Ashley Hurd-Jackson
SDT Final Capstone Paper

Preeclampsia Education in Rural Communities

Introduction

Preeclampsia and other hypertensive disorders of pregnancy are the leading cause of maternal and perinatal mortality across the world. These disorders occur in 5-8% of all pregnancies and can impact patients without any known risk factors. There are 4,000 cases per year in Iowa and this number continues to rise. Rural counties, which make up approximately one-third of Iowa's population, are at a significantly higher risk of pregnancy-related mortality – with 23.8 deaths per 100,000 live births compared to 14.6 in large metropolitan counties. There has been a lack of sufficient preeclampsia education provided throughout pregnancy and many patients are unaware of what symptoms to look out for or when to see a doctor. In the U.S. and other developed countries, a primary factor preventing women from seeking life-saving medical care is the mere lack of awareness and understanding of the signs and symptoms of preeclampsia. Severe preeclampsia complications and mortality may be preventable with early implementation of patient education on the warning signs throughout pregnancy.

The goal of this project is to improve patient knowledge and education regarding the signs and symptoms of preeclampsia during pregnancy in rural communities. We have collaborated with EndPreeclampsia, a non-profit organization that provides patient support and education, to design a magnet to serve as an educational visual aid that includes common signs and symptoms of preeclampsia. The founder and Director of EndPreeclampsia is an Iowa native and understands the challenges that rural pregnant patients face.

We are seeking to understand if the implementation of this magnet increases patient education, questions, and appointments regarding the signs and symptoms of preeclampsia. To gather information to determine the effect of this educational intervention, we have designed anonymous brief pre- and post- surveys for patients to complete. Each survey will have an informed consent statement to acknowledge. Information obtained from these surveys includes: permanent address zip code, age, race/ethnicity, education level, projected pregnancy due date, number of pregnancies, number of full term deliveries, number of preterm deliveries, number of living children, mode of survey, general questions about preeclampsia and their current understanding, whether they received a magnet or not, did they reference it, did they feel this intervention increase the number of healthcare visits, questions regarding preeclampsia during healthcare visits, increased patient knowledge regarding preeclampsia, and if they were diagnosed with preeclampsia during their pregnancy. The results will be

used to guide QI strategies employed to improve patient preeclampsia education in rural communities and potentially save lives.

Past studies developed a preeclampsia educational tool to assess whether exposure to such tool led to increased understanding of preeclampsia. This was a randomized controlled trial in which 120 women were assigned to (1) a newly developed preeclampsia educational tool, (2) a standard pamphlet addressing preeclampsia that had been created by the American College of Obstetricians and Gynecologists, or (3) no additional information. Preeclampsia knowledge was assessed with the use of a previously validated questionnaire. They found that patients that received the educational tool scored significantly better on the preeclampsia questionnaire than those who received a pamphlet or no additional information. Therefore, patients who were exposed to a graphics-based educational tool demonstrated superior preeclampsia-related knowledge, compared with those patients who were exposed to standard materials or no education (You et al, 2012)

There remains a lack of research regarding preeclampsia education in general and especially in rural communities.

Methods

This project consists of an educational intervention in the form of a magnet that includes the signs and symptoms of preeclampsia. Rural communities were defined per the Carver College of Medicine Rural Iowa Scholars Program definition of a population less than 26,000. Patients who are over the age of 18 years old, currently pregnant, and receiving prenatal care at Floyd Valley Hospital or Cherokee Regional Medical Center will be eligible to participate. Patient zip code will be used to confirm rural address.

Data will be collected in the form of surveys that will be given prior to education intervention with the magnet and again during the postpartum period. Each survey will have an informed consent statement to acknowledge. Information obtained from these surveys includes: permanent address zip code, age, race/ethnicity, education level, projected pregnancy due date, number of pregnancies, number of full-term deliveries, number of preterm deliveries, number of living children, mode of survey, general questions about preeclampsia and their current understanding, whether they received a magnet or not, did they reference it, did they feel this intervention increase the number of healthcare visits, questions regarding preeclampsia during healthcare visits, increased patient knowledge regarding preeclampsia, and if they were diagnosed with preeclampsia during their pregnancy.

Data will be collected via in-person paper and REDCap survey (patient can choose format to use for survey completion)

This data will be collected by Ashley Hurd-Jackson and the additional personnel listed above - Dr. Donna Santillan, Dr. Mark Santillan, and Dr. Elissa Faro.

Timeframe: July 2023 – May 2025
Educational intervention period: maximum of 40 weeks for each patient
OB Appointment/Day 1: Eligible patients will be identified using the clinic schedule. Explain project & risks and benefits to each patient. If they agree to participate, give Survey #1 and have them acknowledge informed consent located at the top of the survey. After completion of the survey, an educational magnet will be provided regardless of pregnancy stage.

Labor & Delivery/Day 2: Any pregnant patient who presents to Floyd Valley Healthcare will be asked by a clerk, medical assistant, nursing assistant, or nurse if they are willing to complete a second brief anonymous survey. If they agree to participate, give Survey #2 and have them acknowledge informed consent located at the top of the survey. This survey will be administered to eligible patients regardless of administration of the educational intervention (magnet).

Patient instructions are listed at the top of each survey. Here, we provide a short background on preeclampsia and the importance of early detection of signs and symptoms. We also provide our purpose for administering these surveys, which is to understand how familiar people are with this disease. Each survey can be completed in-person on paper or online via REDCap Survey. There is an informed consent that patients will need to acknowledge prior to continuing with the survey. This informed consent acknowledges that each participant is free to withdraw at any time, without reason, and without cost. This also acknowledges that each participant may choose to answer any of the questions below or choose to not participate at all. After acknowledging this consent, each participant will complete the pre-educational survey regardless of stage in pregnancy. They can indicate on this survey whether they would like to receive a magnet or not. Those that agree will be given a magnet that they can reference as much or as little as they would like throughout their pregnancy. Time to complete Survey #1 will take approximately 2-3 minutes and can be completed while waiting to see their provider.

Once the patient delivers at Floyd Valley Healthcare, they are eligible to complete the post-educational survey, Survey #2. This survey is identical to the initial survey described above with additional questions regarding receiving a magnet, referencing it, if this magnet prompted questions/discussion or appointments with their OB provider, if they thought the magnet was helpful, and if they were ever diagnosed with preeclampsia throughout their pregnancy. Time to complete Survey #2 will take approximately 3-4 minutes to complete.

By comparing pre-survey data to post-survey data, we hope to perform a statistical analysis to see if there is a statistically significant difference in the number of correct answers regarding the symptoms and risk factors of preeclampsia. However, we will also know if our intervention is successful by reviewing the post-surveys to see if patients found the intervention to be helpful and increase awareness of preeclampsia.

The minimum number of individuals needed in the sample was determined using G*power at a 95% confidence interval (CI), effect size (d)=0.60, α=0.05 and power analysis= 0.80 (80%). The sample size needed is 44 women each in educational and control groups. Various statistics will be computed looking for correlations between data items such as the computation of proportions, confidence intervals, and statistical significance of clinical and demographic variables. For categorical variable, chi square analysis will be performed. For continuous variables, a student's T-test or Mann-Whitney U test will be performed depending on the normality of the data.

Results

Pre-Survey

From July 2023-December 2024, a total of 78 pre-surveys were completed by obstetric patients from both hospital sites. Of those, 7 surveys were not used in statistical analysis due to the inability to confirm rural permanent address, 3 were not used due to urban permanent address, and 1 survey was excluded due to age < 18. For the data that was used in statistical analysis, a total of 52 controls and 17 magnet patients participated in the pre-survey. Ages of the participants ranged from 19-40 years old with the average age of 23.8 in each group. For age, there was no statistically significant difference noted between the control and magnet group (p=0.992). The majority of patients were white/Caucasian (CT: 79.2%, Magnet: 100%) with the second highest group being Hispanic (CT: 14.6%). For race and ethnicity, there was no statistically significant difference noted between the control and magnet group (p=0.413). Highest level of education ranged from 5th grade to Doctoral degree. For the control group, the majority of patients had achieved a bachelor's degree (32.6%) with the second highest group of patients having a High School Diploma (28.3%). For the magnet group, the majority of patients achieved a High School Diploma (37.5%) with the second highest group of patients having a bachelor's degree (25%). For level of education, there was no statistically significant difference noted between the control and magnet group (p=0.479).

The control group rated their current level of understanding of preeclampsia as "Some" (31.4%) and "Good" (31.4%). The magnet group rated their current level of understanding of preeclampsia as "Some" (47.1%). Approximately 5.7% of the control group had indicated that they had never heard of preeclampsia before compared to 0% in the magnet group. For current level of understanding of preeclampsia, there were no

statistically significant difference noted between the control and magnet group (p=0.521).

In terms of identifying signs and symptoms of preeclampsia, the magnet group identified a higher percentage of signs and symptoms, identifying a mean of 4.3 symptoms versus 3.6 symptoms identified in the control group. For classic symptoms, the magnet group identified 3.4 compared to 2.9 of the control group. There were no statistically significant differences in the total number of symptoms identified (p= 0.237) and classic symptoms identified (p= 0.317) between the control and magnet groups. Blurry vision was the only sign/symptom in which the control group identified more than the magnet group (CT: 59.6%, Magnet: 58.8%). There was a statistically significant difference noted for hypertension, in which 75% of controls and 100% of the magnet group identified this as a sign/symptom of preeclampsia (p=0.022). For all other signs and symptoms, there were no statistically significant differences noted (p>0.05).

When asked if the participants had knowledge of what to do if they were experiencing symptoms of preeclampsia, 58% of the magnet group and 61.2% of the control group indicated they knew what next steps to take. There were no statistically significant differences noted between both groups (p= 0.861).

When asked to rate their level of awareness of the potential impacts of preeclampsia, 94.1% of the magnet group rated their understanding as “Very Little” to “Good”. In comparison, 79.2% of the control group rated their understanding as “Very Little” to “Good”. Approximately 4.2% of the control group had indicated that they had never heard of preeclampsia before compared to 0% in the magnet group. There was no statistically significant difference in level of awareness between the control and magnet group (p=0.629)

The magnet group identified a higher percentage of risk factors of preeclampsia compared to controls. The magnet group identified a mean of 3.4 risk factors versus 2.7 identified by controls. There was no statistically significant difference noted between the control and magnet group for risk factors identified (p= 0.257).

The magnet group identified a higher percentage of complications associated with preeclampsia compared to controls. The magnet group identified a mean of 2.8 complications versus 2 for the control group. There was a statistically significant difference noted for the complication of fetal death, in which 61.5% of controls and 94.1% of the magnet group identified this as a potential complication of preeclampsia (p=0.011). For all other complications, there were no statistically significant differences noted (p>0.05).

In terms of the gestational age of onset of preeclampsia, 88.2% of the magnet group and 90.5% of the control group correctly identified that the onset of preeclampsia occurs after 20 weeks of pregnancy. There was not a statistically significant difference noted between groups (p= 0.796).

Approximately 16% of the control group and 11.8% of the magnet group had indicated that their pregnancy was high risk, which was not a statistically significant finding (p= 0.672). About 32.7% of the control group and 29.4% of the magnet group had indicated that they had discussed preeclampsia with their physician, which was also not a statistically significant finding (0.805).

Post-Survey

From July 2023-December 2024, a total of 190 post-surveys were completed by obstetric patients from both hospital sites. Of those, 24 surveys were not used in statistical analysis due to the inability to confirm rural permanent address, 4 were not used due to urban permanent address, 2 surveys were excluded due to age < 18, and 2 surveys were excluded due to inability to confirm magnet status. For the data that was used in statistical analysis, a total of 108 controls and 50 magnet patients participated in the post-survey. Ages of the participants ranged from 18-41 years old with the average age of 27.1 for the control group and 28.1 for the control group. For age, there was no statistically significant difference noted between the control and magnet group (p= 0.270). The majority of patients were white/Caucasian (CT: 75.2%, Magnet: 81.3%) with the second largest group being Hispanic (CT: 14.3%, Magnet: 8.3%). For race and ethnicity, there was no statistically significant difference noted between the control and magnet group (p=0.507). Highest level of education ranged from 3rd grade to Doctoral degree, with the majority of patients having a High School Diploma (CT: 25.7%, Magnet: 38.3%). The second largest group was achieving a bachelor's degree (CT: 24.8%, Magnet: 23.4%) For level of education, there was no statistically significant difference noted between the control and magnet group (p=0.583).

In terms of current level of understanding of preeclampsia, 82% of the magnet group rated their understanding as "Good" to "Excellent" compared to 73% of the control group. Approximately 1.9% of the control group had indicated that they had never heard of preeclampsia before compared to 0% in the magnet group. For current level of understanding of preeclampsia, there were no statistically significant difference noted between the control and magnet group (p=0.215).

When identifying signs and symptoms of preeclampsia, the magnet group identified a higher percentage of signs and symptoms, identifying a mean of 5.54 symptoms versus 4.63 symptoms in the control group. The difference in mean number of symptoms identified was a statistically significant finding (p=0.0129). For classic symptoms, the magnet group identified 4.04 compared to 3.61 of the control group. There were no statistically significant differences in the number of classic symptoms identified between both groups (p= 0.365). However, there were statistically significant differences noted for chest pain (CT: 25%, Magnet: 46% (p= 0.008)), nausea and vomiting (CT: 57.4%, Magnet: 74% (p= 0.045)), and blurry vision (CT: 75%, Magnet: 92% (p=0.012)). For all other signs and symptoms, there were no statistically significant differences noted (p>0.05).

When asked if the participants had knowledge of what to do if they were experiencing symptoms of preeclampsia, 82.6% of the magnet group and 69.1% of the control group

indicated they knew what next steps to take. There were no statistically significant differences noted between both groups (p= 0.087).

In terms of the participant's level of awareness of the potential impacts of preeclampsia, 73.9% of the magnet group rated their understanding as "Good" to "Excellent" compared to 63.6% of the control group. Approximately 1% of the control group and 2.2% of the magnet group indicated that they had never heard of preeclampsia before. There was no statistically significant difference in level of awareness between the control and magnet group (p=0.150)

The magnet group identified a higher percentage of risk factors of preeclampsia compared to controls. The magnet group identified a mean of 3.7 risk factors versus 3.1 identified by controls. There was no statistically significant difference noted between the control and magnet group for mean risk factors identified (p= 0.09). However, there was a statistically significant difference noted for diabetes as a risk factor. Approximately 60% of the magnet group identified diabetes as a risk factor of preeclampsia compared to 38% of controls (p= 0.01).

For complications associated with preeclampsia, the magnet group identified a higher percentage of complications in all categories compared to controls. The magnet group identified a mean of 3.1 complications compared to 2.4 for the control group. There was a statistically significant difference noted for the complication of future heart disease (CT: 25%, Magnet: 44% (p= 0.016)) and future kidney problems (CT: 31.5%, Magnet: 50% (p= 0.025)). For all other complications, there were no statistically significant differences noted (p>0.05).

In terms of the gestational age of onset of preeclampsia, 88.4% of the magnet group and 84.6% of the control group correctly identified that the onset of preeclampsia occurs after 20 weeks of pregnancy. There was not a statistically significant difference noted between groups (p= 0.561).

Regarding discussing preeclampsia with their physician, 77.8% of the magnet group and 66.3% of the control group had indicated that they had discussed this with their provider (p= 0.167). Approximately 6% of patients in both control and magnet groups were diagnosed with preeclampsia at some point during their pregnancy (p= 0.948).

For the magnet group specifically, 20% of patients indicated that they had referenced the magnet throughout their pregnancy. The large majority of patients did not think that the implementation of the magnet prompted questions/discussions with their physician (74%) or increased healthcare visits (88%). Overall, 72% of the those that received a magnet believed that it was helpful in increasing awareness of the signs and symptoms of preeclampsia.

Total delivery numbers were also collected by each hospital. In 2023, there were 127 vaginal deliveries, and 43 c-sections combined at both sites. In 2024, there were 138 vaginal deliveries, and 40 c-sections combined at both sites. Of the 158 patients that

completed a post-survey, a majority indicated having a vaginal delivery (CT: 78.9%, Magnet: 73.3%). In the control group, there was one patient who had an assisted vaginal delivery (1.1%). Approximately 20% of the control group and 26.7% of the magnet group underwent a c-section. There were no statistically significant differences noted in terms of mode of delivery between both groups (p= 0.543)

Analysis

Outcomes & Conclusions

The results support that the implementation of an educational intervention increases patient education regarding the signs and symptoms, risk factors, complications of preeclampsia, discussions with physicians, and what to do if they were to develop symptoms of preeclampsia. The majority of patients (72%) found the magnet to be helpful in raising awareness of preeclampsia.

We also understand that implementing the survey itself could also serve as an educational intervention as well. This is supported by the increase in the control groups identification of signs and symptoms, risk factors, and complications. However, the patients within the magnet group were able to identify each category more often than compared to the pre-survey which supports the magnet being a stronger intervention.

Impact on Community

The overall goal of this project was to increase patient education of preeclampsia in rural communities. After reviewing the data, I feel that I achieved this goal for both the control and magnet group. Compared to the pre-survey, both groups had an increase in the ability to identify signs and symptoms, risk factors, complications of preeclampsia, discussions with physicians, and what to do if they were to develop symptoms of preeclampsia. This was especially true for the magnet group, who identified all of the above at a higher rate compared to the control group. The patients also thought that the magnet was helpful in raising awareness of preeclampsia as well. I also received a personal message regarding the implementation of the educational magnet and how it impacted her sister-in-laws pregnancy:

> “I also wanted to share a quick thank you from my sister-in-law who lives in Omaha and was pregnant with her second child this year. Around 28 weeks, she started struggling with headaches and swelling. Her doctor was monitoring her blood pressure and labs at her appointments. She had reached out to me to ask a couple of questions (because like lots of moms- they don’t want to ‘bother’ their doctor for something they think may be ‘silly’). So I took a picture of your magnet and sent it to her. She LOVED it and told me she looked at it/referenced it all the time. When something she was experiencing was on that list, she felt comfortable reaching out to her OB. She was ultimately diagnosed with pre-eclampsia and delivered her son on 9/17 at about 36 weeks gestation. After a few days in the NICU for baby and 24 hours of Mag for mom, they are both home and doing well. So, thank you for the magnet! My SIL is one mom who genuinely appreciated the resource to look at!”

I think the results and the quote above are evidence that patients find having an educational tool helpful and it can also have a positive impact on their pregnancy.

Challenges, Barriers, and Lessons Learned

Although the project was successful overall, there were a few challenges along the way. There were a much lower number of pre-surveys completed compared to post-surveys. I think a big reason for this is that the nursing staff must remember to hand out the surveys to each new obstetric patient. This took several reminders to each site to encourage staff to hand out surveys to the appropriate patient as well. I learned that timely communication with staff and between staff can really help make a project like this possible.

Another challenge was having incomplete surveys. There were multiple surveys that we were unable to use in statistical analysis due to missing information such as age, permanent address zip code, and magnet status. We were also unable to use the data if the patient resided in an urban location, which led to a total of 43 surveys being unable to use. The surveys did specify that they can fill out as little or as much of the survey as they feel comfortable, but going forward I will ensure that each participant understands that this information is required if they are willing to participate in the project.

Lastly, each survey completed in clinic or on labor and delivery was scanned by the hospital and sent to me by email. There were instances where the surveys were front and back so when they were scanned, the back of the survey was not also scanned by staff. This issue was pointed out, however, not before these surveys had been discarded by the location. Overall, despite these challenges and barriers, I was able to work with nursing staff at each hospital to develop an efficient way to distribute and receive patient surveys to create a successful project.

Plan for Sustainability & Future Recommendations

After I graduate, we hope to continue implementing an educational resource for rural patients in hospitals across the state. We hope to continue to collaborate with EndPreeclampsia to help us engage with providers and use the results of this work to encourage providers to give patients this educational magnet. We also hope to use this data as evidence to show local providers that early education regarding preeclampsia allows patients to be well informed and cause them to recognize signs and symptoms earlier on in pregnancy without increasing anxiety or number of appointments. Based on our research, we hope to approach other hospitals within the state to also implement this magnet, so all rural patients have access to this information. I also hope to do a similar project during residency at other locations in the state of Iowa to continue to raise awareness and improve patient education.

Personal Reflection

This project has helped me become more aware of how I work with other people at multiple locations. Through this project, I have gotten the opportunity to work with several physician staff members and nurses at two rural hospitals in Northwest Iowa. I feel that my communication skills have overall improved as well as my planning skills to coordinate both magnet and survey distribution with the help of nursing staff.

I do believe that this project has influenced by beliefs as a physician. I think it has really opened my eyes to the fact that some patients have never heard of specific complications that can happen in pregnancy, which can have severe impact on both the health of the patient and the baby they are carrying. I think this is especially true in rural areas who do not have medical backgrounds.

As a future rural OB/GYN physician, I will ensure that my patients are aware of the complications that can occur in pregnancy and what signs/symptoms they should be looking out for. I will ensure that my patients feel comfortable asking me questions and that they are not afraid to reach out if they are experiencing symptoms related to preeclampsia. I truly believe that early education and intervention can save lives.

My project has opened my eyes to the diversity of rural areas and also the wide range of level of education. Many patients that were ethnically diverse had lower levels of education compared to their white counterparts. I believe this may be due to multiple factors, including unequal access to quality education, socioeconomic disparities, and historical discrimination. As a provider, I hope to be more mindful to this in hopes to foster increased health literacy for all of my patients. I understand that not everyone comes from the same educational background and may need more time to understand certain aspects of their health. I hope to take the time with my patients, so they feel included in decisions regarding their health and understand the future implications as well.

References

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Appendix

1. CRMC & FVH Pre-Education Survey
2. CRMC & FVH Post-Education Survey
3. Educational Magnet

Pre-Education Survey

Preeclampsia is a life-threatening condition that occurs only during pregnancy and the postpartum period. Early recognition of the signs and symptoms of preeclampsia can potentially be lifesaving for both mother and unborn baby. We want to understand how familiar people are with this disease.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I am not being paid to participate in this study. I also understand that I may choose not to answer any of the questions below or not to participate at all. Participating in this study will not affect my medical care.

☐ I acknowledge that I have read and understand the above statement.

Current Date:

Permanent Address Zip Code:

Age:

Race/Ethnicity:

Education Level:

Projected Pregnancy Due Date:

Total Number of Pregnancies:

Number of Full-term Deliveries:

Number of Preterm Deliveries:

Number of Living Children:

1. **What do you feel is your current level of understanding of preeclampsia?**
   ___ Excellent
   ___ Very good
   ___ Good
   ___ Some understanding
   ___ Very little understanding
   ___ I have never heard of preeclampsia

2. **What are some of the signs and symptoms of preeclampsia? (Check all that may apply)**
   ___ High blood pressure in pregnancy
   ___ Persistent headache
   ___ Swelling
   ___ Blurry vision
   ___ Chest pain
   ___ Abdominal pain
   ___ Nausea & vomiting
   ___ Back pain

3. **What are some of the risk factors for preeclampsia? (Check all that may apply)**
   ___ Family history of preeclampsia
   ___ Having preeclampsia in a prior pregnancy
   ___ Obesity
   ___ Diabetes
   ___ Unhealthy lifestyle
   ___ Multiple births
   ___ Depression

4. **How aware are you of the potential health impacts of preeclampsia on you and/or your baby?**
   ___ Excellent
   ___ Very good
   ___ Good
   ___ Some understanding
   ___ Very little understanding
   ___ I have never heard of preeclampsia

5. **What are some of the complications of preeclampsia? (Check all that may apply)**
   ___ Maternal death
   ___ Fetal death
   ___ Future heart disease
   ___ Kidney problems
   ___ Future high blood pressure

6. **When is one most likely to experience preeclampsia?**
   ___ Before 20 weeks of pregnancy
   ___ After 20 weeks of pregnancy

7. **Have you discussed preeclampsia with your physician at any point throughout your current pregnancy?**
   ___ Yes
   ___ No

8. **Do you know what to do if you develop symptoms of preeclampsia?**
   ___ Yes
   ___ No

9. **Have you ever been told that you have a diagnosis that makes your pregnancy high risk?**
   ___ Yes
   ___ No
   If yes, please explain more using the space below:

10. **Would you like to receive a magnet that serves as a reference for the signs and symptoms of preeclampsia?**
    ___ Yes
    ___ No

Post-Education Survey

Preeclampsia is a life-threatening condition that occurs only during pregnancy and the postpartum period. Early recognition of the signs and symptoms of preeclampsia can potentially be lifesaving for both mother and unborn baby. We want to understand how familiar people are with this disease.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I am not being paid to participate in this study. I also understand that I may choose not to answer any of the questions below or not to participate at all. Participating in this study will not affect my medical care.

☐ I acknowledge that I have read and understand the above statement.

Current Date:

Permanent Address Zip Code:

Age:

Race/Ethnicity:

Education Level:

Delivery Date:

Total Number of Pregnancies:

Number of Babies Delivered from this Pregnancy:

Method of Delivery (vaginal, assisted vaginal (forceps or vacuum), c-section, VBAC):

11. What do you feel is your current level of understanding of preeclampsia?

___ Excellent
___ Very good
___ Good
___ Some understanding
___ Very little understanding
___ I have never heard of preeclampsia before

12. What are some of the signs and symptoms of preeclampsia? (Check all that may apply)

___ High blood pressure in pregnancy
___ Persistent headache
___ Swelling
___ Blurry vision
___ Chest pain
___ Abdominal pain
___ Nausea & vomiting
___ Back pain

13. What are some of the risk factors for preeclampsia? (Check all that may apply)

___ Family history of preeclampsia
___ Having preeclampsia in a prior pregnancy
___ Obesity
___ Diabetes
___ Unhealthy lifestyle
___ Multiple births
___ Depression

14. How aware are you of the potential impact of preeclampsia on you and/or your baby?

___ Excellent
___ Very good
___ Good
___ Some understanding
___ Very little understanding
___ I have never heard of preeclampsia before

15. What are some of the complications of preeclampsia? (Check all that may apply)

___ Maternal death
___ Fetal death
___ Future heart disease
___ Kidney problems
___ Future high blood pressure

16. When is one most likely to experience preeclampsia?

___ Before 20 weeks of pregnancy
___ After 20 weeks of pregnancy

17. Have you discussed preeclampsia with your physician at any point throughout your current pregnancy?

___ Yes
___ No

18. Do you know what to do if you develop symptoms of preeclampsia?

___ Yes
___ No

19. Did you receive an educational magnet regarding preeclampsia during your pregnancy?

___ Yes
___ No

20. Did you reference this magnet at any point during your pregnancy?

___ Yes
___ No
___ Not Applicable

If yes, please explain more using the space below:

21. In your opinion, did this magnet prompt questions/discussion about preeclampsia with your physician?

___ Yes
___ No
___ Not Applicable
If yes, please explain more using the space below:

22. In your opinion, did this magnet prompt increased healthcare visits with your physician?

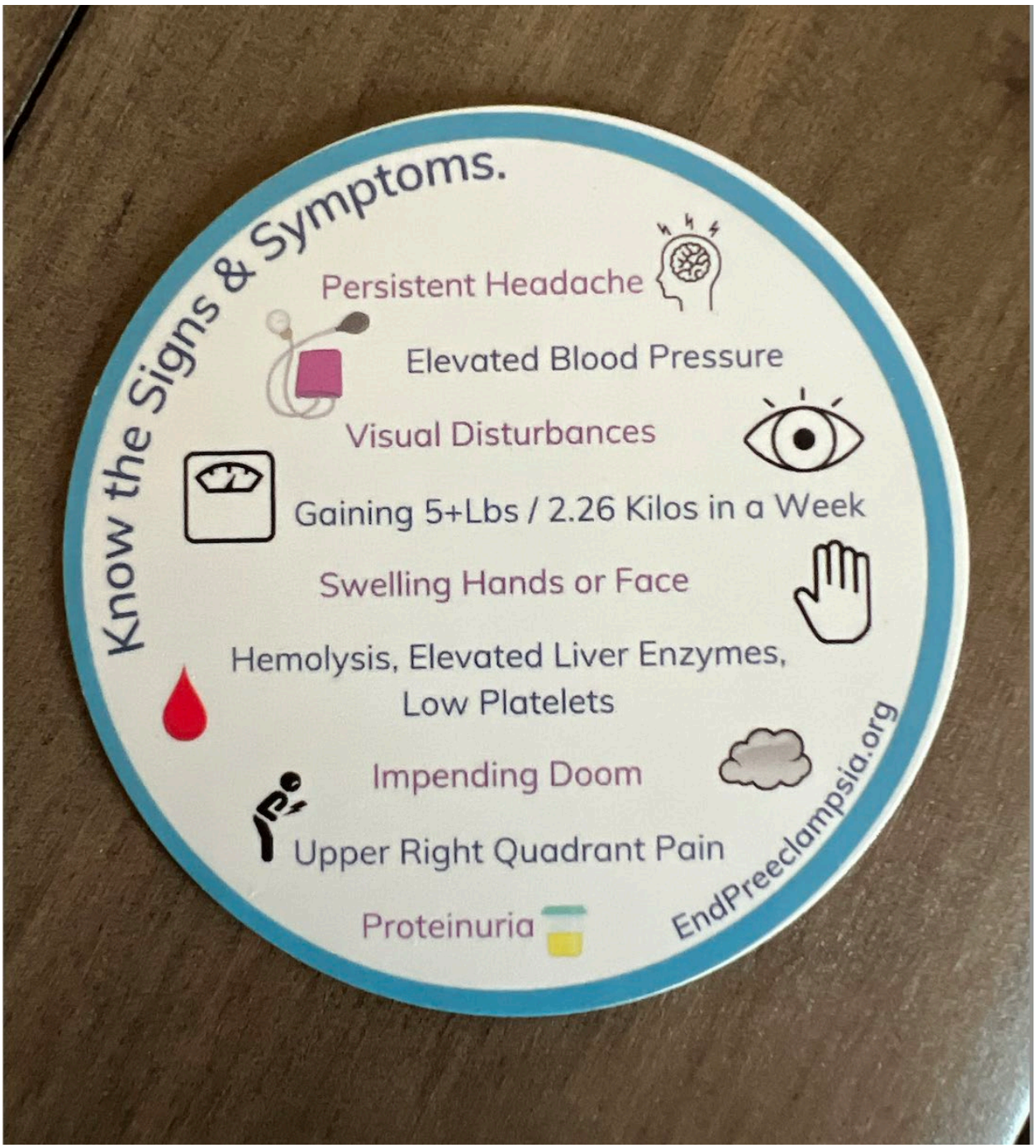
___ Yes
___ No
___ Not Applicable
If yes, please explain more using the space below:

23. In your opinion, do you feel that this magnet was helpful in increasing awareness of the signs and symptoms of preeclampsia?

___ Yes
___ No
___ Not Applicable
If yes, please explain more using the space below:

24. Were you diagnosed with preeclampsia at any point during your pregnancy?

___ Yes
___ No


Know the Signs & Symptoms.
Persistent Headache
Elevated Blood Pressure
Visual Disturbances
Gaining 5+Lbs / 2.26 Kilos in a Week
Swelling Hands or Face
Hemolysis, Elevated Liver Enzymes, Low Platelets
Impending Doom
Upper Right Quadrant Pain
Proteinuria
EndPreeclampsia.org