The impact of an educational pamphlet on knowledge and anxiety in women with preeclampsia

Nadine Sauvé MD*, Raymond O Powrie MD†, Lucia Larson MD†, Maureen G Phipps MD MPH‡, Sherry Weitzen PhD‡, Donna Fitzpatrick RN§ and Karen Rosene-Montella MD†

*Division of Internal Medicine, Department of Medicine, Centre Hospitalier Universitaire de Sherbrooke, Affiliated to Université de Sherbrooke, Québec, Canada; †Division of Obstetric and Consultative Medicine, Department of Medicine; ‡Department of Obstetrics and Gynecology, Division of Research; §Assistant Nurse Manager, Antepartum Ward, Women and Infants Hospital of Rhode Island, Affiliated to Brown University, Providence, RI, USA

Summary

Objective: This study was undertaken to evaluate whether or not an educational pamphlet could improve knowledge without increasing anxiety in women with preeclampsia.

Methods: One hundred women recruited from an inpatient setting with suspected or proven preeclampsia were asked to answer a questionnaire assessing demographics, knowledge (primary outcome), anxiety and satisfaction (secondary outcomes) after being randomized to an intervention group (who received a pamphlet) or a control group (who did not receive a pamphlet). The pamphlet and questionnaire, both designed by a multidisciplinary team, were read and answered at the same time.

Results: Baseline and demographic characteristics were similar between the two groups. Knowledge about the symptoms of preeclampsia was excellent in both groups (61% to 100% correct answers). Women in both groups were well aware that preeclampsia in the past ($P = 0.22$) and a family history of preeclampsia ($P = 0.57$) were risk factors. There was a significant difference in knowledge about the risk of some fetal complications, including death (90% versus 39%, $P < 0.01$) and all maternal complications ($P < 0.05$) favouring the intervention group. Despite increased knowledge about preeclampsia and its risks, anxiety was not greater in the intervention group. Overall, there was a trend towards less knowledge in vulnerable subgroups (non-white, low income and schooling levels), but the improvement of knowledge with the pamphlet was equivalent. Baseline anxiety was higher in the vulnerable groups, but was generally not increased by the pamphlet.

Conclusion: An educational pamphlet for women with suspected preeclampsia was able to increase knowledge without increasing anxiety.

Keywords: patient education, pregnancy, preeclampsia

INTRODUCTION

Gestational hypertension affects approximately 5% of all pregnancies and preeclampsia is responsible for 15.9% of maternal deaths in the USA.¹ Fetal mortality from preeclampsia is decreasing, but was still 1.4% among nulliparas and 6.4% among recurrent preeclamptics in the last decade.² The complex and somewhat ill-defined nature of preeclampsia makes it remarkably difficult to explain clearly to patients. It is also known that even if the explanation is adequate, patients often forget most of what they are told during a consultation.³ We hypothesized that this could cause delays in presentation when symptoms occur, contributing to morbidity and even mortality from preeclampsia. Providing a standard and permanent means of improving communication with our patients about preeclampsia was, therefore, identified as a

major objective in a multidisciplinary quality initiative to improve management of 'Hypertensive diseases in pregnancy' at our centre. However, some clinicians expressed concerns that more information might only mean higher levels of anxiety for the patient. The present study was conducted to specifically address this concern over potentially causing anxiety in patients by providing education.

Written information that accompanies oral teaching has been previously shown to enhance patient understanding of complicated topics.⁴ Patient education through brochures, videocassettes and special educational programmes has been proven, for conditions including asthma,⁵ to improve clinical outcome as well as compliance. In pregnant women, there are data from randomized controlled trials and cohort studies on topics, such as smoking cessation,⁶ Down's syndrome screening⁷ and HIV screening/counselling⁸ indicating that knowledge, anxiety level, compliance and satisfaction can all benefit from educational interventions. There is a paucity of recent literature on educational modalities for preeclampsia or hypertension in pregnancy. Some professional

Correspondence to: Dr Nadine Sauvé
Email: nadine.sauve@USherbrooke.ca

or public organizations such as the American College of Obstetricians and Gynaecologists or the Preeclampsia Foundation do provide educational resources in the form of pamphlets or websites,⁹⁻¹³ but formal evaluation of how these resources effect patients' knowledge, anxiety and satisfaction level has not been published. The purpose of this study was to evaluate the impact of an educational pamphlet about preeclampsia upon the knowledge, anxiety and satisfaction level of pregnant women with suspected or proven preeclampsia.

MATERIAL AND METHODS

Material

A multidisciplinary team, including obstetricians, Maternal-Fetal Medicine specialists, internists and nurses specialized in pregnancy, and neonatologists developed, reviewed and critiqued a two-page pamphlet about preeclampsia for content, accuracy and clarity. The pamphlet included information about pathophysiology/aetiology, symptoms, risk factors, possible fetal and maternal complications, treatment, prevention and prognosis. Trained personnel of the Marketing and Communications Service of Women and Infants' Hospital ensured the materials in the pamphlet were written to the sixth grade reading level, the standard level for health education material.⁴ The pamphlet material was translated into Spanish by a professional translator.

A four-page self-administered questionnaire was also designed and revised by the same multidisciplinary team. The questionnaire was adapted to the sixth grade reading level and made available in Spanish. Content areas included demographic information, past medical and obstetric history, knowledge, anxiety and satisfaction. Responses were categorized using standard 'Yes/No/Do not know', multiple choices or a Likert's scale (ranking from 1 to 6). We created our own short version of an anxiety scale because we did not retrieve any existing anxiety scale that specifically assessed the mother's emotions about preeclampsia, and that those that exist about pregnancy were far too long and general for our purpose. To evaluate the content validity and assess the patient acceptability of our questionnaire prior to the beginning of the study, five questionnaires were pilot tested by patients. Only two minor changes were made to the questionnaire based on the feedback from the pilot testing. The integral version of the pamphlet and the questionnaire are available on request. A selection of questions about knowledge, anxiety and satisfaction are reproduced in Appendix 1 to facilitate the interpretation of the results.

Methods

This randomized controlled trial was conducted at the Women & Infants' Hospital of Rhode Island. A convenience sample of 100 pregnant women hospitalized for suspected or proven preeclampsia was recruited. The research personnel (three nurses and the principal investigator) screened the log-book containing the working diagnosis on antepartum wards to identify patients. This was done every working day and some weekends; therefore, almost all eligible patients were approached as most patients stayed at least 48 hours waiting for the result of the 24-hour proteinuria. Women unable to read or write in English or Spanish were excluded because the material was self-administered. Consent was

first obtained from obstetricians to allow the research team to enroll their patients. Eligible women were then approached and were told that the study was evaluating a new method of giving information to help patients understand preeclampsia. It was specified that we were not evaluating the patients themselves, but rather their sources of information. Once informed consent was obtained, the participant received a sealed envelope. The envelopes were consecutively numbered and distributed in order of recruitment. The envelope contents had been randomly predetermined via a random number table before the beginning of the study by the principal investigator. The study was single-blinded; the intervention group received the pamphlet with the questionnaire and the control group received the questionnaire alone. Participants answered the questionnaire on their own, usually within 24 hours. As a courtesy for the subjects in the control group, the pamphlet was given to them after questionnaire completion. To avoid social desirability bias, patients were told in advance their responses would be anonymous and they placed their completed questionnaire in sealed envelopes. There was no interaction between the study personnel and the patient about the content of the pamphlet and the questionnaire. They were referred to their health-care provider, if they had any questions. The study protocol was approved by the local Institutional Review Board (2 December 2002).

The primary outcome was the improvement in immediate knowledge about preeclampsia with the pamphlet. Secondary outcomes were modifications in level of anxiety about different aspects (maternal and fetal) and satisfaction about various sources of information, including the pamphlet. To assess anxiety and satisfaction, a Likert's scale ranking from one to six was used. Based on our clinical experience with pregnant women and assuming a fairly high baseline level of anxiety, the research team determined that a change of one or more on the scale would be considered clinically significant. We also planned to perform a subgroup analysis to evaluate the effect of the pamphlet on vulnerable groups (non-white, low income and schooling levels).

Statistical analysis

This is a randomized controlled trial. The sample size was calculated to detect at least 30% increase in knowledge, the primary outcome, with a power of 80% and an alpha of 0.05. The calculated sample size was 74 although it was increased to 100 to account for missing answers that could occur with self-administered questionnaires. The analyses were performed using STATA 8.0 (College Station, TX, USA). The chi-square and Fisher exact tests were used where appropriate. For the subgroup analyses, relative risks and 95% confidence intervals were computed comparing the benefits of the pamphlet with respect to knowledge of risk factors, symptoms, fetal and maternal complications. Subgroups examined included: white versus non-white; education <12th grade versus education >12th grade and; Income <US\$25,000 versus income >US\$25,000.

RESULTS

Participants' characteristics

The recruitment period extended from 7 February 2003 to 8 July 2003 during which 118 patients were approached. Seven of them were excluded, six because they were unable to read or

write English or Spanish, and one because she was 16 years and her parents were not available for consent. Only nine patients declined; five because of imminent delivery (active labour or caesarean section planned on the short term), three were not interested, and one stated she was too frightened by her medical situation. A total of 102 participants signed the consent but two patients withdrew before opening their envelope (one because she required an urgent caesarean section and the other because of family commitments). One hundred women completed the study, 51 in the intervention group and 49 in the control group (Figure 1).

Comparison of the population characteristics from the intervention and control groups indicates that there were no statistically significant differences between the groups (Table 1). Less than 20% of questionnaires contained some missing answers.

Knowledge

Overall, 19% of participants had never heard about preeclampsia or toxemia before their enrolment. The results of knowledge about risk factors, symptoms, fetal complications, maternal complications and treatment are presented in Table 2. The results reported indicate the number of women who answered 'yes' for each question asked (Appendix 1). Women in both groups were well aware that preeclampsia in the past or a family history of preeclampsia were risk factors. Of note, only 41% of women in the control group were aware that first pregnancy is a risk factor. It is interesting to note how well-informed participants were in both groups about the symptoms of preeclampsia. Even where the difference is statistically significant, for visual changes (100% versus 92%, $P = 0.05$) and epigastric pain (90% versus 71%, $P = 0.02$), the

Table 1 Baseline and demographic characteristics in the study population

Characteristics	Intervention group (n = 51)	Control group (n = 49)	P value
Age (mean, years)	29.71	30.57	0.50
Race/ethnicity % (n)			0.31
White	72 (37)	63 (30)	
Hispanic	18 (9)	23 (11)	
African-American	4 (2)	12 (6)	
Other	6 (3)	2 (1)	
Exclusive Spanish speaking % (n)	10 (5)	10 (5)	0.95
Civil status % (n)			
Married	69 (35)	67 (32)	0.84
Schooling level % (n)			
>12th grade	51 (26)	47 (23)	0.69
Household income % (n)			
<US\$ 25,000	24 (12)	20 (10)	0.71
Gestational age (mean, weeks)	34.79	33.74	0.22
First pregnancy % (n)	41 (21)	45 (22)	0.71
Prenatal care setting* % (n)			0.69
Private obstetrician's office	49 (25)	47 (23)	
High-risk obstetrician's office	20 (10)	27 (13)	
Clinic (governmental)	27 (14)	22 (11)	
Missing	4 (2)	4 (2)	
Health-care provider % (n)			0.80
Physician	80 (41)	84 (41)	
Midwife	16 (8)	14 (7)	
Nurse practitioner	2 (1)	0 (0)	
Other/missing	2 (1)	2 (1)	
Previous disease % (n)			
Hypertension	20 (10)	31 (15)	0.20
Renal	4 (2)	8 (4)	0.43
Diabetes	8 (4)	2 (2)	0.68
Thrombosis	2 (2)	0 (0)	0.49
Previous preeclampsia % (n)	16 (8)	16 (8)	0.93
Previous hospitalization for preeclampsia % (n)	16 (8)	20 (10)	0.54

*Some patients received their prenatal care in more than one setting

Figure 1 Recruitment flow chart

control group results were already very high. However, even though the pamphlet insists many times on the possibility of preeclampsia being asymptomatic, only 47% registered this information. An important difference was also noted in knowledge of most possible fetal, and particularly maternal, complications favouring women who received the pamphlet. Finally, the fact that delivery is the treatment of preeclampsia was a known fact for the majority of women in both groups (90% versus 78%, $P = 0.09$), without significant difference between groups.

Anxiety

Despite the fact that the pamphlet increased women awareness of potential fetal and maternal complications, there was no increase in the anxiety level in the intervention group, as shown in Table 3. In fact, women in the control group were more fearful of the recurrence of preeclampsia in a future pregnancy (4.98 versus 3.49). Of note, the participants were generally more worried about their baby's situation compared with their own. When asked if they would worry less if they had more information, 65% of women in the control group compared with 47% in the intervention group said yes ($P = 0.099$).

Table 2 Comparative knowledge about preeclampsia in the complete cohort

	Intervention group (n = 51)	Control group (n = 49)	P value
Risk factors % (n)			
First pregnancy	82% (42)	41% (20)	<0.01
Previous preeclampsia	76% (39)	65% (32)	0.22
Family history of preeclampsia	69% (35)	63% (31)	0.57
Hypertension	80% (41)	61% (30)	0.04
Prior renal disease	63% (32)	37% (18)	0.01
Diabetes	65% (33)	37% (18)	0.01
Multiple gestation	80% (41)	37% (18)	<0.01
Symptoms % (n)			
Headache	98% (50)	92% (45)	0.20
Visual changes	100% (51)	92% (45)	0.05
Epigastric pain	90% (46)	71% (35)	0.02
Seizures	75% (38)	61% (30)	0.16
oedema	96% (49)	86% (42)	0.09
Hypertension	96% (49)	98% (48)	1.00
Proteinuria	96% (49)	88% (43)	0.16
Asymptomatic	47% (24)	12% (6)	<0.01
Fetal complications % (n)			
Any fetal complication	94% (48)	86% (42)	0.19
Prematurity	88% (45)	76% (37)	0.10
Intrauterine growth restriction	82% (42)	61% (30)	0.02
Death	90% (46)	39% (19)	<0.01
Abruption	84% (43)	43% (21)	<0.01
Maternal complications % (n)			
Stroke	78% (40)	41% (20)	<0.01
Seizures	92% (47)	63% (31)	<0.01
Pulmonary oedema	78% (40)	10% (5)	<0.01
Heart failure	71% (36)	16% (8)	<0.01
Renal failure	80% (41)	39% (19)	<0.01
Intracranial haemorrhage	71% (36)	20% (10)	<0.01
Death	84% (43)	41% (20)	<0.01
No complications	45% (23)	35% (17)	0.29
Treatment % (n)			
Antihypertensive	84% (43)	78% (38)	0.39
Bed rest	96% (49)	86% (42)	0.07
Delivery	90% (46)	78% (38)	0.09
Magnesium sulfate	75% (38)	31% (15)	<0.01

Satisfaction

Participants were in general satisfied with the different sources of information on preeclampsia (various health-care providers, friends and family, general and specialized media) they had been exposed to (ratings from 3.83 to 5.00 out of 6). However, overall, our pamphlet had the highest rating (5.33/6).

Subgroup analysis

Although the study was designed and powered to evaluate the effect of the pamphlet on 100 women, we pursued the following subgroup analysis. We specifically looked at three subgroups: race and ethnic groups (non-white versus white), schooling level (<12th grade versus >12th grade) and household income (<US\$25,000 versus >US\$25,000). We were interested in baseline knowledge and anxiety differences represented by the results in each control group. We also wanted to know if the pamphlet had the same effect on the vulnerable groups compared with the others.

Table 3 Comparative level of anxiety for the complete cohort

Anxiety field	Intervention group (mean)	Control group (mean)	P value
Mother's health	3.90	3.73	0.54
Mother's life	3.57	3.40	0.63
Effect of medication on baby	4.00	3.71	0.37
Mother's recovery	3.47	3.04	0.21
Recurrence in future	3.49*	4.98*	0.33
Baby's physical health	4.70	4.87	0.52
Baby's physical disability	4.29	4.55	0.44
Baby's mental handicap	4.04	4.55	0.16
Baby's prolonged hospitalization	4.35	4.67	0.32

Scale: 1, not worried at all; 2, hardly worried at all; 3, slightly worried; 4, fairly worried; 5, very worried; 6, extremely worried

*Clinically significant

When comparing the control groups, there were only a few significant differences in knowledge. White women had better knowledge than non-white women for three items: prior renal disease as a risk factor (47% versus 21%, $P = 0.02$), oedema as a symptom (97% versus 68%, $P = 0.002$) and seizures as a maternal complication (77% versus 42%, $P = 0.04$). As well, women with higher household income performed better when asked about the possibility of preeclampsia of being asymptomatic (13% versus 10%, $P = 0.05$). There was, however, a trend in favour of more knowledge in most areas in white women, and those with higher schooling and income level. The increment of knowledge induced by the pamphlet was relatively consistent in all three subgroups.

For those who did not receive the pamphlet, and thus indicative of the patient's baseline anxiety prior to our educational intervention, the non-white women were more anxious about their life (4.2 versus 3.0), recovery (3.9 versus 2.5) and recurrence in future pregnancy (4.2 versus 3.0) compared with white women. This excess anxiety was also seen in the non-white in the intervention group (life 4.4 versus 3.3; recovery 4.6 versus 3.1; recurrence 4.8 versus 3.0), but was not increased by the pamphlet. In fact, the pamphlet decreased their anxiety about a possible mental handicap for the baby (4.1 versus 5.1). There was no difference in anxiety level before or after the pamphlet according to the level of education. In the group without the pamphlet, women with lower household income were more anxious about the possibility of dying (4.6 versus 3.1). In the intervention group, they were more anxious about their health (4.8 versus 3.6), life (4.5 versus 3.3) and recurrence in future pregnancy (4.4 versus 3.2), but the pamphlet did not increase this anxiety. However, receiving the pamphlet was associated with a higher level of anxiety about their recovery (3.6 versus 4.9).

DISCUSSION

With this trial, we demonstrated that a collaborative effort involving representatives of the key providers involved in the care of hypertensive pregnant patients and their babies resulted in a patient resource pamphlet that conveyed difficult information, including the lethal potential of the disease on the mother and the fetus, without increasing their anxiety. A new pamphlet was developed instead of using one available from

other organizations or institutions because we were unable to find a single resource that our entire team found acceptable. They were either too general, too detailed or too emotional.⁹⁻¹³ In particular, most existing resources were felt to be well beyond the sixth grade reading level.¹⁴⁻¹⁵ A very high level of satisfaction about the pamphlet was reported by women in the intervention group. Enthusiastic comments about our pamphlet from participants and the excellent recruitment rate were a reflection of these patients' desire for more information.

The primary outcome, improvement of knowledge, was easily achieved in several areas in the intervention group at similar levels that had been demonstrated in another study looking at an educational intervention.⁸ We admit that our findings may not be applicable in all settings and locations. The high level of knowledge about symptoms and the treatment of preeclampsia in both groups may be related to the fact that we included only inpatients hospitalized for suspected or proven preeclampsia. It is highly likely that these patients were repetitively asked about the symptoms of preeclampsia since their admission and possibly received treatment or at least explanation about treatment. We suspect that a lower rate would be found in normal pregnancy or outpatient settings that may make the impact of this pamphlet on patient's knowledge even more pronounced in those settings. Also, our population was mainly white with a fairly high level of schooling and household income. The majority were taken care of by obstetricians, mainly from private offices. However, the subgroup analysis revealed that the pamphlet was also beneficial in non-white population, low-schooling level and low-income populations where the anxiety levels were particularly high. We hope to study these questions further in the future.

An obvious question to be asked is: is more knowledge better? Both the Institute of Medicine Report on Medical Errors¹⁶ and The Agency for Health-care Research and Quality¹⁷ identify the importance of the patients' understanding of their condition and care plan as an important part of minimizing potential errors in hospital care. This is particularly true if this objective can be achieved without increasing patient anxiety at a difficult point in their pregnancy. Again, it seems essential to verify with further studies that anxiety level would not be increased if the pamphlet was used on low-risk pregnant outpatients.

A few methodological issues need to be discussed. First, the use of a self-administered questionnaire may have introduced a social desirability bias although the anonymous nature of our methods should have reduced this effect to a minimum. This would, however, not affect the differences noted as the control group would be affected by the same bias. Second, the overall completeness of questionnaires was good, with <20% of them containing some missing data. Third, an instrumentation bias was present because subjects in the intervention group were receiving the pamphlet and answering the questionnaire at the same time. The study was not designed to determine whether the subjects retained the information for any more than the short period of time studied. This should be the goal of future research, but does not minimize the fact that anxiety was not increased by the recently acquired information.

CONCLUSION

In conclusion, future research could help determine if this educational modality will have a role as part of the needed

interventions focused on reducing the morbidity and mortality associated with preeclampsia. Although our study was not designed to determine this, we think that improved knowledge of the potential serious complications of preeclampsia could encourage pregnant women to report symptoms more frequently and rapidly to their health-care provider. We also think that knowing that preeclampsia could be asymptomatic may enhance compliance with obstetrical appointments and the plan of care.

DECLARATIONS

Competing interests

None of the authors have any conflict of interest to declare.

Funding

Funding for the pamphlet's translation came from the Women & Infants' Department of Nursing and Patient Education.

Contributorship

The following list details the contribution of each author:

N.S.: Principal investigator for the study. She designed the study, developed the pamphlet and questionnaire, wrote the IRB approval application, recruited participants, entered and analysed the data and wrote the final manuscript.

R.P., L.L. and K.R.-M: assisted in the study of N.S. in all steps from conception to redaction of the manuscript.

M.P.: Participated in all steps with advice mainly concerning methodology and statistics.

S.W.: Acted as our epidemiologist and statistician for both research design and subsequent data analysis. She has had a critical role in finalizing the manuscript.

D.P.: Contributed to the elaboration of the design of the study, questionnaire and pamphlet, as well as, recruitment of participants and coordination of our recruitment team.

ACKNOWLEDGMENTS

We are indebted to Donna Fitzpatrick, Ann Cooper and Nancy Hulme for recruitment and data entry, Maureen Phipps MD and Rebecca Shackelton for statistical and epidemiologic support, Faye Lozowski for database support and Jami Star MD for pamphlet conception. Preliminary results were presented to the North American Society for Obstetric Medicine in Ottawa in May 2003. Final results were presented with a poster at the 15th World Congress of the International Society for Study of Hypertension in pregnancy in Lisbon July 2006.

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(Accepted 22 April 2008)

APPENDIX 1

Sections of the study questionnaire

FACTS

12. Which of the following can make a pregnant woman more likely to get preeclampsia?

a) First pregnancy	Y	N	DK
b) Preeclampsia in previous pregnancy	Y	N	DK
c) Family history of high blood pressure during pregnancy	Y	N	DK
d) High blood pressure before pregnancy	Y	N	DK
e) Kidney disease before pregnancy	Y	N	DK
f) Diabetes	Y	N	DK
g) Twins or triplets	Y	N	DK
h) Other: »			

13. When a woman has preeclampsia, she may have:

a) Headache	Y	N	DK
b) Vision changes (flashes or dark spots)	Y	N	DK
c) Stomach pain (middle or right side)	Y	N	DK
d) Seizures	Y	N	DK
e) Swelling/Rapid weight gain	Y	N	DK
f) High blood pressure	Y	N	DK
g) Protein in urine	Y	N	DK
h) No symptoms	Y	N	DK
i) Other: »			

14. Can preeclampsia affect or hurt the baby? Y N DK

IF NO OR DON'T KNOW, GO TO QUESTION 16.

15. If YES, What are the possible complications for the baby?

a) Prematurity (born too early)	Y	N	DK
b) Small baby (underweight)	Y	N	DK
c) Death	Y	N	DK
d) Early separation of placenta ("abruption")	Y	N	DK
e) Other: »			

16. What are the mother's possible complications of preeclampsia?

a) Stroke	Y	N	DK
b) Seizures	Y	N	DK
c) Water on the lungs	Y	N	DK
d) Heart failure	Y	N	DK
e) Bleeding in liver	Y	N	DK
f) Kidney failure	Y	N	DK
g) Bleeding in brain	Y	N	DK
h) Death	Y	N	DK
i) It is possible that the mother has no complications	Y	N	DK
j) Other: »			

17. What treatment(s) do some women need for preeclampsia?

a) Medicine controlling blood pressure	Y	N	DK
b) Bed rest	Y	N	DK
c) Delivery	Y	N	DK
d) Magnesium sulfate	Y	N	DK
e) Other: »			

OTHER ISSUES

28. Many pregnant women find that they worry from time to time about the baby and whether everything will be all right. Some people worry more than others. Thinking about yourself, this pregnancy and being in the hospital this time, we would like you to tell us how worried you feel right now about the following:

	1=not worried at all	2=hardly worried at all	3=slightly worried	4=fairly worried	5=very worried	6=extremely worried
a) Whether your health can be affected by your present health condition	1	2	3	4	5	6
b) Whether your life is in danger by your present health condition	1	2	3	4	5	6
c) Whether medicines given to you can badly affect the baby	1	2	3	4	5	6
d) Whether you will recover from your present health condition	1	2	3	4	5	6
e) Whether this health problem can come again in the future	1	2	3	4	5	6
f) Whether the baby will be strong and healthy	1	2	3	4	5	6
g) Whether the baby will have a physical disability of any kind because of your present health condition	1	2	3	4	5	6
h) Whether the baby will have a mental handicap of any kind because of your present health condition	1	2	3	4	5	6
i) Whether the baby will need treatment in hospital before he/she can go home	1	2	3	4	5	6

29. Do you think you would worry less if you had more information about pre-eclampsia and high blood pressure in pregnancy? Y N

30. Are you satisfied about the explanations you received about your present condition from the following? If you did not get any information from one category, circle N/A (not applicable).

	N/A=not applicable	1=not satisfied at all	2=not satisfied	3=neutral	4=fairly satisfied	5=satisfied	6=very satisfied
a) Obstetrician	N/A	1	2	3	4	5	6
b) Internist or medical doctor for pregnant women	N/A	1	2	3	4	5	6
c) Primary care doctor/Regular MD	N/A	1	2	3	4	5	6
d) Midwife	N/A	1	2	3	4	5	6
f) Nurse practitioner	N/A	1	2	3	4	5	6
e) Nurse	N/A	1	2	3	4	5	6
g) Friends and family	N/A	1	2	3	4	5	6
h) General media (TV, radio, newspaper, magazines)	N/A	1	2	3	4	5	6
i) Specialized media (health book, baby's book, internet sites, other pamphlet given by your health care provider)	N/A	1	2	3	4	5	6
j) The study pamphlet (if received before this questionnaire)	N/A	1	2	3	4	5	6
e) Other: »	N/A	1	2	3	4	5	6