PREGNANT WOMEN KNOWLEDGE ABOUT PREECLAMPSIA

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ABSTRACT

Deli Serdang is one of the districts that contribute to maternal mortality in North Sumatra Province. In 2019, preeclampsia became the main cause of maternal death in Deli Serdang Regency. Pregnant women who have good knowledge about pre-eclampsia have been shown to have received timely medical intervention and have had fewer adverse outcomes. The aim was to identify pregnant women knowledge about pre-eclampsia in Hamparan Perak District, Deli Serdang Regency. The study design was cross-sectional. The research sample was 143 pregnant women in Hamparan Perak District. Data were collected using a closed questionnaire and analyzed by chi square test and logistic regression. Respondents who have good knowledge about preeclampsia (29.4%). Multivariable analysis showed that education and parity were significantly related to knowledge about preeclampsia. Age, occupation, family history of preeclampsia, history of preeclampsia in previous pregnancies, gestational age, gestational interval were not related to knowledge of preeclampsia. Respondents who have good knowledge about preeclampsia (29.5%). It can be concluded that the accuracy of measuring

Keywords*: pre-eclampsia, knowledge*

INTRODUCTION

Pre-eclampsia is still the leading cause of maternal death in the world. In developed countries, maternal mortality due to eclampsia has decreased significantly over the past 50 years, but on the other hand, the rate remains high in developing countries [1]. The incidence of pre-eclampsia in Indonesia ranges from six to eight percent, with a maternal mortality rate (33,3%) [2]. One of the areas with the highest mortality is North Sumatra Province with the highest number of deaths in Deli Serdang Regency.

Carrying out evidence-basedmedical interventions in proven to be effective to preventing pre-eclampsia related maternal deaths. In addition, social interventions by increasing the knowledge and attitudes of pregnant women towards pre-eclampsia provide opportunities for timely treatment [3]. According to Fondjo et al, (2019) adequate knowledge about a disease contributes greatly to the prevention, management and control of disease. Patients' knowledge about a disease has a significant advantage in adherence to treatment and helps reduce complications associated with the disease [4].

Pre-eclampsia is a disease during pregnancy with special signs and symptoms that require immediate treatment. Pregnant woman who have good knowledge are more likely to report to the hospital and receive timely medical intervention and have fewer adverse effects [4]. This indicates that pregnant women need to be knowledgeable about pre-eclampsia, to achieve this, an assessment of basic pre-eclampsia knowledge is needed, especially in the high-risk group of pregnant women. Studies in Ghana [4] and Ethiopia [3] have shown that knowledge about pre-eclampsia among pregnant women is generally low. Lack of knowledge was found to be a predisposing factor to practice risk behaviors for pre-eclampsia [5].

Hamparan Perak District is one of the locus of maternal mortality in Deli Serdang Regency. In the last three years, there are four maternal deaths in the region and two of them were caused by pre-eclampsia. The results of tracking data on maternal mortality showed that there was a delay in making decisions to refer and access health facilities. To prevent this, it is necessary to increase pregnant women's knowledge of the danger signs of pre-eclampsia. Currently, there is no study that evaluates the knowledge of pre-eclampsia among pregnant women in Hamparan Perak District. This study aims to analyze the factors associated with pregnant women's knowledge of pre-eclampsia in Hamparan Perak District, Deli Serdang Regency.

METHOD

This type of research is analytical observational with a cross-sectional approach to see a picture of pregnant women's knowledge about preeclampsia and the factors that influence it in pregnant women in Hamparan Perak District in December 2020-April 2021. Data was obtained through direct interviews with pregnant women in five villages in the District. Overlay of Perak, Deli Serdang Regency. The research population was all pregnant women in Hamparan Perak District, Deli Serdang Regency. The sample in this study was all pregnant women who underwent pregnancy checks at the Community Health Centers in five villages, namely Paluh Kurau Village, Paluh Manan, Klambir 5 Kebun, Klambir 5 Kampung and Klumpang Village, totaling 143 people. Data analysis was carried out using the Chi Square test with $p \leq 0.05$.

RESULTS AND DISCUSSION

Data on the characteristics of pregnant women respondents in Hamparan Perak District, Deli Serdang Regency in the period December 2020 to April 2021 obtained the following results:

Table 1. Distribution of Respondent Characteristics

Characteristic	Sum	Percentage

Age (Years)		
- < 25	48	30.7
- 20-35	77	53.8
- > 35	18	12.6
Education		
- High	106	74.2
- Low	16	11.2
Occupation		
- Yes	37	25.8
- No	128	89.5
Family history of PE		
- Yes	10	7.0
- No	133	93.0
Previous PE		
- Yes	3	2.00
- No	140	98.0
Gestational age		
- Trimester 1	28	19.5
- Trimester 2	87	51.7
- Trimester 3	28	19.5
Pregnancy Interval		
- ≤ 3 years	74	51.7
- >3 years	69	48.3
Parity		
- Primigravida	45	31.5
- Multigravida	98	68.5

Table 1 shows about the characteristics of pregnant women in Hamparan Perak are 20-35 years old (53.8%), high education (74.2%), not working (89.5%), have a family history of pre-eclampsia (7%), have a history of pre-eclampsia during a previous pregnancy (2%), second trimester (51.7%), gestational age less than three years (51.7%) and multigravida (68.5%).

Table 2: Knowledge of Pregnant Women about Pre-Eclampsia (n=143)

Characteristics	n	%
Knowledge		
Good	42	29.4
Not good	101	70.6

The above table shows pregnant women who have good knowledge about pre-eclampsia (29.4%).

Table 3: Overview of Pregnant Women Knowledge about Pre-Eclampsia (n=143**)**

Characteristics	n	%
Ever heard of pre-eclampsia	84	58.7

Pre-eclampsia is normal during pregnancy	78	54.5
Symptoms of pre-eclampsia		
- High blood pressure	133	93.0
- Persistent headache	65	45.5
- Edema	127	88.8
- Blurred vision	81	56.6
- Epigastric pain	106	74.1
- Nausea and vomiting	76	53.1
- Back pain	85	59.4
Pre-eclampsia risk		
- Family history	85	40.6
- Previous history	98	68.5
- Obesity	88	61.5
- Diabetes mellitus	75	52.4
- Twins	86	60.1
- 35 years pregnant	88	61.5
- Primigravida	80	55.9
Pre-eclampsia occurs at 20 weeks of pregnancy	97	67.8
- Complications of pre-eclampsia		
- Seizures	92	64.3
- Maternal death	92	64.3
- Fetal death	83	58.0
Pre-eclampsia causes		
- ANC twice a month	109	76.2
- Mother has to delivery in hospital	69	48.3

The above table shows pregnant women who have Pre-eclampsia is normal during pregnancy (54.5%). High blood pressure is a symptom of pre-eclampsia (93.0%). Pre-eclampsia causes maternal mortality (64.3%) and causes fetal mortality (58.0%.

Table 4. The Relationship between Characteristics of Respondents and Pre-Eclampsia Knowledge f (n=143)

Variable	Knowledge of preeclampsia		χ^2	*p*	RP	95% CI
	Good n (%)	Not Good n (%)				
Age						
- <25 years	38 (79.2)	10 (20.8)	1	1	1	1
- 25-35 years	54 (70.1)	23 (29.9)	0.41	0.52	0.74	0,30-1.83
- >35 years	9 (50.0)	9 (50.0)	3.90	0.04	2.78	1.02-7.62
Education						
- High	37 (34.9)	69 (65.1)	6.05	0.01	3.4	1.23-9.55
- Low	5 (13.5)	32 (86.5)				
Occupation						
- Yes	39 (30.5)	89 (69.5)	0.70	0.40	1.75	0.55-0.30
- No	3 (20.0)	12 (80.0)				

Family history of preeclampsia						
- Yes	6 (60.0)	4 (40.0)	4.86	0.27	4.04	1.07-15.1
- No	36 (27.1)	97 (72.9)				
Previous pre-eclampsia						
- Yes	41(29.3)	99 (70.7)	0.23	0.87	0.82	0.73-9.38
- No	1 (33.3)	2 (66,7)				
Gestational age						
- Trimester 1	9 (32.1)	19 (67.9)	1	1	1	1
- Trimester 2	25 (28.7)	62 (71.3)	0.43	0.83	0.92	0.44-1.92
- Trimester 3	8 (28.6)	20 (71.4)	0.11	0.91	0.95	0.38-0.23
Interval of pregnancy						
- ≤ 3 years	14 (18.9)	60 (81.1)	8.07	0.04	0.3	0.16-0.72
- >3 years	28 (40.6)	41 (59.4)				
Parity						
- Primigravida	7 (15.6)	38 (84.4)	6.04	0.01	3.0	1.21-7.46
- Multigravida	35 (35.7)	63 (64.3)				

Table four shows that maternal age >35 years, education, interval of pregnancy and parity are significantly related to knowledge of pregnant women about preeclampsia.

Table 5. Analysis of Logistic Regression Factors Related to Pregnant Women's Knowledge of Pre-Eclampsia n (143)

Variable	*P*	RP	95% C.I.
Education	0.01	4.2	1.52-12.55
Parity	0.01	2.2	1.48-9.58
R^2	14,9		

Tables five shows that education and occupation have an effect on knowledge of pre-eclampsia. Higher educated mothers are 4.2 more likely to have good knowledge of pre-eclampsia. Multiparity had 2.2 greater odds of having good knowledge of pre-eclampsia. Education and parity contributed (14.9%) to increasing pregnant women's knowledge of pre-eclampsia.

This study reported the prevalence of insufficient knowledge about pre-eclampsia among the study population in Hamparan Perak District (70.6%) and only (29.4%) had good knowledge. Most of the respondents have heard of pre-eclampsia, but pre-eclampsia is still considered a normal occurrence during pregnancy. Almost all pregnant women know that hypertension is a symptom of pre-eclampsia, two-thirds of the respondents know that edema

and epigastric pain are symptoms of pre-eclampsia and most know that persistent headache, blurred vision, nausea, vomiting and back pain are symptoms of pre-eclampsia.

Most respondents know that a family history of pre-eclampsia, a history of pre-eclampsia in a previous pregnancy, gemelli, primigravida, DM, hypertension and kidney disease and a BMI> 30 are the risks of pre-eclampsia. Pregnant women's knowledge of complications of pre-eclampsia can cause seizures and maternal mortality (64.3%) and fetal mortality (58.0%), and only (48.3%) pre-eclampsia mothers know that they need to give birth in the hospital.

Several previous studies that reported low knowledge of pre-eclampsia among pregnant women include: a study in Ghana reported that only (2.3%) pregnant women had good knowledge about pre-eclampsia [4]. In the US (43.3%), pregnant women have good knowledge about pre-eclampsia, but only (14%) can correctly define the symptoms of pre-eclampsia [6]. Study in Malaysia, found that only 18.4% of pregnant women had adequate knowledge about pre-eclampsia.

In Indonesia, good knowledge survey on pre-eclampsia was conducted in Medan City (53.3%) [7], Banggai Regency, Central Sulawesi found (78.9%) [8], in Denpasar, Bali (70.8%) (9) and in Surabaya (47%) [10]. The study by Putra et al (2020) states that pregnant women's knowledge affects their ability to seek health care and adhere to the treatment plan [10].

Adequate understanding of the disease will contribute to its prevention, control and management. Patient knowledge of the disease has a positive impact on patient adherence and helps reduce disease-related complications [4]. It is known that the higher the knowledge, the higher the compliance level of pregnant women when using ANC services [11]. Mothers with good knowledge are more likely to have a full pregnancy check-up [12]. On the other hand, pregnant women with less knowledge about pre-eclampsia have the potential for late treatment, leading to maternal complications of pre-eclampsia [13].

The variables age mother >35 years, higher education, gestational age >3 years and multiparity have a significant effect and are more likely to have adequate knowledge of pre-eclampsia. Although in this study only (29.4%) pregnant women had good knowledge, this could be overcome. The results of the multivariate analysis showed that the significant factors independently associated with good pre-eclampsia knowledge were high level of education and parity. These findings indicate that knowledge of pre-eclampsia can be increased through education. Multivariate pregnant women gain knowledge from experiences in previous

pregnancies (14). Educating mothers during ANC using media is an effective way to increase patient knowledge of pre-eclampsia [4].

As efforts to reduce mortality associated with pre-eclampsia, increasing patients' knowledge of pre-eclampsia improves reporting of signs and symptoms of pre-eclampsia. There is an association between knowledge of pre-eclampsia and improvement in clinical outcomes. It is believed that increasing knowledge about pre-eclampsia in pregnant women may reduce the prevalence, complications, and deaths associated with this disease [4].

CONCLUSION

Respondents having only good knowledge about pre-eclampsia (29.4%). Important factors influencing knowledge of pre-eclampsia were higher education and multiparity. Higher education was found to be most influential on pregnant woman knowledge. Pregnant women should receive special education about pre-eclampsia during ANC, especially for pregnant women with risk factors for pre-eclampsia.

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