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Experiences of Women with Preeclampsia

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Abstract---*Preeclampsia is a pregnancy complication characterized by high blood pressure and proteinuria that arises after a gestational age of 20 weeks. Pre-eclampsia is one of the obstetric diseases with the most severe complication rates. Research on increasing knowledge, causes, prevention, treatment of pre-eclampsia, and strong evidence of the traumatic impact on short-term and long-term psychological health has been widely undertaken. However, there has been relatively little study on mothers' experiences with preeclampsia. This Scoping Review aims to find out the experiences of mothers with pre-eclampsia. The method used is Scoping Review using Willey Online Library, PubMed, and ScienceDirect databases. The search results that match the criteria are then analyzed to generate these articles. The appraisal study uses Joana Briggs Institute (JBI), and the synthesis method uses PEOS modification. Of the 152 articles relevant to titles and abstracts, seven articles met the inclusion and exclusion criteria. The review discovered four themes that affect mother experience with preeclampsia: maternal reaction, obstacles, impact, and coping. This study contributes to the understanding that the condition of women with preeclampsia during pregnancy and childbirth still requires medical professionals' attention, particularly regarding awareness of perceived symptoms and information regarding pregnancy with preeclampsia.*

Keywords---*blood pressure, experience, maternal, preeclampsia, pregnancy complication*

Introduction

Pregnancy is a natural process that begins with the encounter of eggs and sperm cells (fertilization) and then continues with deletion and implantation until the fetus can grow and develop outside the uterus (Sinambela & Sari, 2018). Pregnancy is a physiological condition, however, it frequently happens in conjunction with other states, resulting in a dangerous pregnancy (Kaimuddin et al., 2018). Preeclampsia is one of the most common diseases that endanger pregnancy. This condition is the leading cause of morbidity and mortality; pre-eclampsia affects as many as 5-10% of pregnant women worldwide. Preeclampsia is a pregnancy complication characterized by high blood pressure and symptoms of organ system impairment, most commonly affecting the liver and kidneys (Nabulo et al., 2021). Pre-eclampsia is characterized by pregnancy hypertension and proteinuria after a gestational age of 20 weeks or more (Crombag et al., 2017). In 2015, about 830 women died worldwide every day from complications during pregnancy and childbirth. This complication was caused by preeclampsia 28%, hemorrhage 27%, eclampsia 14%, embolism 14%, infection 11%, complications of labor 9%, and unsafe abortion 8% (World Health Organization, 2019). Preeclampsia with severe symptoms can result in HELLP (Hemolysis, Elevated Liver enzymes, Low Platelet count) syndrome, eclampsia, pulmonary edema, cerebral and severe hypertension diagnosed at gestational age less than 34 weeks. This condition is one of the leading causes of maternal mortality and a significant cause of maternal morbidity, leading to premature birth and perinatal death.

Mothers need to be equipped with knowledge about preeclampsia through Communication, Information, and Education (CIE) carried out by health workers, especially midwives. Based on the study's results, it was found that pregnant women do not know about preeclampsia and its possible dangers (Daryanti, 2020). Pregnant women who are aware of preeclampsia and the danger it causes will seek medical attention or speak with midwives immediately to ascertain whether they are truly suffering from preeclampsia. Thus, first assistance and therapy can be administered to mitigate or prevent the effects of more severe preeclampsia. Experience is the process of getting the truth of information through repeating knowledge acquired during life, whether through education or not, so that prior problem solving may be used to gain knowledge. Experience can influence social observation in behavior (Vitriawan et al., 2017). Preeclampsia is one of the obstetric diseases with the most severe complication rates. Research on increasing knowledge, causes, prevention, treatment of preeclampsia, and strong evidence of the traumatic impact on short-term and long-term psychological health has been widely undertaken. However, there has been relatively little study on mothers' experiences with preeclampsia. Pregnant women with preeclampsia will believe something is wrong with their pregnancy, feel out of control, be afraid of giving birth prematurely, and feel guilty since the maternal disease affects the fetus. It can sometimes frustrate mothers. The lack of psychosocial care and support causes pregnant women to have no desire to get pregnant again in the future. Research on mothers' experiences with preeclampsia can be used to fix problems that have arisen in the past and to gain knowledge for future pregnancy preparation (Crombag et al., 2017). Based on the aforementioned picture of preeclampsia prevalence, it is believed that there is a need for a study on mother preeclampsia experiences. This *Scoping Review* aims to find out the experiences of mothers with preeclampsia (Ettehad et al., 2016; Mancia et al., 1997).

Method

The steps of *scoping review* that researchers do are as follows: focus on *review*, create a PEOS *framework* (*Population, Exposure, Outcome, and Study design*), identify relevant studies, describe the process, identify *literature* using PRISM *flowchart*, data extraction, and *mapping/scoping* (Arksey & O'Malley, 2005; Pham et al., 2014).

Search Strategy

The PEOS (*Population, Exposure, Outcome, and Study design*) framework is used to help identify key concepts in the review focus and develop appropriate terms to describe the problem. The PEOS used are as follows:

Table 1
Framework Research Question

Population	Exposure	Outcomes	Study Research
1. Maternal	1. Preeclampsia	1. Experience	Qualitative study
2. Women	2. Pre-eclampsia	2. Experiences	
3. Women's	3. Preeclamptic	3. Perspectives	
		4. Exploring	
		5. Exploration	

The article search procedure uses journals published between 2011 and 2021. The articles obtained were taken from the electronic databases *Wiley Online Library*, *PubMed*, and *ScienceDirect*. The article search was performed using the keywords ("Maternal") OR ("women")) OR ("women's")) AND ("Preeclampsia")) OR ("pre-eclampsia")) OR ("preeclamptic")) AND ("Experience")) OR ("experiences")) OR ("perspectives")) OR ("exploring")) OR ("exploration") (Poulton et al., 2002; Isetts et al., 2008).

Inclusion Criteria

The inclusion criteria used were articles published in English, articles published between 2011-2021, using qualitative research methods, and no country-specific criteria were intended.

Exclusion Criteria

The Exclusion criteria used are opinion articles, review *articles* (*systematic review* and *literature review*), reports and *commentary*, as well as letters and book reviews.

Search Results

PRISMA results showed that there were 152 articles obtained from three databases. Article selection was carried out based on predetermined criteria for inclusion and exclusion. The research yielded seven related articles. The seven articles obtained were analyzed for their *critical appraisal* using the *Joanna Briggs Institute* (JBI). The research journal selection stage is depicted in the PRISM diagram shown in Figure 3.1.

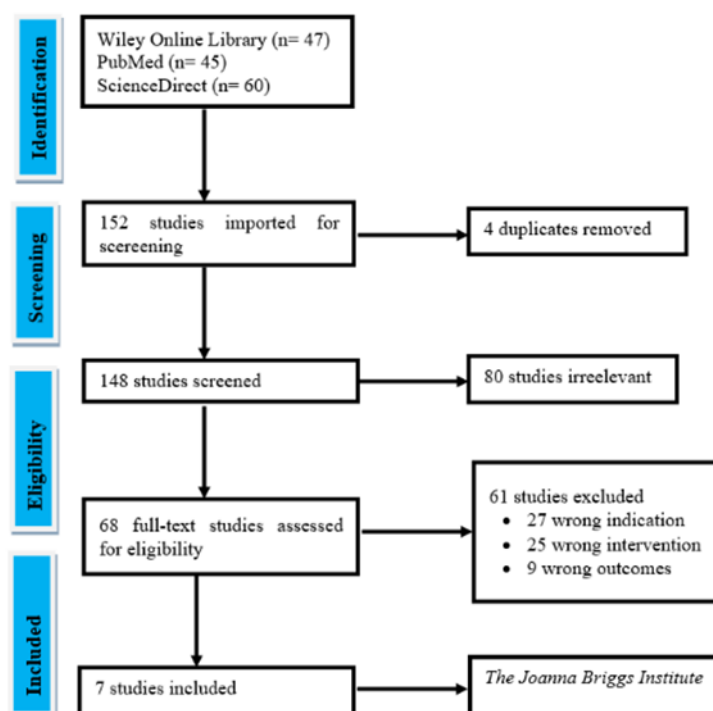


Figure 1. PRISMA Flow Diagram

Extraction Data

The articles that have been obtained are then extracted. The articles are extracted based on the article's author, the year of publication, the country, the number of samples used, the study's findings, and the journal quality (Say et al., 2009; Khan et al., 2006).

Table 2
Extraction Data

No	Author/ Year/Title	Research Design	Participants/ Sample Size	Result
1	Escobar Bermudez & Bejarano Beltran/ 2021/ Experiences of women with preeclampsia in an Obstetric Intensive Care Unit in	Qualitative Phenomenological Studies	11 new mothers with preeclampsia admitted to ICU from Nieva Hospital Universitario (Colombia)	1. Build satisfying relationships 2. The invisible woman 3. Approaching a transpersonal care relationship 4. Seeking understanding

2	Colombia Roberts et al./ 2017/ Pregnancy with gestational hypertension or preeclampsia: A qualitative exploration of women's experiences	Qualitative descriptive	20 women who had hypertension in pregnancy	<ol style="list-style-type: none"> 1. Response to diagnosis (shock, fear, guilt, loss of control) 2. Challenge to become a mother 3. Foster and accept the situation 4. Start with experience
3	Carter/ 2021/ Maternal help seeking about early warning signs and symptoms of pre- eclampsia: A qualitative study of experiences of women and their families	Qualitative narrative	Twenty three women with pre-eclampsia and their families in a British urban environment	<ol style="list-style-type: none"> 1. Risk assessment 2. Self-monitoring 3. Organizational restrictions
4	Sripad et al./ 2019/ Exploring survivor perceptions of preeclampsia and eclampsia in Nigeria through the health belief model	Qualitative	Forty two individual an in-depth interview with women was conducted pre-eclampsia selected and recruited intentionally in the community through referral to health facilities by public health educators.	<ol style="list-style-type: none"> 1. Confidence 2. Attitude 3. Knowledge 4. Consistent female behavior
5	Crombag et al., 2017/ Perspectives, preferences and needs regarding early prediction of preeclampsia in Dutch pregnant women: a qualitative study	Qualitative	Ten focus groups (of which five were with primiparas and five with multiparous women). Six focus groups were conducted in urban areas and four were conducted in rural areas.	<ol style="list-style-type: none"> 1. Positive attitude towards preeclampsia screening 2. Self monitoring 3. Increased awareness of health professionals
6	Kehler et al./ 2016/ Experience of Preeclampsia and Bed Rest: Mental Health Implications	Qualitative description	Age 18-45 years, she has a current diagnosis or history of pre-eclampsia and has been in about 4 rests (at home or in the hospital) for at least 7 days.	<ol style="list-style-type: none"> 1. Having Negative feelings and thoughts 2. Lack of guidelines on their diagnosis 3. Making Family stress 4. Lack of support 5. Not heard 6. Loss of normal pregnancy and physical symptoms
7	Hayes Ryan et al./ 2020/ An exploration of women's experience of taking part in a randomized controlled trial of a diagnostic test during pregnancy: A	Qualitative	19 women who recently participated in a study at a recruitment center. They participated in an Irish PARROT randomized controlled trial during their last pregnancy.	<ol style="list-style-type: none"> 1. Understanding about preeclampsia 2. Motivation for participation in clinical trials 3. Decision-making obstacles 4. Effect of PARROT Ireland on pregnancy experience

qualitative study
Quality Assessment

Seven relevant articles were critically assessed using *The Joanna Briggs Institute (JBI)*. *Joanna Briggs Institute* aims to provide a comprehensive and unbiased synthesis of a number of relevant studies within the boundaries of a single document using rigorous and transparent methods. Thus, the decision is obtained by considering the feasibility of health practices, suitability, meaning, and effectiveness with the best available evidence. The credibility of the knowledge generated and the usefulness of the products produced, based on review studies, according to epidemiological depictions, are closely related to methodological rigidity, an aspect that can be qualified through guidelines from the review center (Santos et al., 2018). From the final result of the article selection, the authors assessed the quality of the article with JBI (Kanasaki & Kalluri, 2009; Friedman et al., 1991).

Results and Discussion

Geographical Characteristics

After reviewing the journal quality assessment of the seven articles, it can be concluded that the articles come from various developed and developing countries. Articles from developed countries include Australia, the United Kingdom, the Netherlands, the United States, and Ireland. Articles from developing countries are coming from Colombia and Nigeria.

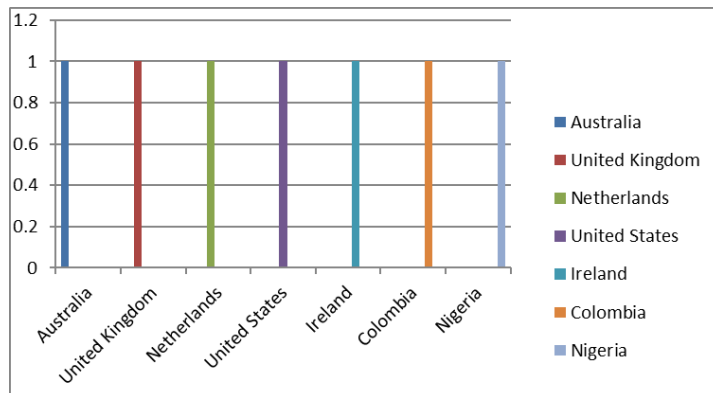


Figure 2. Country Characteristics

The Characteristics of The Joana Briggs Institute (JBI) Grade

An assessment was conducted based on the quality of an article using *The Joana Briggs Institute (JBI) tool Grade* with the results of grade A category (Good), grade B category (Fair), and grade C category (Poor). After passing through the assessment stages, 4 of the nine articles used are included in category A (Good), while 3 item fits into category B (Fair).

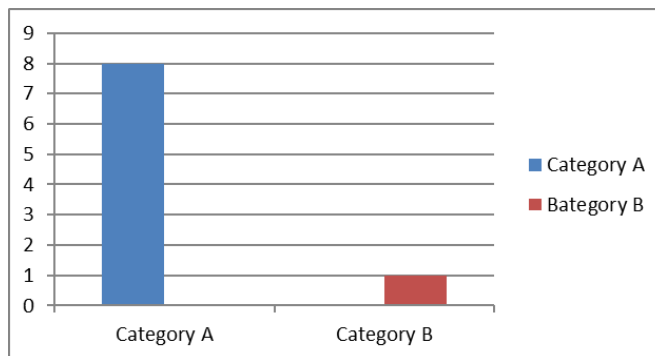


Figure 2. The Characteristics of *The Joana Briggs Institute (JBI) Grade*

Thematic

From the results of the seven articles' *review process*, several themes are found to be consistent with the focus of the review, including the following:

Table 3
Thematic

No	Theme	Sub-themes
1.	Mother's Response	a. Processing and receiving state ^[2] b. Negative feelings and thoughts ^[2, 6]
2.	Stumbling blocks	a. Lack of support ^[6] b. Lack of guidelines on the diagnoses ^[6] c. Organizational constraints ^[3] d. Decision-making ^[7]
3.	Impact	a. Family Stress ^[6] b. The disappearance of normal pregnancy ^[6]
4.	<i>Coping</i>	a. Self-monitoring and understanding ^[1, 3, 4, 5, 7] b. Positive attitude ^[4, 5] c. Building relationships ^[1] d. Risk assessment ^[2] e. Increased health vigilance and awareness ^[1, 3, 5]

Description: the number represents the article code on the data *extraction*

Discussion

Mother's Response

According to [Escobar Bermudez & Bejarano Beltran \(2021\)](#), pregnant women with preeclampsia will feel that there is something wrong with their pregnancy, feel lost in control, fear premature birth, and feel guilty about the possibility of the maternal illness that will have an impact on the fetus. The diagnosis might be discouraging for women who have had similar situations. Processing and accepting the situation. Religious beliefs can impact how mothers perceive and accept their condition. Some women resolve the case by reinforcing the assumption that the risk of eclampsia can be avoided with good ANC and a hospital birth ([Lawan et al., 2015](#)). Negative feelings and thoughts. Mothers can have negative feelings and thoughts about the experience of preeclampsia while being treated in health centers. Some of these negative feelings are characterized as anxiety-related symptoms, with terms such as "stress" and "fear" describing their moods ([Kehler et al., 2016](#)).

Stumbling Blocks

Pregnant women with pre-eclampsia may face a number of challenges, including significant barriers due to geographical factors that increase the disease's prevalence and limit access to health care, cultural and economic factors that influence the care provided, a lack of support, and infrastructure deficits that impede diagnosis and treatment ([Toledo Jaldin et al., 2019](#)). Lack of support of health care providers is frequently mentioned as a potential stumbling block. As a result, family members' involvement in lifestyle adjustments is an essential factor to consider. Women often think their spouses are the most significant person to engage with. Positive involvement from their spouses and family members will provide vital support and influence their efforts to follow a healthy lifestyle and as an additional motivator to pursue lifestyle change ([Hayes Ryan et al., 2020](#)). Lack of diagnosis guidance will affect knowledge of the danger signs of obstetrical complications. It is crucial to recognize complications so that a person can take appropriate action to access emergency care ([Lawan et al., 2015](#)). Organizational constraints for women, such as limited access to online community organizations, will make women unable to exchange thoughts through similar experiences. Yet, discussing ideas will expand their experience, and they will be able to seek assistance through this activity. Some studies state that women's online communities can enable them to help other women who have similar experience problems, which others report as a common reason for participating in online communities ([Hayes Ryan et al., 2020](#)). Low decision making is also influenced by the use of health services. Sometimes, women

and families lack an understanding of the danger or seriousness of preeclampsia or don't even know where to look for help in times of need. This will affect their ability to make decisions about seeking health care (Lawan et al., 2015).

Impact

Mothers diagnosed with preeclampsia will experience rage and anxiety, leaving them unable to cope (Soltani et al., 2015). However, families might also experience the effects, such as stress while dealing with perceived maternal sickness. Family stress can also lead to life threatening complications such as preeclampsia, which can lead to stress disorders in the family. The role of the family, as a solid and organized structure that allows women to discuss and solve problems, can assist individuals in becoming better decision makers, reducing ambiguity and individuals' perceptions of stressful events, and thus preventing stressful effects and carrying out successful tasks. A family that should be able to give complete support might experience stress at times (Soltani et al., 2015). Preeclampsia can lead to the loss of a normal pregnancy. Preeclampsia is considered a two-stage disease in which the placenta produces poor perfusion, a systemic vascular disease causative factor. At eight weeks gestation, trophoblast cells invade the placenta into the maternal tissue and the uterine arteries. These endovascular trophoblast cells facilitate the uterine spiral artery remodeling, which is essential for a normal and healthy pregnancy. For the placentation process to be sufficient to support a healthy pregnancy, extravagant trophoblast cells must avoid detection by alternative pathways, subsequent activation of the complement, and immune response. Immunogenetic susceptibility to pre-eclampsia causes symptoms that have an effect in the early stages of pregnancy where through loss of maternal tolerance to fetal components, the process of placentation is interrupted. On the other hand, during the third trimester, immunogenetic predisposition worsens in the presence of inflammation, which is then exacerbated by systemic dysfunction of the endothelium in the maternal blood vessels and results in the development of increasingly severe preeclampsia (Lokki et al., 2018).

Coping

Coping is a term used to describe cognitive and behavioral efforts to manage psychological stress to ensure psychological and physiological well being (Oni et al., 2015). Self monitoring and understanding are the coping mechanisms where women can accurately identify normal signs and symptoms in pregnancy and must routinely review the progress made in pregnancy (Lawan et al., 2015). The women will conduct their own understanding of pre-eclampsia research and use this knowledge to help seek treatment guidance. Women who use self-monitoring (checking blood pressure, urinary protein levels, counting fetal movements, fetal growth, and maternal weight) (Carter, 2021). Foster a positive attitude. Attitude is a readiness to react to objects in a particular environment and is not immediately apparent. Pregnant women with pre-eclampsia can maintain their positivity by practicing humility and good habits and applying their knowledge. A positive attitude can also be maintained thanks to health workers' efforts to improve further health education about pre-eclampsia in pregnant women and the pregnant women who are always more active in seeking information from health workers. So that mothers and families do not feel anxious and understand what they should do (Mekie et al., 2021). Building relationships is also one of the effective *coping* ways that can be done by sharing experiences, forming positive bonds, mutual respect, developing relationships of mutual trust, proper communication, involvement in decision-making, and contentment with the treatment received from health providers. Health professionals are essential in fostering happy relationships by promoting the sharing of what they know with what others require, allowing them to share their experiences in an environment of mutual respect, communication, and trust (Escobar Bermudez & Bejarano Beltran, 2021).

Risk assessment is also critical. If a woman has a low ANC visit, she is considered to be at risk. Risk assessment may also be considered in partners or families that are unfamiliar with pre-eclampsia, either from signs and symptoms or how to seek treatment after being diagnosed with the disease. Some women have a risk assessment because they get information from health workers to recognize signs and symptoms of pre-eclampsia and know what they should do (Bobetsis et al., 2006; Roy-Matton et al., 2011). Women who are classified as high risk during their first antenatal session are significantly more equipped with their diagnosis and use their knowledge to seek help. Women who are classified as high risk are also more likely to employ self-monitoring, such as monitoring their own blood pressure at home and utilizing some information to improve their ability to seek help on a regular basis (Carter, 2021). Enhancing health awareness is highly important for pregnant women in increasing their understanding of the disease so that they may check in with health professionals without feeling worried and express their feelings comfortably. In the framework of self-care, education is a fundamental element. Education can assist persons in recovering from rehabilitation. Thus, this requirement must be addressed. Nurses must prioritize teaching high-risk pregnant women since a lack of information causes anxiety for them, and only education can convince

them to overcome their worries and wrong belief. Due to their need for information and answers to understand the circumstances, the women stated that they sought information from other sources when the nurses did not provide information about their doubts (Escobar Bermudez & Bejarano Beltran, 2021).

Conclusions and Suggestions

Based on the *results of the Scoping Review* and the discussion, there are four themes taken from the experience of mothers with pre-eclampsia: maternal response, obstacles, impacts, and *coping*. Preeclampsia mothers are vulnerable to physical and psychological changes. This is due to the severe danger that mothers and newborns confront and the existence of extreme anxiety, fear of death, separation from the baby, fear of loss, and helplessness to overcome challenges. Family emotional support is one of the methods that may be used to help women with pre-eclampsia overcome anxiety. Mothers with pre-eclampsia require the support of their families to overcome the challenges they had at the beginning of their pregnancy. They need emotional support where the family can feel and comprehend the mother's emotions while also providing comfort to the expecting woman. The family may provide emotional support through expressions of attention, love, and affection, as well as feelings of appreciation and attention. Early detection and discipline of blood pressure management in pregnancy, prevention, or early diagnosis are the most significant measures in dealing with pre-eclampsia cases to decrease morbidity and mortality. To diagnose early, it is necessary to monitor pregnancy regularly, and pay attention to facial and extremity edema, weight gain, increased blood pressure, and proteinuria tests. Midwives can assist in spreading information and raising awareness of pre-eclampsia throughout pregnancy (Sharma et al., 2022; Kavitha & Raman, 2022).

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