Pregnancy and Postpartum Experiences of Women Diagnosed with Preeclampsia: A Qualitative Study

Preeklampsi Tanısı Alan Kadınların Gebelik ve Doğum Sonrası Deneyimleri: Nitel Bir Çalışma

Araştırma Research

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Abstract

Objective: The aim of this study is to determine the pregnancy and postpartum experiences of women diagnosed with preeclampsia.

Methods: The study was conducted with a qualitative design. Data were collected through face-to-face or online interviews using a semi-structured form with 18 women who gave birth with a diagnosis of preeclampsia in the first six months following delivery at a university hospital in Istanbul. The findings were analyzed using content analysis.

Results: The mean age of the participants was 30.1±4.1 years. 61.1% of the participants had preterm delivery, 88.8% stayed in the hospital for 2-6 days, and the mean duration after delivery was 90.3±44.6 days. Participants were diagnosed with preeclampsia at an average of 28.5±3.8 weeks. Five themes were identified as a result of qualitative interviews: "reaction to the diagnosis of pre-eclampsia", 'postpartum effects of pre-eclampsia', 'information gathering', 'social support' and 'lifestyle changes and pregnancy intention'.

Conclusion: The diagnosis of PE affects women's experiences during pregnancy and the postpartum period. The results indicate that women needed professional assistance with a multidisciplinary approach during this period.

Keywords: preeclampsia; postpartum period; experience; nowledge

Özet

Amaç: Bu çalışmanın amacı preeklampsi tanısı alan kadınların gebelik ve doğum sonrası deneyimlerini belirlemektir.

Yöntem: Araştırma nitel tasarımla yürütülmüştür. Veriler İstanbul'da bir üniversite hastanesinde, doğumu takip eden ilk altı ayda preeklampsi tanısıyla doğum yapan 18 kadınla yarı yapılandırılmış form kullanılarak yüz yüze veya çevrimiçi görüşme yoluyla toplandı. Bulgular içerik analizi kullanılarak analiz edilmiştir.

Bulgular: Katılımcıların yaş ortalaması 30,1±4,1 bulundu. Katılımcıların %61,1'i preterm doğum yapmış, %88,8'i hastanede 2-6 gün kalmıştı. Doğumdan sonra geçen süre ortalama 90,3±44,6 gün olup; katılımcılar preeklampsi tanısını ortalama 28,5±3,8 haftada almıştı. Araştırmada nitel görüşmeler sonucunda eş tema belirlendi: "preeklampsi tanısına tepki", "preeklampsinin doğum sonrası etkileri", "bilgi toplama", "sosyal destek" ve "yaşam tarzı değişiklikleri ve gebelik niyeti".

Sonuç: Preeklampsi tanısı kadınların gebelik ve doğum sonrası dönemdeki deneyimlerini etkilemektedir. Sonuçlar, kadınların bu dönemde multidisipliner yaklaşımla profesyonel yardıma ihtiyaç duyduğunu göstermiştir.

Anahtar Sözcükler: preeklampsi; postpartum dönem; deneyim; bilgi

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Introduction

Preeclampsia (PE) is one of the major causes of maternal and fetal morbidity and mortality. Preeclampsia affects approximately 3-5% of all pregnancies and is estimated to cause at least 42,000 maternal deaths per year (1). It ranks among the top three causes of maternal mortality worldwide (2). In Turkey, it ranks second among the direct causes of maternal mortality (3). PE is a pregnancy-specific disease characterized by new-onset hypertension, proteinuria, and end-organ damage at or after the 20th week of pregnancy (4). The kidneys, liver, central nervous system, hematological system, and placenta are the most often damaged organs (4). PE may manifest itself in a variety of ways. Although pregnant women may apply to a medical facility with seizures, shortness of breath, severe epigastric pain, and massive placental abruption; however, in some cases they are asymptomatic, and hypertension may be found in routine prenatal check-ups (1). The etiology of PE is not known exactly. While only symptomatic interventions are employed to treat it, the sole 'treatment' is either labor induction or caesarean section delivery (5). Autoimmune diseases, diabetes, renal disease, chronic hypertension, a personal or family history of PE, a body mass index of more than 30 kg/m^2, and ethnicity (particularly among African women) are all risk factors for PE (6).

Since low and middle-income countries have limited access to competent obstetric care and family planning services, the burden of care for PE is greater than in high-income countries. Women with PE are generally well managed in high-income countries, with timely, appropriate, and effective interventions, but some women may suffer a life-threatening occurrence, which may lead to psychological distress (7). This has a negative effect on mother-infant attachment, child development, and mothers' overall experiences (6). Women with PE have a greater risk of developing postpartum depression, anxiety, and post-traumatic stress disorder than other women (8). Furthermore, it has been reported that women with PE and their babies are at a high risk of developing long-term hypertension, stroke, and cardiovascular disease (9).

Early diagnosis of PE is critical for treatment and care (1). Nurses and midwives play a key role in the follow-up of pregnant women with pre-eclampsia. Accurate blood pressure measurement is very important in pre-eclampsia. Health professionals should pay attention to this issue, and if the patient is to monitor blood pressure at home, they should make sure that the patient has learnt to measure blood pressure (5). Changes in the body weight of the pregnant woman may indicate fluid imbalance associated with general oedema. Weight gain of more than three to five kilograms in a week, decreased urine output or the presence of oedema, including pulmonary oedema, suggest fluid imbalance due to pre-eclampsia, especially in the second half of pregnancy. However, blood and urine tests can provide an objective diagnosis of pre-eclampsia during pregnancy and in the postnatal period. Once pre-eclampsia is diagnosed, maternal and fetal monitoring is initiated to determine its severity (7). Maternal assessment includes evaluation of subjective symptoms, regular blood pressure measurement, physical assessment and laboratory analyses to guide intervention. Assessment of fetal well-being includes regular non-stress testing to assess fetal oxygenation, ultrasound measurement of amniotic fluid volume, and estimation of fetal growth and gestational age (7). Health professionals should be familiar with these issues and provide the information the pregnant woman needs. American College of Obstetricians and Gynecologists (ACOG) recommends delivery in pregnancies at or beyond 37 weeks of gestation or between 34 and 37 weeks of gestation with severe features of preeclampsia 21. In pregnancies between 20 and 34 weeks of gestation with pre-eclampsia, hospital or home care is provided according to the severity of pre-eclampsia (8). Due to the risk of preterm birth, corticosteroids are administered to increase fetal lung maturity. Although clinical management of pre-eclampsia remains symptom-based, emerging approaches for the prediction and prevention of pre-eclampsia are continuously evaluated for their potential use in evidence-based clinical care (7). According to United Nations International Children's Emergency Fund (UNICEF) data (2019), 86% of pregnant women aged 15 to 49 received prenatal care at least once from healthcare professionals; whereas, only 61% received care at least four times (10). According

to data from the Turkish Demographic and Health Survey (2018), 90% of pregnant women in Turkey receive at least four antenatal care during pregnancy in Turkey (11). Regardless of country, the World Health Organization (WHO) recommends that antenatal care include at least eight antenatal visits (12). In Turkey, the first antenatal follow-up is recommended within the first 14 weeks of pregnancy and physical examination, follow-up of vital signs, and laboratory tests are performed at each visit (13).

Women who have been diagnosed with PE often need specialized care from a multidisciplinary team. PE may require hospitalization for an extended period of time following childbirth, beginning with prenatal admission (1). However, the infant may need an acute care setting, such as an intensive care unit (13). There are studies that examine the physical and psychological effects of pregnancy, which becomes complicated by PE, as well as the long-term health risks (9). However, the number of studies examining the experience of preeclampsia from the woman's own perspective, how she copes with it, and the effect of the care she gets on her experience is limited (14). A qualitative study conducted in Australia found that PE had significant effects on women. Women reported difficulties in motherhood, not knowing how to cope with preeclampsia, and not feeling safe (6). Also, it has been reported in the literature that there is lack of information about understanding the needs of the woman who has been diagnosed with PE and her family, the need for support during the hospital stay, and access to information (6).

It is critical to find out this process from the perspective of women in order to improve the experiences of women with preeclampsia throughout pregnancy and the postpartum period (15). The aim of this study is to analyze women's pregnancy experiences becoming complicated due to preeclampsia and evaluate women's perspectives, how they cope with psychologically, and the effect of the care they get on this experience through a qualitative approach.

Methods

Type of Research

This research is of qualitative research design type.

Universe and Sample

The study population consisted of women who gave birth in the hospital in the last six months between July 2021 and February 2022 and had a history of pre-eclampsia. Women who gave birth in the last six months, had a history of pre-eclampsia in their previous pregnancy, were 18 years of age or older, could speak Turkish, and volunteered to participate in the study were included in the study. Women who did not have telephone, computer or internet access and whose contact information could not be reached were excluded from the study. No sample calculation was made in the study; interviews were continued until data saturation was realised.

Data Collection

Appointments were scheduled with women for interviews; those who were eligible for the appointment were interviewed face-to-face in a quiet room in the hospital, while the others were interviewed through Zoom. The university hospital, where the study was conducted, is located in the city center and serves people in a wide socio-cultural spectrum as a tertiary hospital. The contact information of the women to be included in the sample was obtained from the archive after getting institutional permission from the hospital.

Qualitative interviews were recorded on a voice recorder with the consent of the participants. The researchers used a demographic questionnaire and a semi-structured interview based on previous studies to collect data (6,14). The semi-structured interview form included six open-ended questions. Demographic questions were presented in the first section of the interview form, and questions regarding preeclampsia experiences were included in the second section. The interviews were held on topics such as pregnant women's pregnancy and postpartum experiences, their feelings during this period, their support networks, and changes in their lives after being diagnosed with preeclampsia. Table 1 shows the content flow plan for the interviews. The researchers held individual in-depth interviews by preserving privacy. Each interview lasted for 30 and 65 minutes on average. The interviews were held until data saturation realized. Eighteen women who gave birth with the diagnosis of PE were interviewed between the specified dates and three women declined to participate in the study.

Table 1. Interview guide
Engagement question
Could you tell us what information you got in the hospital when you were diagnosed with preeclampsia, what information you received throughout your pregnancy, and before you were discharged from the hospital?
Subsequent questions
At what gestational week were you diagnosed with preeclampsia?
Could you tell us about your pregnancy and postpartum period after being diagnosed with preeclampsia? What did your experience? How did you cope with them (hospitalization, tests, infant's health, and your own health)?
What were the health consequences of being diagnosed with preeclampsia for you and your infant?
Do you believe you got enough family/social support during this time? Who supported you the most?
What changes have you made or intended to make in your lifestyle after being diagnosed with preeclampsia (health check-ups, becoming pregnant again)?
Did you get any information about preeclampsia when it first appeared? How did you get this information?
Exit question
Is there anything else you'd like to say about your preeclampsia experience?
Probes in order to minimize misunderstandings
Can you give an example for this?
Could you please tell me more about it?

Ethical Approval

Ethical approval (Number: 106041-Date: 06/04/2021) was given by the Republic of Turkey Istanbul University Social Studies and Humanities Research Ethics Committee. The study was conducted in accordance with the provisions of the Helsinki Declaration of 1964 (2013 as revised in Brazil). The participants' verbal and written consents were acquired after they were informed about the objective and duration of the study. Time was set aside for questions. While collecting and storing participant information, confidentiality was maintained. Audio recordings of the interviews were retained until they were transcribed into text using Microsoft Word. During the speech-to-text conversion, the identities of the participants were anonymized and the transcription files were encrypted. Each transcription was shared with the participant who provided the data in that file and approved the content. Audio recordings, texts and information forms will be stored in a locked cabinet for two years and will be destroyed at the end of the storage period in the disposal unit of the relevant institution.

Data Assessment

The quantitative data were analyzed using IBM SPSS 21 statistical software. The interview responses were analyzed using content analysis. Both researchers analyzed the data obtained from in-depth interviews independently by reading them repeatedly. Data were subjectively interpreted in content analysis utilizing a systematic classification process and a coding system (15). The participants' remarks were utilized exactly as they were (16). The final documents were sent to the participants via-email, and the content of the statements was verified (15). During the assessment process, all transcripts were read and interpreted again and again. Secondly, all significant data was coded. Thirdly, the codes were classified according to the experiences of pregnant women who were diagnosed with PE (17). The themes were then revised and their validity was assessed by reading all of the codes. The themes were then defined and named (18). Finally, the report was generated based on a review of the literature. The authors conducted the interviews, transcriptions, translation, and thematic analyses (19). Selected

Table 2. Characteristics of women with preeclampsia in the study	
Characteristics	**n (%)**
Age (years), mean±SD (min-max)	30.1±4.1 (23-36)
Gestational age Preterm birth* Term birth**	 11 (61.1) 7 (38.9)
Time after birth, mean±SD (min-max)	90.3±44.6 (5.0-170.0)
Number of living children 1 2 and more	 10 (55.5) 8 (44.5)
Educational Status Primary School Secondary School High School University and above	 2 (11.1) 3 (16.6) 8 (44.5) 5 (27.8)
Week of diagnosis of preeclampsia, mean±SD (min-max)	28.5±3.8 (24.0-34.0)
Days in hospital care 2-6 7-11	 16 (88.8) 2 (11.2)
*Birth before 37 weeks of pregnancy (27+3±36+6). **Birth after 37 weeks of pregnancy (37+4±40+3).	

sections of the transcripts were italicized and inserted into the report. The interviews were held in a comfortable and friendly atmosphere for the participants. During the interview, the mental states and behaviors of the participants were noted and inferences were drawn accordingly. The Consolidated Criteria for Reporting Qualitative Research (checklist was followed) (20).

Results

The mean age of 18 participants included in the study was 30.1±4.1 (min: 23-max: 36). A great majority of the participants (44.5%) were high school graduates. While 61.1% of the participants had preterm births, 38.9% had term births. The mean time after delivery was 90.3±44.4 (min: 5.0-max: 170.0) days. 55.5% of the participants had one child while 44.5% had two or more living children. The mean week of diagnosis of PE for women was 28.5±3.8 (Table 2).

The experiences of the women participating in the study were exhibited in five themes: 1) reaction to the diagnosis of PE, 2) postpartum effects of PE, 3) gathering information, 4) social support, and 5) lifestyle changes and pregnancy intention (Table 3).

Reaction to the diagnosis of PE

The participants' reactions to the diagnosis of PE were divided into two categories: active and passive. Observable behavioral efforts are classified as the active reaction in the literature, whereas unobservable emotional and cognitive efforts are classified as the passive reaction (21). Seeking a remedy in an emergency, acting out of control, and rebelling were included in the class of active reaction, while surprise and fear, feeling helpless, and accepting were included in the class of passive reaction.

> "I really don't know what's causing my blood pressure problem and I'm curious. Why was this happening to me? Because I'm young... There is no one in my family who has high blood pressure and I have never had high blood pressure even once." (P6)

> "They said, 'You will have a baby tomorrow.' I didn't know what to do at that moment. Because we planned the delivery later and my baby was younger...Nothing was ready for me; all I knew was that it was rushed and I had to prepare quickly for the delivery." (P2)

> "I was horrified when the doctor informed

Table 3. Themes relating to the participants' experiences during pregnancy and postpartum period		
Classification	**Categories**	**Subcategories**
Reaction to the diagnosis of PE	Active reaction	Seeking a remedy in an emergency Acting out of control Rebelling
	Passive reaction	Surprise and fear Feeling helpless Accepting
Postpartum effects of preeclampsia	Emotional difficulty	Feeling secondary Concern for her baby's health and her own health Feeling guilty
	Physical separation from the baby	Lack of mother-infant attachment Challenges in coping with separation
Gathering information	Information sources	Close circle Healthcare professionals Internet
	Information adequacy	Sufficient information Lack of knowledge Individualized information
Social Support	Sufficient social support	Spouse, mother, relative, friend
	Insufficient social support	Insufficient or no social support
Lifestyle changes and pregnancy intention	Acquiring lifestyle changes	Aiming to achieve weight control Paying attention to diet Exercising regularly
	The intention of getting pregnant again	Being withdrawn and afraid of getting pregnant again Planning and desire of getting pregnant again

me at the routine check that I may have pregnancy poisoning; believe me, I don't want to remember how I felt even now. Everything was okay; both the baby and I were healthy. But I eventually accepted the circumstance and tried to do the best I could." (P11)

"There was no need to be concerned or overreact, I told myself that people can cope with far worse circumstances... My mother was telling me that it happened to her, and I was expecting something like this..." (P16)

Postpartum effects of preeclampsia

All of the participants reported that they were adversely affected by PE. These were grouped as "emotional difficulty" and "physical separation from the baby". The emotional difficulty category included feeling secondary, worrying about her baby and her own health, and feeling guilty.

There was a lack of mother-infant attachment and difficulties in coping with separation in the category of physical separation from the baby.

"I was exhausted after giving delivery, and the pain was excruciating. My blood pressure remained elevated. However, people seemed to be more concerned about my baby than me. I felt somewhat less important, almost abandoned..." (P13)

"...during this period, I wanted to be close to my baby. I read on the internet that skin-to-skin contact is crucial after childbirth, but we didn't have that chance since my baby was in intensive care. I was weeping a lot when I looked at his images." (P15)

Gathering information

The theme of gathering information included

"information sources" and "information adequacy." Almost 80% of the participants claimed they learned about PE on the internet, while others from their close circle and healthcare professionals. The participants, on the other hand, stated that the information they gathered exacerbated their anxiety. The women reported that they gathered information from multiple sources rather than just one. They reported that they had difficulty in understanding the information they were given by health professionals and the explanations they were provided mostly consisted of medical terminology. While 77.7% of the participants reported a lack of knowledge about PE, few of them reported that they had sufficient knowledge. Almost all participants, however, indicated that they were unable to get personalized information.

> "... sure, the physicians were providing information, but during the morning visit, they were speaking quickly and mostly among themselves. They never said what would happen in the long run... People dive into the internet out of curiosity. But there's a lot of terrible stuff written on it. You swear that you'll die immediately (upon reading it)." (P9)

> "Actually, I suffered a pounding pain in my head for many hours when the nurses came to measure my blood pressure or the physicians were making a statement during the control." "I was having difficulty in understanding or remembering what was said. I wish that information had been provided in writing..." (P17)

> "The medical staff was continually taking care of me and informing me of what was going on every step of the way. They were quite confident in themselves and their knowledge, which made me feel safe. That made me really pleased." (P10)

Social Support

While the majority of the participants reported that social support was sufficient, two reported insufficient social support and one reported no social support. However, the participants stated that they received the social support mostly from their spouses, mothers, relatives and friends, respectively.

> "I think we might call it a traumatic experience since it was rather dramatic, but I didn't feel compelled to falter because I had two great supports, my mother and my husband. I couldn't manage without them. I cannot give their dues." (P4)

> "I was talking a lot with my friends, and they were really supportive, but speaking over the phone or through text is quite different from communicating face-to-face. In this period, people simply seek human interaction." (P18)

> "Everyone in my family stayed in the country. I was alone in the huge hospital and a distant relative of mine was coming to meet my needs during visiting hours. I felt horrible; it was tough." (P1)

Lifestyle changes and pregnancy intention

The majority of participants (88.8%) reported that they intended to adopt healthy living habits in the future. In this context, they stated that they aim to achieve weight control, they would pay attention to their diet, and plan to exercise regularly.

> "My doctor told me that being overweight puts me at risk for PE. I'm going to be more attentive to my health and diet from now on. If required, I'll consult with a dietician so I can get myself together a bit..." (P7)

While in the other sub-theme, pregnancy intention, 55.5% of the participants reported that they were withdrawn and afraid of getting pregnant again, and the rest stated that they intended to plan pregnancy again.

> "This pregnancy has placed a lot of burden on me as if I had three pregnancies. That's why I doubt I'll ever want another child. I'm getting older. My doctor also advised me that becoming pregnant again may be risky." (P8)

> "I'd like to plan for another pregnancy in three or four years. Even if the condition recurs, at least this time I am a slightly more experienced for what could happen or what I should do. I believe I can manage it." (P1)

Discussion

The experiences of women diagnosed with PE in accessing information and care during pregnancy and postpartum period were investigated in this study.

Reaction to the diagnosis of pre-eclampsia

When they were diagnosed with PE, some of the women felt away and behaved irrationally, while others felt helpless and accepted the condition. In an Australian study, women reported feeling guilty, helpless, and disappointed when they were initially diagnosed with PE (6). In a Swedish study, women also reported feeling anxious and terrified (14). Another study found that 86.7% of women who were diagnosed with PE were more concerned about their babies than for themselves (22).

Information gathering

The majority of the women report that their concerns about PE increased as a result of their lack of knowledge. In this study, the majority of women reported that they gathered information from the internet, their close circle and healthcare professionals. The participants were dissatisfied with the information they gathered from healthcare professionals since it wasn't specific to them and was not well understood. In the literature, it is stated that PE negatively affects the central nervous system (23,24). Furthermore, it is suggested that there is a correlation between PE and cognitive functions, which supports the idea that the information provided may be difficult to comprehend during the acute phase of the disease (24). Moreover, it is believed that the stress expressed due to the concerns about the health of herself and her baby, as well as the separation from her baby also lowers the perception levels of women (9). Healthcare professionals should ensure that women in this situation access the information they need and confirm that the information is adequately understood. However, many of the women did not find the information they received sufficient. In the literature, women state that their opinions and informed consent are not taken while making medical decisions (14). An individual-centered approach was reported to be beneficial in the management of high-risk pregnancies and the continuity of care (1).

Postpartum effects of pre-eclampsia

The compelling effects of PE persist in the postpartum period as well (1,25). In this study, women expressed feeling neglected and guilty about being separated from their babies. In one study, women stated they required more assistance and care as long as their babies stayed in the intensive care unit. In another study, women reported that they would like to benefit more from 'skin to skin' care with their babies in the intensive care unit. In a study, it was found that although the anxiety of women with severe PE alleviated over time in the first six weeks postpartum, their depression levels increased (25). Another qualitative study revealed that pregnant women with PE who stayed in the hospital for seven days or longer reported an increase in physical symptoms, lack of family and social support, and the presence of anxiety (15).

Social support

In a literature review, women who gave birth with the diagnosis of PE should be assessed early for the risk of depression, anxiety, and post-traumatic stress disorder, and those who need it should be supported (6). However, social support becomes important throughout this period (26). In this study, women reported receiving the social support mostly and sufficiently from their spouses; whereas, some of women indicated that they could not get any social support at all. One study revealed that women with PE perceived more stress and less social support than healthy women (27). The support of their husband, mother, or mother-in-law is absolutely crucial in allowing these women rest physically and psychologically after giving birth (6). A study investigating adaptation to lifestyle changes following PE reported that spousal support was a factor improving women's motivation for change, and this support contributes to sustainability (26).

Lifestyle changes

Women diagnosed with PE should get appropriate information on leading a healthy life in order to reduce their future risk of the disease (28). So far, women have received neither a systematic follow-up to assess these risks nor appropriate information about further risks and lifestyle interventions (29). In this study, the participants reported that they would pay attention to their diet and exercise on a regular basis. In one study, women diagnosed with PE claimed in a focus group interview that they would practice yoga as a postpartum healthy lifestyle activity, check regularly their blood pressure in the first year, drink water instead of carbonated water, and join support groups (30). In their study, Uğurlu et al. (2021) found that the training and counselling program provided to women diagnosed with PE

supported to develop healthy lifestyle behaviors among pregnant women (28). Although women are aware of this matter, they may have difficulties in putting it into practice (29). Therefore, healthcare professionals should make planning specific for individuals, partners should support women, particularly in infant care, and women's engagement in motivation-boosting activities such as group therapies should be encouraged (28).

Previous studies that reported women's perspectives on complicated pregnancy experiences often focused only on pregnancy, the delivery admission process, or the first 24 hours postpartum. This study provides a comprehensive assessment of a woman's experience with PE from diagnosis through the first six months following delivery. All of the women interviewed for this study had their pregnancy care at a hospital. This hospital features a multidisciplinary team that provide care based on solid evidence-based policies and practices. This continuity of care may have positively affected the women's experience in this study.

Limitations

The findings of this study may only be applicable to this sample and can not be generalized. The university hospital, where the study was conducted, serves a broad population. However, it is unclear whether or not the experiences of women with PE who get service at hospitals, particularly those in rural regions, would differ.

Conclusion

Women with PE encounter challenges not only during pregnancy but also in the postpartum period. The results of the present study suggest that healthcare professionals should pay more attention to the personalized and detailed information needs of women. Additionally, it comes out that further support is needed due to the increasing stress, anxiety and hopelessness of being separated from the newborn. The understanding of written and verbal information about PE repeated at hospital admission and afterwards by women should be confirmed. Further studies are required to determine whether the care provided assistance to the experience of women with PE and cope with the condition. There is also a need for further screening of women's mental health and depressive symptoms during pregnancy complicated by severe PE. Consequently, individualized care planning and postpartum follow-up visits are recommended as a step for improving the care provided for women whose pregnancy has become complicated by PE.

Informed Consent: Consent form was filled out by all participants.

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