires a holistic and collaborative approach, integrating psychosocial, spiritual, continuing education, and family and community empowerment to improve maternal and fetal safety.

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