



Scoping Review

SUPPORT, ACCESS AND ANTENATAL CARE TO WOMEN WITH A HISTORY OF PREECLAMPSIA IN PREGNANCY

Evi Diliiana Rospia¹, Andari Wuri Astuti², Retno Mawarti³

^{1,2,3} Program Studi Ilmu Kebidanan Program Magister, Universitas 'Aisyiyah Yogyakarta, Indonesia

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CORRESPONDENCE

E-mail: diliiana.evi@gmail.com

A B S T R A C T

Background: Preeclampsia and eclampsia are the second direct cause of maternal death worldwide, estimated to complicate 2-8% of all pregnancies, the global prevalence of preeclampsia is around 4.6%. The purpose of this scoping review is to provide an overview of studies related to antenatal support, access, and services to mothers with a history of preeclampsia in pregnancy.

Method: the authors identify studies that explain preeclampsia in pregnancy from several databases, namely PubMed, ProQuest, EBSCO, and Springer Link. Searches are limited to studies published in English and present data for the 2009-2019 period. The identified research was reviewed using the PRISMA Flowchart. Studies with qualitative and quantitative designs that explore the experiences of pregnant women regarding antenatal support, access, and services were selected for review. In contrast, studies that were not experience related to prenatal support, access, and services to mothers with a history of preeclampsia in pregnancy were excluded.

Results: A total of twelve articles were reviewed, which obtained three sub-themes of support, namely the support of husband, family, and health workers, from the theme of access obtained three sub-themes, namely information search, modification programs and the availability of health workers. From the idea of antenatal care, four sub-themes are found, namely unsustainable care, lack of information, screening, and feeling empowered.

Conclusion: Pregnant women with preeclampsia need support from a partner or family and health workers. Information and screening need to be improved in antenatal care.

INTRODUCTION

Globally, the maternal mortality ratio has fallen by 38% over 18 years, from 342 in 2000 to 211 per 100,000 live births in 2017 (1). Hypertension disorders (preeclampsia and eclampsia) are the second The direct cause of maternal death worldwide (2), the global prevalence of preeclampsia around 4.6% (3), preeclampsia causes hypertension and proteinuria, prematurity, hypotrophy, and risk of fetal death (4,5). WHO recommends an antenatal care model with a minimum of eight visits to reduce perinatal mortality, increase positive care experience for pregnant women (6) dan, and have significant effects in mothers and fetuses with preeclampsia (7). In developing countries strengthening the public health system and increasing access to maternal health are priorities in reducing Maternal Mortality Rate (MMR) caused by preeclampsia (8). The support of partners,

family and friends is also an essential aspect of a woman's pregnancy period (9).

The experience of women in cases of hypertension and preeclampsia is very much looking forward to social support from partners, family, and friends who can help with healing (10) like emotional support and information support (11). Several factors affect the accessibility of antenatal care, example the influence of socio-cultural contexts and conflict including domestic work, negative influence from husband or mother-in-law, insecurity, misperceptions about the benefits of prenatal care and the risk of pregnancy complications, perception of the quality of adequate medical care, understanding of a hostile environment, no prior antenatal care visit experience, understanding of unavailability of health services, mothers are less exposed to mass media. There are no obstetric

complications during pregnancy (12–14). Also, barriers to utilizing antenatal care services such as access to health facilities and lack of resources include long distances, lack of transportation facilities, costs, affordability, or difficulties in reaching health facilities, availability, and accessibility of providers (13,15,16). This scoping review aims to "how is antenatal support, access, and services to women with a history of preeclampsia in pregnancy?"

METHOD

This study is a scoping review, providing an overview of several studies relating to support, access and antenatal care in women with preeclampsia in pregnancy, including how to take samples, variables and research results. The protocol used in the scoping review is the framework proposed by Peters et al. (17). The author used Framework Population, Exposure, Outcome, dan Study design (PEOS) (Table 1) as a reference in identifying key concepts that are consistent with the objectives of this study.

Table 1. Framework PEOs

<i>Problem</i>	<i>Exposure</i>	<i>Outcome</i>	<i>Study Design</i>
- Support	- pregnancy with	- women's	- Any study
- access	- gestational	- experiences	- related to
- access to	- hypertension	- women's	- support,
- care	- pre-eclampsia	- views	- access and
- service*	- pregnancies	- women's	- antenatal
- "antenatal	- preeclampsia	- perspectives	- care of
- care."	- preeclampsia	- women's	- women with
- "prenatal	- pregnancy	- opinions	- preeclampsia
- care."	- toxemia	- women's	- in pregnancy
- pregnancy	- gestational	- needs."	
- care	- toxemia		
- services	- hypertension		
- for	- gestational		
- pregnant	- hypertension		
	- hypertensive		
	- gestational		
	- pregnancy-		
	- induced		
	- hypertension		

Inclusion / Exclusion Criteria

The author limits the studies published in English in the past ten years (2009-2019). The chosen research is original research (and not review, grey literature, book/report). Studies are selected when reporting directly on the experiences and views of pregnant women (not through staff opinions or observational data), the experience of pregnant women with preeclampsia related to support, access, and antenatal care. The author does not

limit the research design according to the framework on the scoping review.

Data Sources and Search Strategies

This scoping review uses several databases by PubMed, EBSCO, ProQuest dan Springer Link from 2009-2019. The search strategy goes through several processes, namely analyzing common words contained in the title, abstract and index terms (keywords). Keywords use a boolean search strategy (AND and OR as a link in the search to produce relevant data). All keywords are entered in a search on the database, next check the reference list from the selected study through the full text.

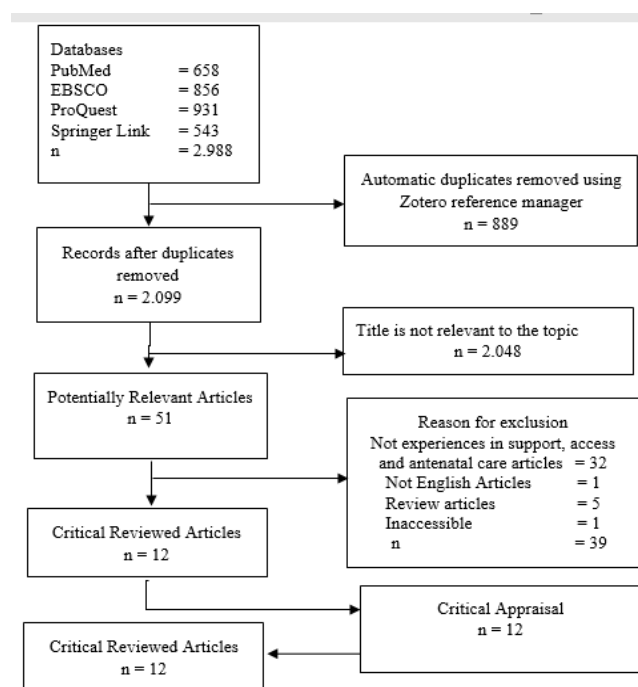
Study screening and selection

At the stage of screening and selection of studies, the author uses the PRISMA Flowchart (Figure 1), first stage screening the author only reviews the titles and citations contained in the abstract. All claims and abstracts that are considered relevant are reviewed in full-text articles following the inclusion and exclusion criteria, and the next stage, the researcher conducted a critical appraisal by *form Critical Appraisal Skills Programme*.

RESULTS AND DISCUSSION

Search result

Figure. 1 PRISMA Flowchart



Initial study search identified 2,988 studies (Table. 2), after screening 51 selected full-text studies were potentially

relevant and independently reviewed, 32 studies were excluded because they did not meet the inclusion criteria.

Main Findings

a. Support

1) Husband and family support

Support from family, spouse, and friends are significant to help the mother in the recovery process; some mothers feel they need more assistance. At the same time, being hospitalized but are sometimes hampered by hospital regulations (11), women depend on their partners and family, but sometimes they are worried that the family will experience stress due to the women condition (18). Husband as a supporter of monitoring maternal blood pressure at home in pregnancy with preeclampsia (19). Prevention of preeclampsia with emotional support can be formed from good relationships with the mother-in-law, sharing homework with husband, while the role of husband and father-in-law as facilitators in providing permits, arranging transportation and financial support (20).

2) Health Care

Hospitalization will affect emotionally, physically and socially so that mothers are very dependent on health workers (21), the mother cannot take care of herself, medical care according to the mother's condition and physical care such as sleeping, bathing, and eating, especially when in intensive care (22) women appreciate the extra support, guarantees, and information that health workers can provide (19), in cases of maternal outpatient showing dependence on health workers and expect additional monitoring for hypertension (23). Lack of support from health workers such as no interpersonal relationships, feel repaired, maternal questions that have not been answered, and complaints that have not been addressed by health workers (18). Less responsive to health workers because they do not combine clinical skills with interpersonal and cultural skills at work (24).

3) Friends.

Pregnant women with preeclampsia have higher stress and less social support from friends and relatives compared to normal pregnant women (25), friends and relatives don't know what to do to help their mother and

baby (26). Stress in pregnant women because of worry and fear something terrible happens to him (27). Negative feelings such as guilt, premature birth for not maintaining a good pregnancy (28), symptoms of postpartum depression (29), education and home visits women can adapt physiologically and psychologically after delivery (30)

b. Access

1) Search for information

Women are actively seeking information from outside sources, especially the internet, books or friends, mothers are more selective and avoidance information that has the potential to trigger anxiety (23,31,32), pregnant women need information related to early detection of preeclampsia (19) and further details about the mother's condition, especially if there is a risk of preeclampsia (32).

Practices that are not suitable evidence-based make women doubt the information provided by health care (18). 97,5 % of women will look for information about preeclampsia in a few weeks or several months during the first year (33), such as information and reports about the psychological effects of preeclampsia and future children's health (34). The same results state that mothers are not satisfied with the accessibility and quality of health services received during pregnancy, childbirth, and the postpartum (35), as evidenced by the low use of WHO-recommended practices for screening and management of preeclampsia and eclampsia (36).

2) Modification program

Mothers choose online lifestyle modification programs as interventions in improving healthy lifestyles because they are more flexible and easily accessible (31).

3) Availability of health care

Mothers with a history of preeclampsia have more anxiety and need proper medical care in subsequent pregnancies (26). The clinic is bustling, so health care is in a hurry at the time of the examination (32). You can only contact the office health care when there are questions or problems (18).

c. Antenatal Care

1) Continuous care

Continuous care is essential for mothers who know and know their health history, being cared for by someone who is known to make mothers more safe and comfortable (11). Unsustainable care causes information provided by health service providers to be inconsistent (18). The continuation of care can affect the experience of women during pregnancy and childbirth (37–39).

2) Lack of information

women don't get information about preeclampsia during antenatal care (18,31) and don't know the symptoms of hypertension (40) and during hospitalization (41). 67,5% of pregnant women do not know preeclampsia before diagnosis (33), education through pregnancy books and reasons for checking blood pressure and urine regularly was never conveyed by health workers (32).

Women and family are not aware of having eclampsia due to lack of information, and after hospitalization, the women have not been informed about the women's condition and future health impacts (22), health care are aware of the lack of maternal knowledge about preeclampsia but are ignored because of its focus on maternal treatment and responsibility (41). Women experience frustration in confronting health care because it receives different information, does not collect information related to the women's condition (18), information about the women's situation will provide a sense of security and comfort.

3) Screening

Screening programs increase anxiety without providing clear benefits (23) but concluded that mothers involved with blood pressure monitoring could reduce some stress during pregnancy (19). *International Federation of Gynecology and Obstetrics* (FIGO) recommends services that focus on public health, screening, routine screening in pregnancy, and preventive measures in cases of preeclampsia (42).

4) Empowered

Feel empowered in monitoring your blood pressure (19), and women are happy to participate in decisions about care and receive further information from health workers about preeclampsia (32).

CONCLUSIONS

Pregnant women with preeclampsia need support, such as the presence of a spouse or family, friends, and attention from health workers. The availability of health workers and access to flexible information are maternal needs that need attention in cases of preeclampsia. Detailed information about the state of the mother, proper screening with routine monitoring is a priority for health workers in providing services for pregnant women with preeclampsia

Table 2. Characteristic of the Study

No.	Title	Author/Year	Types of Research	Participant
1.	The psychological impact of providing women with risk information for preeclampsia: A qualitative study	Harris et al. / 2014	Qualitative	15 primigravida high-risk (n = 10) low-risk pregnancies (n = 5) 12week pre-eclampsia screening test results
2.	Women's Experiences of Preeclampsia: Australian Action on Preeclampsia Survey of Women and Their Confidants	C. East et al. / 2011	Survey	112 members of consumer groups and partners or friends at Australian Action on Pre-Eclampsia (AAPEC)
3.	Pregnancy with gestational hypertension or preeclampsia: A qualitative Exploration of women's experiences	Roberts et al. / 2017	Qualitative	20 women had experienced pregnancy hypertension
4.	Women's experiences of preeclampsia: a prospective survey of pre-eclamptic women at a single tertiary centre	Frawley et al. / 2019	Survey	40 mothers who experienced preeclampsia
5.	What outcomes should researchers select, collect, and report in preeclampsia research? a qualitative study exploring the views of women with lived experience of preeclampsia	J. Duffy et al. / 2019	Qualitative	30 women had experienced preeclampsia in pregnancy

6.	Exploring knowledge of preeclampsia and views on a potential screening test in women with type 1 diabetes	Wotherspoon et al. / 2017	Qualitative	11 pregnant women / postpartum type 1 diabetes with experience of preeclampsia in pregnancy
7.	Blood pressure self-monitoring in pregnancy (BuMP) feasibility study; a qualitative analysis of women's experiences of self-monitoring	Hinton et al. / 2017	Qualitative	Fifteen pregnant women are at high risk of preeclampsia.
8.	Risk of future cardiovascular disease in women With prior preeclampsia: a focus group study	Seely et al. / 2013	Qualitative	20 women with a history of preeclampsia
9.	Experience of Preeclampsia and Bed Rest: Mental Health Implications	Kehler et al. / 2016	Qualitative	Seven women with a history of preeclampsia in pregnancy
10.	An analysis of the meanings of preeclampsia for pregnant and postpartum women and health professionals in Rio Grande do Norte, Brazil	de Azevedo et al. / 2011	Qualitative	61 women (51 pregnant and ten postpartum) for the word association test Twenty women (18 pregnant and two postpartum) for semi-structured interviews.
11.	Women's experiences of having had, and recovered from, eclampsia at a tertiary hospital in Tanzania	Mukwenda et al. / 2017	Qualitative	Ten women with a history of preeclampsia in pregnancy
12.	Comparing Perceived Social Support and Perceived Stress in Healthy Pregnant Women and Pregnant Women with Preeclampsia	Sarmasti et al / 2019	Qualitative	50 pregnant women with preeclampsia and 50 normal pregnant women

REFERENCES

- WHO, UNICEF, UNFPA WBG and the UNPD. Trends in maternal mortality 2000 to 2017 [internet]. World Health Organisation. 2019 [cited 2020 Jan 3]. Available from: <https://www.who.int/reproductivehealth/publication/s/maternal-mortality-2000-2017/en/>
- Say L, Chou D, Gemmill A, Tunçalp Ö, Moller A-B, Daniels J, et al. Global causes of maternal death: a WHO systematic analysis. *Lancet Glob Heal* [Internet]. 2014;2(6):e323-33. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25103301>
- Abalos E, Cuesta C, Grosso AL, Chou D, Say L. Global and regional estimates of preeclampsia and eclampsia: a systematic review. *Eur J Obstet Gynecol Reprod Biol* [Internet]. 2013 Sep [cited 2020 Jan 2];170(1):1–7. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S0301211513001966>
- Haavaldsen C, Strøm-Roum EM, Eskild A. Temporal changes in fetal death risk in pregnancies with preeclampsia: Does offspring birthweight matter? A population study. *Eur J Obstet Gynecol Reprod Biol X* [Internet]. 2019 Apr 1 [cited 2019 May 22];2:100009. Available from: <https://www.sciencedirect.com/science/article/pii/S2590161319300456>
- Manaj A, Rrugia A, Manoku N. The impact of preeclampsia in pregnancy. *J Prenat Med* [Internet]. 2011 Jan [cited 2019 May 21];5(1):19–22. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/22439070>
- World Health Organization. ANC guideline-presentation [Internet]. 2016. p. 46. Available from: www.who.int/reproductivehealth/news
- Mohamed Shaker El-Sayed Azzaz A, Martínez-Maestre MA, Torrejón-Cardoso R. Antenatal care visits during pregnancy and their effect on maternal and fetal outcomes in pre-eclamptic patients. *J Obstet Gynaecol Res* [Internet]. 2016 Sep [cited 2019 May 22];42(9):1102–10. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27225965>
- Osungbade KO, Ige OK. Public health perspectives of preeclampsia in developing countries: implication for health system strengthening. Vol. 2011, *Journal of pregnancy*. 2011. p. 481095.
- East CE, Biro MA, Fredericks S, Lau R. Support during pregnancy for women at increased risk of low birthweight babies. *Cochrane Database Syst Rev* [Internet]. 2019 Apr 1 [cited 2019 May 13];(4). Available from: <http://doi.wiley.com/10.1002/14651858.CD000198.pub3>
- Sanchez G V., Roberts RM, Albert AP, Johnson DD, Hicks LA. Effects of Knowledge, Attitudes, and Practices of Primary Care Providers on Antibiotic Selection, United States. *Emerg Infect Dis* [Internet]. 2014 Dec [cited 2019 Apr 24];20(12):2041–7. Available from: http://wwwnc.cdc.gov/eid/article/20/12/14-0331_article.htm
- Roberts LM, Davis GK, Homer CSE. Pregnancy with gestational hypertension or preeclampsia: A qualitative exploration of women's experiences. *Midwifery* [Internet]. 2017 Mar [cited 2019 Aug 18];46:17–23. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S0266613817300153>
- Ahmed I, Ali SM, Amenga-Etego S, Ariff S, Bahl R, Baqui AH, et al. Population-based rates, timing,

- and causes of maternal deaths, stillbirths, and neonatal deaths in south Asia and sub-Saharan Africa: a multi-country prospective cohort study. *Lancet Glob Heal* [Internet]. 2018 Dec 1 [cited 2019 May 22];6(12):e1297–308. Available from: <https://www.sciencedirect.com/science/article/pii/S2214109X18303851>
13. Nisar Y Bin, Aurangzeb B, Dibley MJ, Alam A. Qualitative exploration of facilitating factors and barriers to use of antenatal care services by pregnant women in urban and rural settings in Pakistan. *BMC Pregnancy Childbirth* [Internet]. 2016 Dec 1 [cited 2019 May 9];16(1):42. Available from: <http://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-016-0829-8>
 14. Wilunda C, Scanagatta C, Putoto G, Montalbetti F, Segafredo G, Takahashi R, et al. Barriers to utilization of antenatal care services in South Sudan: a qualitative study in Rumbek North County. *Reprod Health* [Internet]. 2017 Dec 22 [cited 2019 May 13];14(1):65. Available from: <http://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-017-0327-0>
 15. Biza A, Jille-Traas I, Colomar M, Belizan M, Requejo Harris J, Crahay B, et al. Challenges and opportunities for implementing evidence-based antenatal care in Mozambique: a qualitative study. *BMC Pregnancy Childbirth* [Internet]. 2015 Dec 2 [cited 2019 May 9];15(1):200. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26330022>
 16. Fagbamigbe AF, Idemudia ES. Barriers to antenatal care use in Nigeria: evidences from non-users and implications for maternal health programming. *BMC Pregnancy Childbirth* [Internet]. 2015 Dec 17 [cited 2019 May 9];15(1):95. Available from: <http://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-015-0527-y>
 17. Peters MDJ, Godfrey CM, Khalil H, McInerney P, Parker D, Soares CB. Guidance for conducting systematic scoping reviews. *Int J Evid Based Healthc*. 2015;13(3):141–6.
 18. Kehler S, Ashford K, Cho M, Dekker RL. Experience of Preeclampsia and Bed Rest: Mental Health Implications. *Issues Ment Health Nurs*. 2016;37(9):674–81.
 19. Hinton L, Tucker KL, Greenfield SM, Hodgkinson JA, Mackillop L, McCourt C, et al. Blood pressure self-monitoring in pregnancy (BuMP) feasibility study; a qualitative analysis of women's experiences of self-monitoring. *BMC Pregnancy Childbirth* [Internet]. 2017 Dec 19 [cited 2019 Aug 18];17(1):427. Available from: <https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-017-1592-1>
 20. Khowaja AR, Qureshi RN, Sheikh S, Zaidi S, Salam R, Sawchuck D, et al. Community's perceptions of preeclampsia and eclampsia in Sindh Pakistan: A qualitative study. *Reprod Health*. 2016;13(1).
 21. Duffy J, Thompson T, Hinton L, Salinas M, McManus R, Ziebland S. What outcomes should researchers select, collect and report in preeclampsia research? A qualitative study exploring the views of women with lived experience of preeclampsia. *BJOG An Int J Obstet Gynaecol* [Internet]. 2019 Apr [cited 2019 August 16];126(5):637–46. Available from: <http://doi.wiley.com/10.1111/1471-0528.15616>
 22. Mukwenda AM, Mbekenga CK, Pembe AB, Olsson P. Women's experiences of having had, and recovered from, eclampsia at a tertiary hospital in Tanzania. *Women and Birth* [Internet]. 2017;30(2):114–20. Available from: <http://dx.doi.org/10.1016/j.wombi.2016.09.006>
 23. Harris JM, Franck L, Green B, Michie S. The psychological impact of providing women with risk information for preeclampsia: a qualitative study. *Midwifery* [Internet]. 2014 Dec 1 [cited 2019 Oct 13];30(12):1187–95. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24917032>
 24. Rosyidah H, Koning K De, Ormel H. Quality of maternal health care in Indonesia. *J Heal Technol Assess Midwifery*. 2019 July 30;2(1).
 25. Sarmasti N, Ayoubi SH, Mahmoudi G, Heydarpour S. Comparing Perceived Social Support and Perceived Stress in Healthy Pregnant Women and Pregnant Women with Preeclampsia. *Ethiop J Health Sci*. 2019 May 1;29(3):369–76.
 26. East C, Conway K, Pollock W, Frawley N, Brennecke S. Women's experiences of preeclampsia: Australian action on preeclampsia survey of women and their confidants. *J Pregnancy* [Internet]. 2011 [cited 2019 Oct 13];2011:375653. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/21547089>
 27. Akeju DO, Vidler M, Oladapo OT, Sawchuck D, Qureshi R, Von Dadelszen P, et al. Community perceptions of preeclampsia and eclampsia in Ogun State, Nigeria: A qualitative study. *Reprod Health*. 2016;13(1).
 28. Vaerland IE, Veatne K, Brinchmann BS. Mothers' experiences of having a premature infant due to preeclampsia. *Scand J Caring Sci* [Internet]. 2018 Jun [cited 2019 August 18];32(2):527–34. Available from: <http://doi.wiley.com/10.1111/scs.12476>
 29. Hoedjes M, Berks D, Vogel I, Franx A, Bangma M,

- Darlington A-SE, et al. Postpartum Depression After Mild and Severe Preeclampsia. *J Women's Heal* [Internet]. 2011 Oct [cited 2019 Oct 9];20(10):1535–42. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/21815820>
30. Ekawati E, Setyowati S, Budiati T. "Sehati" health education to improve physical and psychological adaptation of the postpartum women having preeclampsia. *Enferm Clin* [Internet]. 2019 July 6 [cited 2019 October 9];29:199–204. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S1130862119301548>
 31. Seely EW, Rich-Edwards J, Lui J, Nicklas JM, Saxena A, Tsigas E, et al. risk of future cardiovascular disease in women with prior preeclampsia: A focus group study. *BMC Pregnancy Childbirth*. 2013;13.
 32. Wotherspoon, AC, Young, IS, McCance, DR, Holmes, VA. Exploring knowledge of preeclampsia and views on a potential screening test in women with type 1 diabetes. *Midwifery* [Internet]. 2017;50:99–105. Available from: <http://dx.doi.org/10.1016/j.midw.2017.03.019>
 33. Frawley N, East C, Brennecke S. Women ' s experiences of preeclampsia : a prospective survey of pre-eclamptic women at a single tertiary centre. *J Obstet Gynaecol (Lahore)* [Internet]. 2019;0(0):1–5. Available from: <https://doi.org/10.1080/01443615.2019.1615040>
 34. Duffy JMN, Thompson T, Hinton L, Salinas M, McManus RJ, Ziebland S, et al. What outcomes should researchers select, collect and report in preeclampsia research? A qualitative study exploring the views of women with lived experience of preeclampsia. *BJOG An Int J Obstet Gynaecol*. 2019;126(5):637–46.
 35. Semasaka JPS, Krantz G, Nzayirambaho M, Munyanshongore C, Edvardsson K, Mogren I. "Not taken seriously"—A qualitative interview study of postpartum Rwandan women who have experienced pregnancy-related complications. Santos HP, editor. *PLoS One* [Internet]. 2019 Feb 13 [cited 2019 Aug 18];14(2):e0212001. Available from: <http://dx.plos.org/10.1371/journal.pone.0212001>
 36. Rawlins B, Plotkin M, Rakotovo JP, Getachew A, Vaz M, Ricca J, et al. Screening and management of preeclampsia and eclampsia in antenatal and labor and delivery services: findings from cross-sectional observation studies in six sub-Saharan African countries. *BMC Pregnancy Childbirth* [Internet]. 2018 Aug 23 [cited 2019 Oct 9];18(1):346. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/30139342>
 37. Jonge A De, Stuijt R, Eijke I, Westerman MJ. Continuity of care : what matters to women when they are referred from primary to secondary care during labour ? a qualitative interview study in the. 2014;
 38. Rowe RE, Kurinczuk JJ, Locock L, Fitzpatrick R. Women's experience of transfer from midwifery unit to hospital obstetric unit during labour: a qualitative interview study. *BMC Pregnancy Childbirth* [Internet]. 2012 Nov 15 [cited 2020 Mar 16];12:129. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/23153261>
 39. van Stenus CMV, Boere-Boonekamp MM, Kerkhof EFGM, Need A. Client satisfaction and transfers across care levels of women with uncomplicated pregnancies at the onset of labor. *Midwifery* [Internet]. 2017;48(February):11–7. Available from: <http://dx.doi.org/10.1016/j.midw.2017.02.007>
 40. Ouasmani F, Engeltjes B, Haddou Rahou B, Belayachi O, Verhoeven C. Knowledge of hypertensive disorders in pregnancy of Moroccan women in Morocco and in the Netherlands: A qualitative interview study. *BMC Pregnancy Childbirth*. 2018;18(1):1–11.
 41. de Azevedo DV, de Araújo ACPF, Clara Costa LC. An analysis of the meanings of preeclampsia for pregnant and postpartum women and health professionals in Rio Grande do Norte, Brazil. *Midwifery*. 2011;27(6):182–7.
 42. Poon LC, Shennan A, Hyett JA, Kapur A, Hadar E, Divakar H, et al. The International Federation of Gynecology and Obstetrics (FIGO) initiative on preeclampsia: A pragmatic guide for first-trimester screening and prevention. *Int J Gynecol Obstet*. 2019 May 1;145(S1):1–33.