Frontiers in Community Service and Empowerment
Multidisciplinary : Rapid Review : Open Access Journal **e-ISSN: 2827-8747 p-ISSN: 2829-3029**

COMMUNITY SERVICE ARTICLE **OPEN ACCESS**

Manuscript received August 03, 2022; revised March 21, 2023; accepted March 21, 2023; date of publication March 30, 2023;
Digital Object Identifier (DOI): https://doi.org/10.35882/ficse.v2i1.20

How to cite: Deasy Irawati, Sri Wayanti, Ali Madinah, "Assistance for Pregnant Women and Families in Early Detection of Preeclampsia (PE) and Early Referral Planning as an Effort to Prevent Complications.", Frontiers in Community Service and Empowerment, vol. 2, no. 1, pp. 5-8, March. 2023

Assistance for Pregnant Women and Families in Early Detection of Preeclampsia (PE) and Early Referral Planning as an Effort to Prevent Complications

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ABSTRACK The purpose the activity is to increase the participation of pregnant women and families in early detection of Preeclampsia (PE) risk and early referral planning as an effort to prevent complications. The methods are carried out in several stages, namely pregnancy health education with PE, early detection screening by health workers using the 2020 MCH book guidelines (risk factor history, as well as BMI, Mean Arterial Pressure and urine protein checks. If the screening results found the risk of PE or diagnosed PE (BP ≥ 140/90 mmHg and positive urine protein) then followed by reporting to the local midwife, motivating the mother for early referral action planning and assistance during pregnancy. Results: knowledge of pregnant women and families about PE increased from 67% in the poor category, after receiving information 92% in the good category. Early detection screening by health workers using the 2020 MCH book guidelines, out of 12 pregnant women, 2 people (16.7%) had a risk of PE and 10 people (83.3%) did not have a risk of PE. None of the pregnant women were diagnosed with PE. 2 pregnant women who have the risk of PE (100%) have been reported to the Kapor village midwife and are willing to be referred to the Burneh Puskesmas. There is an increase in community participation (pregnant women and families) in early detection of PE and early referral planning as an effort to prevent complications.

INDEX TERMS: pregnant women. Early detection of Preeclampsia (PE), prevention of complications

I. INTRODUCTION

Pregnancy is a physiological process, but a normal pregnancy can turn out to be pathological/abnormal[1]. The risks of pregnancy are dynamic, because normal pregnant women can suddenly experience complications, one of which is Preeclampsia (PE)[2][3][4]. PE is the occurrence of hypertension (an increase in systolic blood pressure greater than or equal to 140 mmHg or diastolic pressure greater than or equal to 90 mmHg) that occurs after 20 weeks of gestation accompanied by proteinuria (>300 mg protein or more than 30 mg / dL per 24), the presence of maternal organ dysfunction such as renal insufficiency[5], hepatic, neurological or haematological complications, uteroplacental dysfunction and or fetal growth disorders[4][6][3].

Puskesmas Burneh is listed as the Puskesmas with the highest number of high-risk pregnancies in Bangkalan. One of the causes is Preeclampsia. Kapor Village is one of the villages located in Burneh Sub-district, with 33 pregnancies in 2020 and 2 Severe Preeclampsia (PEB) detected Complications due to PE can actually be prevented by adequate antenatal care (ANC) and early detection screening of PE risk in pregnant women[7][8][9]. Early detection needs to be carried out by health workers and the community, especially pregnant women[9] PE screening can be done through a complete history of the pregnant woman's health history by midwives / doctors to determine whether pregnant women have risk factors for PE or not as well as physical examination of BMI[6], Roll Over Test and Mean Arterial Pressure (Tampubolon, Herawati and Ernawati, 2021). The latest guidelines for PE screening in Indonesia have been implemented and are contained in the MCH Book.

Research by (Irawati, Anisak and Madinah, 2022) and (Dewi, 2017) on the ability of early detection of PE risk showed that primiparous and grandemulti pregnant women had poor early detection skills[10][11]. The results also showed that pregnant women with poor knowledge had

poor early detection skills, pregnant women with sufficient knowledge all had poor skills and pregnant women with good knowledge had good early detection skills and the results of statistical tests showed a relationship between knowledge and early detection skills[7][11][12][13]. Research at the level of awareness affects compliance with antenatal care referral services in pregnant women with severe preeclampsia and eclampsia cases[14][15][8].

There needs to be an effort to increase knowledge about PE, not only for pregnant women but also for families as the closest person who has a very important role. Family support for pregnant women can be a motivation and reinforcement, both in the form of empathy and all assistance in order to undergo the process of pregnancy until delivery healthily and smoothly. Thus, mothers and families can work together with health workers to recognise and find pregnant women who are at risk of PE or diagnosed with PE so that adequate treatment can be carried out as early as possible. This is the key to success in reducing MMR and IMR[16][17].

The socio-cultural situation of the Kapor village community is one of the potentials that can be used in behaviour change when given information. The socio-cultural situation of the Kapor village community can be said to be good because the interaction between the community with one another can be well established so that coordination between the hamlet head and the community is easy to do[18]. The social activities of the community are gathering together, deliberating and often exchanging ideas in the village hall to create the progress of Kapor village. The villagers themselves are mostly relatives or families who have lived in Kapor village for a long time, so their relationship and tolerance are very high. The social situation of the community in Kapor village is good, this is known from the state of the community that does not close itself to the times and the community is also not technologically illiterate. Interaction becomes easy when people already have the ability to communicate with people outside Madura. Here the solution on the problem:

1. Increase the knowledge of pregnant women and their families about Preeclampsia[19]
2. Improve the ability of pregnant women in early detection of Preeclampsia risk factors[9].
3. Increase the coverage of pregnant women who are at risk of Preeclampsia and who are diagnosed with PE by health workers[20].
4. Conduct early referral planning for pregnant women who have a high risk of PE or who are diagnosed with PE[11][17][10].

The activity was performed at Kapor Village, Burneh Sub-district, Bangkalan Regency.

Target achievement

1. 60% of pregnant women and their families have good knowledge about Preeclampsia.
2. Coverage of pregnant women at risk of PE coverage of pregnant women at risk of PE and those diagnosed with PE by health workers reaches 100%.
3. Coverage of early referral planning for pregnant women who have a high risk of PE and who are diagnosed with PE reaches 50%

III. METHODS

The target of activity are the 12 pregnant women, and the families of pregnant women: 12 people

2. Method of Service

a. Participants are pregnant women and their families. During the counselling, information was given about: Pregnancy with Preeclampsia, early detection and management.
b. Providing information through lecture and question and answer methods, media used leaflets and PPT.
c. Early detection screening by health workers using the 2020 MCH book guidelines (risk factor history, as well as BMI, Mean Arterial Pressure and urine protein checks.
d. If the screening results are found to be at risk of PE or diagnosed with PE (BP ≥ 140/90 mmHg and positive urine protein) then proceed with reporting to the local midwife, motivating the mother for early referral planning and assistance during pregnancy[2][21]. Complication prevention efforts are carried out in several stages, namely: Pregnancy health education with PE.

II. IMPLEMENTATION

1. PROVIDING HEALTH EDUCATION

During the delivery of the material, participants were given the opportunity to ask questions if there were things that were not clear. Participants were cooperative and actively participated during the counselling process, and the atmosphere was conducive. Post Test: to determine the understanding of pregnant women regarding the knowledge and ability of pregnant women regarding early detection of PE, most (92%) in the good category and only (8%) in the sufficient category.

2. EARLY DETECTION SCREENING OF PE IN PREGNANT WOMEN BY HEALTH WORKERS

The activity was conducted after the provision of health education was completed. PE screening uses the 2020 MCH book guidelines, carried out by Community Service implementing lecturers and students and accompanied by village midwives. Screening activities begin with a history of PE risk factors followed by a physical examination: BMI, Mean Arterial Pressure and urine protein. Screening results obtained: Of the 12 pregnant women, 2 people (16.7%) had a risk of PE and 10 people (83.3%) did not have a risk of PE. PE early detection screening activities by health workers are documented as follows:

 e-ISSN: 2827-8747 p-ISSN: 2829-3029

FIGURE 1 Anamnesa fakto risiko PE

FIGURE 2 Physical examination of participants: BMI, Mean Arterial Pressure and urine protein

3. PLANNED EARLY REFERRAL OF PREGNANT WOMEN

2 pregnant women at risk of PE (100%) have been reported to the Kapor village midwife and are willing to be referred to Puskesmas Burneh.

FIGURE 3 Motivating Early Referral of Pregnant Women at Risk of PE

FIGURE 4. Coordination With Bakesbangpol

FIGURE 5. Coordination with Village Midwife

4. HEALTH EDUCATION ON EARLY DETECTION AND TREATMENT OF PREECLAMPSIA (PE)

The date of implementation: 24 May 2022 at 08.30am to 12.00pm. The place at Poskesdes of Kapor Village, Burneh Sub-district. The participants are 3 lecturers, 5 students, 12 pregnant women, and 12 families as companions. This activity was accompanied by the village midwife

Activity Process

a. Preparation: Participants must apply health protocols, fill in the attendance list.

FIGURE 6. Participants Fill in the Attendance List

b. Pre-test to determine the understanding of mothers and families about pregnancy with PE before being given information, with the results of most (67%) in the poor category and only (23%) in the sufficient category[22][23][9].

c. Provision of material and question and answer discussion

The lecturers who gave the material were the community service organisers[24][15]. The material was given through the lecture and question and answer method. Media used: PPT, LCD, projector screen, leaflet, module, MCH book related to PE screening guidelines. Information provided includes: Maternal mortality rate, Definition, Causes, Signs and Symptoms, Impact, Early detection, Prevention and Management.

IV. RESULTS

1. MODULE DEVELOPMENT

The module is divided into four (4) main sections, namely the introduction section contains why it is important to reduce maternal mortality in Indonesia and government programmes that exist and have been carried out in Indonesia. The second part, contains materials on pregnancy with PE including Definition, Causes, Signs and Symptoms, Impact, Early Detection, Prevention and Management. Each topic is accompanied by a formative test to evaluate the knowledge of pregnant women[3][9][25]. The module has an ISBN No. 9786239597979.

2. PREGNANCY HEALTH EDUCATION ACTIVITIES WITH PE

According to plan, attended by executive lecturers, students, pregnant women and their families, community leaders and village midwives[21][14][21]. Participants followed the activity from the beginning to the end, the workshop participants were cooperative and actively participated during the counselling process, the atmosphere of the activity was conducive. After being given information about early detection of high risk pregnancy, there was an increase in the knowledge of pregnant women from the previous 67% in the poor category, after receiving information 92% in the good category.

3. EARLY DETECTION SCREENING BY USING THE 2020 MCH BOOK GUIDELINES,

out of 12 pregnant women, 2 people (16.7%) had a risk of PE and 10 people (83.3%) did not have a risk of PE[14]. None of the pregnant women were diagnosed with PE. Two pregnant women who have PE risk (100%) have been reported to the midwife of Kapor village and are willing to be referred to Burneh Health Centre.

IV. CONCLUSION

The purpose the activity is to increase the participation of pregnant women and families in early detection of Preeclampsia (PE) risk and early referral planning as an effort to prevent complications. Pregnancy health education activities with PE went according to plan, attended by executive lecturers, students, pregnant women and their families, community leaders and village midwives. Participants followed the activities from the beginning to the end, the workshop participants were cooperative and actively participated during the counselling process, the atmosphere was conducive. After being given information about early detection of high risk pregnancy, there was an increase in knowledge of pregnant women from the previous 67% in the poor category, after receiving information 92% in the good category. Early detection screening by health workers using the 2020 MCH book guidelines, out of 12 pregnant women, 2 people (16.7%) had a risk of PE and 10 people (83.3%) did not have a risk of PE. None of the pregnant women were diagnosed with PE.

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