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# Empowerment of Community (Health And Family Cadres) In Early Detection of High-Risk Pregnant Mothers Is a Prevention of Pregnancy Complications

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**ABSTRACT** Purpose of activity is to increase community participation in the early detection of risks in pregnant women to avoid complications in pregnancy. Methods of service is a workshop to support cadres in identifying high-risk pregnancies, home visits by cadres to pregnant women to identify and find high-risk pregnant women and inform health workers, provision of ANC services, and health education to high-risk pregnant women by health workers. Results of the activity are increased health cadres' knowledge of early detection of high-risk pregnancies by 100% in the poor category before receiving the information, and by 100% in the good category after receiving the information, coverage of high-risk pregnancies found by health cadres, and reported to the village midwife by 100%, knowledge of mothers and families regarding early detection of high-risk pregnancies before receiving the information by 6 people (66.7%) in the poor category, 3 people (33.3) in the medium category. After receiving the information, 9 persons (100%) were in a good category. Community (cadres and families) participation in the early detection of high-risk pregnant women has increased.

**INDEX TERMS:** Early Detection of High-Rsk Pregnancies, Health Cadres,

## I. INTRODUCTION

Pregnancy is a physiological process, but a normal pregnancy can turn into a pathological/abnormal pregnancy. Pregnancy risk is dynamic, as a normal pregnant woman can suddenly become high risk [1][2][3][4]. According to Poedji Rochjati, a high-risk pregnancy is one with one or more risk factors that adversely affect both the mother and the foetus and pose an emergency risk but are not an emergency [5][4][6][7].

Burneh Health Centre is listed as the health centre with the highest number of high-risk pregnancies in Bangkalan (Harunatussyarifah, 2018), but health workers cannot detect them individually, so community involvement (families and cadres) is needed in identifying high-risk pregnancies[2][8][9][10][7][11]. Kapor village is one of the villages in Madura Island, more specifically in Bangkalan area, Burneh sub-district. In Kapor village, there is a Poskesdes, a village midwife, who is supported by 12 health workers spread over 3 hamlets.

The health cadres play an important role in maternal and child health programs, including providing information on all health problems related to the health of pregnant women and newborns[12][13][14][15]. One of the roles of the maternal and child health cadres is to motivate pregnant women to seek antenatal care from health workers[9][10][13][16][11]. Under the risk approach strategy, screening activities are an important component of antenatal care, which must be followed by communication, information, and education (KIE) for pregnant women, husbands, and families to plan for safe delivery and prepare for referral if needed. The Poedji Rachjati Score Card (KSPR) takes the form of a scorecard to be used as a family-based antenatal screening tool to identify risk factors in pregnant women to avoid possible obstetric complications during delivery[4].

The study by Suhartini & Ahmad (2019) on 120 health cadres in the Cikulur Health Center work area found that the cadres had low knowledge (28.3%). And out of the 120,

85 cadres (70.8%) reported that they have never attended any training on early detection of high-risk pregnancies. In another study by Kusuma (2018), the knowledge of most health cadres on early detection of high-risk pregnancy is low (61.3%) [18][2][19]. This has led to the cadres not covering early detection of high-risk pregnant women (72.6%)[6][10].

The findings of this study suggest that a collaborative intervention across programs and related sectors is needed to improve cadres' knowledge and understanding of early detection of high-risk pregnancies [18][2][19][4][20][15]. This is important considering that cadres are the extended arms of health workers and are closest to pregnant women in the village[9][14]. Hopefully, if cadres are well versed in the early detection of high-risk pregnant women, risk factors for pregnancy can be identified early so that prompt and appropriate treatment can be provided, which will have a significant impact on reducing maternal mortality in the villages [18][8][19][6][13].

The solution to the problem: a. Inter-programme and inter-sectoral collaboration: negotiations with policymakers: district health office. Bangkalan, head of Burneh Community Health Centre, Kapor village headman, and Kapor village midwife. b. Improve cadres' knowledge and understanding of early detection of high-risk pregnancies by providing information and support on early detection of pregnancy risks using the Pudji Rochjati Score Card[18][6][16]. c. Increasing the involvement of cadres in the detection and identification of high-risk pregnant women and in providing information to health workers[2][8][7]. d. Increased involvement of families in the detection and identification of high-risk pregnant women and in making referrals for early planning[7]. Duration of intervention: 3 months, from August to October 2021. Place of service: Kapor village, Burneh district, Bangkalan regency.

Target achievement:

1. 60% of health cadres and families have good knowledge of high-risk pregnancies[10]
2. Up to 50% more high-risk pregnant women detected by health cadres[10][16].

## II. METHOD

### 1. Target Audience

The targets of the civilian service include: a). health cadres: 12 persons, b). pregnant women: 14 persons, c) family of pregnant women : 14 persons

### 2. Devotional method

a. Elaboration of a module on early detection of high-risk pregnancies that includes information on maternal mortality and its causes, early detection of high-risk pregnancies using the Pudji Rochyati score, the role of health cadres in early detection of high-risk pregnancies and counseling, checklists that can be used by health cadres to detect high-risk pregnancies, a guideline table for health cadres during home visits to pregnant women and counseling tables with midwives[20][21][22][23]. b.

Workshop to support health cadres in identifying high-risk pregnancies using the Pudji Rochjati Score Card. c. Home visits to pregnant women in Kapor village by the health cadres to identify high-risk pregnant women based on the Pudji Rochjati Score Card and inform the village midwife of the results [24][11]. d. Provision of ANC services to high-risk pregnant women. This activity is carried out by health workers through home visits to high and very high-risk pregnant women[3][20][22][23]. The aim of this activity is to :

- Monitor the progress of pregnancy and ensure the health of the mother and the growth of the baby [20].
- Detect early any abnormalities or complications that may occur during pregnancy[20]
- Referral for obstetric care planning
- Improving knowledge of mothers and families through education

## III. RESULTS

### 1. WORKSHOP ON HIGH-RISK EARLY DETECTION IN PREGNANT WOMEN

a. Implementation date: September 2, 2021, from 08.30 to 12.00 am

b. Venue: Kapor Village Hall

c. Participants: 3 community service lecturers and 4 students, 12 Kapor village health cadres, accompanied by village midwives and Kapor Village officials: Village Head, Kapor Village Secretary, and Heads of RT 1 and 2.

d. Activity Process

- Pre-test to complete the Pudji Rochyati scorecard by the health cadres, the results were 12 people (100%) in the poor category.
- Provision of material and discussion of questions and answers.
- The material provider is a lecturer who conducts community service.
- The material is provided in the form of lectures, questions and answers, and demonstrations.
- Media used: PPT, LCD, projector screen, KSPR (Pudji Rochyati Score Card).
- Information imparted includes Maternal mortality, high-risk pregnancies, and early detection of high-risk pregnancies using Pudji Rochyati Score Card, role and responsibilities of cadres in early detection of high-risk pregnancies, and counseling[16].
- When the material is provided, workshop participants are cooperative and actively participate in the counseling process, the atmosphere of the event is conducive
- Supporting the health cadres to complete the CSPR[14].
- After imparting the material, each participant was asked to demonstrate how to fill out the CSPR using a quasi-case. The filling process is facilitated by lecturers, students, and village midwives
- After the test, the health cadres filled the Pudji Rochyati scorecard. The results were 12 people (100%) in the 'good' category[16]. For more details, the workshop activities are documented as follows: **FIGURE 1**

## 2. HOME VISIT BY CADRES TO PREGNANT WOMEN IN KAPOR VILLAGE

From 3 to 5 September 2021, health cadres conducted home visits to pregnant women and detected high-risk pregnancies early using the Pudji Rochyati scorecard. There are 12 health cadres involved in this activity. Results of the cadres' activities: a. 14 pregnant women found in Kapor village. b. Based on the KSPR, 2 (14.3%) of the 14 pregnant women had a very high-risk pregnancy, 7 (50%) had a high-risk pregnancy and 5 (35.7%) had a low-risk pregnancy. c. The coverage of high-risk pregnancies detected by the health cadres and reported to the village midwife is 100%.

The home visits conducted by the health cadres are documented as follows: [FIGURE 2](#)

## 3. ANC SERVICES FOR PREGNANT WOMEN AT HIGH RISK AND HEALTH EDUCATION FOR MOTHERS AND FAMILIES[21].



**FIGURE 1.** Workshop to Support Health Cadres in the Early Detection of High-Risk Pregnancies

On 8, 13, and 16 September 2021, 9 high-risk pregnant women were served through home visits and health education for high-risk pregnant women and their families continued[22][25]. Question-answer lecture method, media used leaflets. Results of ANC screening: out of 9 pregnant women who underwent ANC, 1 was found to have hypertension during pregnancy (blood pressure: 140/90 mmHg). Planning delivery of pregnant women with very high risk: 1 person (50%) planned delivery by a doctor at the hospital and 1 person (50%) planned delivery by a midwife at PMB. Meanwhile, 100% of high-risk pregnant women planned to deliver with a midwife[3][19][4][22].

The pre-test and post-test results show that mothers' and families' knowledge about early detection of high-risk



**FIGURE 2.** Home visits by Health Cadres to Pregnant Women in Kapor Village

pregnancies has improved[22]. Families' knowledge before the information was in the low category for 6 people (%) and in the medium category for 3 people (). After receiving the information, 9 people (100%) were in a good category. ANC services for high-risk pregnant women by health workers are documented as follows: [FIGURE 3](#)



**FIGURE 3.** ANC services for high-risk pregnant women by health workers during home visits

## IV. CONCLUSION

Community service activities will be conducted from August to October 2021 and have received approval from Bankesbanpol, Bangkalan District Health Office, Burneh Health Center, and Burneh Village Head.

The module on early detection of high-risk pregnancy for health cadres has been prepared and has an ISBN.

Workshop activities to support health cadres in detecting high-risk pregnancies using the Pudji Rochjati



scorecard are proceeding according to plan. conducted, in which lecturers, students, cadres, community leaders, and village midwives participated. The participants participated in the activity from the beginning to the end, the workshop participants were cooperative and actively participated in the consultation process, and the atmosphere of the activity was conducive. After receiving information about early detection of high-risk pregnancies, the knowledge of health cadres increased from 100% in the "less" category before to 100% in the "good" category[18].

Home visits to pregnant women in Kapor village by the cadres went according to plan, all cadres in Kapor village were involved. According to KSPR, of the 14 pregnant women in Kapor village, 2 people (14.3%) had a high-risk pregnancy, 7 people (50%) had a high-risk pregnancy, and 5 people (35.7%) had a high-risk pregnancy. The coverage of high-risk pregnancies detected by health cadres and reported to the village midwife was 100%[14].

ANC services were provided to 9 high-risk pregnant women through home visits. Of the 9 pregnant women who underwent ANC, 1 had hypertension during pregnancy (blood pressure: 140/90 mmHg). Planning of delivery of pregnant women with very high risk: 1 person (50%) planned delivery by a physician in the hospital and 1 person (50%) by a midwife in PMB. Meanwhile, 100% of high-risk pregnant women planned to deliver with a midwife. After being informed about early detection of high-risk pregnancy, family knowledge increased from 6 people (66.7%) in the "less" category, 3 people (33.3%) in the "medium" category, and 9 people (100%) in the "good" category[3].

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