

Enhancing the Role of *Posyandu* Cadres in Early Detection and Support for High-Risk Pregnant Women through a Psychoeducation Approach



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ABSTRACT

Introduction: High-risk pregnancies are a major cause of maternal morbidity and mortality, both on a global and national scale. Tuminting Public Health Center, which is a partner in the Community Partnership Empowerment activities, has a significant number of patients with high-risk pregnancies. This indicates an urgent need for the care of high-risk pregnant women. Pregnant women with high-risk pregnancies require priority and continuous care, including early screening/detection, monitoring, and support. However, a situation analysis at the partner site has identified several issues, including: 1) *Posyandu* cadres are not actively involved in supporting high-risk pregnant women, resulting in these women not receiving appropriate healthcare for their pregnancy conditions. 2) Health promotion media for high-risk pregnant women is limited, preventing these women from receiving accurate health information tailored to their condition. The objectives of these activities are to enhance the role of cadres in supporting high-risk pregnant women and to improve the availability of health promotion media as a support tool for cadres in their role.

Methods: To address these issues, the proposers offer the following solutions: 1) Training on early detection, monitoring, and support for *posyandu* cadres using a psychoeducational approach. 2) Training on the use of digital media for health promotion for high-risk pregnant women for cadres.

Results: This training was attended by 37 cadres at Tuminting Public Health Center. Participants' knowledge levels were evaluated before and after the activity. The evaluation of these activities showed a p-value of 0.000, indicating that there was a difference in the knowledge of the training participants before and after the training.

Conclusion: Training activities with a psychoeducational approach can improve the knowledge of cadres, enabling them to enhance their role in early detection and support for high-risk pregnant women.

Keywords: Cadres; high-risk pregnancy detection.

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INTRODUCTION

In 2020, the World Health Organization (WHO) stated that close to 800 mothers passed away on a daily basis, and it was projected that approximately every two minutes a mother would tragically lose her life. These maternal deaths are largely preventable and are linked to issues during pregnancy and childbirth. Shockingly, 95% of all maternal fatalities took place in low- and middle-income nations, including Indonesia.¹ Maternal morbidity and mortality rates in Indonesia continue to be a significant concern. According to data from the Indonesian Ministry of

Health in 2022, the Maternal Mortality Rate (MMR) in Indonesia reached 7,389 deaths, reflecting a worrisome increase of over 50% compared to the figures from 2020. The leading causes of maternal deaths in Indonesia still revolve around complications related to pregnancy and childbirth, including issues like bleeding, pregnancy-induced hypertension, and infections. Importantly, all of these complications can be prevented if they are detected early and closely monitored during pregnancy.²

The partner in this Community Partnership Empowerment initiative is Tuminting Public Health Center, and the

target beneficiaries are *Posyandu* cadres. Tuminting Public Health Center is one of the 16 primary health centers in Manado City and has the most extensive coverage area. Consequently, this health center records the highest number of visits by pregnant women compared to other health centers in Manado. The number of pregnant women making Antenatal Care (ANC) visits at Tuminting Public Health Center from January to April 2023 is 78. The annual data summary 2022 at Tuminting Public Health Center showed an increase in high-risk pregnancies. The cases included 18 pregnant women with pregnancy-induced hypertension, 15

grandmultiparous women (having given birth more than 4 times with the mother's age exceeding 35 years), 30 teenage pregnancies (pregnancies in women under 19 years of age), and 25 pregnancies with comorbidities.

This data indicates the urgent need for care for high-risk pregnant women. High-risk pregnant women require priority and continuous care, including early screening, monitoring, and support. This approach can prevent maternal morbidity and mortality. However, the partner faces the challenge of limited healthcare personnel providing services, making it necessary to actively empower cadres to monitor pregnant women, labor, and postpartum care. This empowerment aims to increase the active participation of husbands, families, pregnant women, and the community in planning safe deliveries and preparing for complications during pregnancy, childbirth, and postpartum. However, most of the services provided by cadres primarily focus on child health services in *Posyandu*. Services for pregnant women are limited to measuring weight and providing primary health education. Cadres also reported that they have not conducted monitoring and support for high-risk pregnant women.

Therefore, the objectives of these activities are to enhance cadres' support of high-risk pregnant women and improve the availability of health promotion media as a support tool for cadres.

METHOD

To address the issues with the partner, a community service project was conducted as follows:

1. Training on early detection, monitoring, and support for *Posyandu* cadres using a psychoeducational approach.
2. Training on the use of digital media for promoting the health of high-risk pregnant women for cadres

The target audience for these activities includes representatives of health cadres from all *Posyandu* in the working area of Tuminting Public Health Center. The community service project involved the following steps:

1. Preparation Phase: During this stage, the team prepared everything related to

the project's implementation, including obtaining permits from the Manado City Health Department, preparing handbooks, creating evaluation tools, and coordinating and communicating with project partners. The Manado City Health Department granted permission for this activity with letter number 400.07/D.02/Health/170/2023.

2. Implementation Phase: The implementation phase involved conducting training for cadres on early detection, monitoring, and support for high-risk pregnant women and training on using digital media to promote their health.
3. Evaluation Phase: In this stage, the team conducted an evaluation. The evaluation of cadre knowledge level is performed using pre-test and post-test. The instrument utilized to assess knowledge is a questionnaire comprising 20 items. Data are analyzed through descriptive analysis to depict the frequency characteristics of respondents and portray the knowledge level before and after. Furthermore, the Wilcoxon analysis examines the training's impact on enhancing cadre knowledge.

RESULT

Overview of Activity Implementation

The training activities took place in Tuminting Public Health Center on October 13, 2023, and were attended by 37 cadres. All training participants are depicted in [Figure 1](#). The training session consisted of two parts: 1) Training on early detection, monitoring, and support for *Posyandu* cadres using

a psychoeducational approach. This session included the following stages: exploration and assessment, presentation of materials and discussions, concluding with demonstrations and role-playing. 2) Training on using digital media to promote the health of high-risk pregnant women for cadres. This session involved lectures and practical exercises in creating health promotion media. All training activities are illustrated in [Figures 2](#) and [3](#).

Overview of Activity Results

The characteristics of the cadres who participated in the training activity are presented in the following table:

[Table 1](#) shows that the majority of cadres (67.6%) are aged between 40-50 years, most of them (81.1%) have a high school education, and the majority (45%) have been cadres for 1-5 years.

The table illustrates the distribution of cadre participants' knowledge levels before and after the training, along with the corresponding p-values. [Table 2](#) indicates that most training participants (96.6%) had insufficient knowledge before the training. However, after the training, most respondents (83.8%) had good knowledge, with a p-value of 0.000, signifying a significant difference in the average knowledge level before and after the training.

DISCUSSION

The evaluation results show that there is an increase in knowledge after participants have been given training with a psychoeducational approach. Psychoeducation has been described as actions taken to educate individuals about



Figure 1. shows the training participants with the team.



Figure 2. Illustrates the material presentation activity.



Figure 3. Depicts the role-playing activity.

Table 1. Characteristics of Training Participants

Characteristics	n	%
Age (years):		
30-40	1	2,7
>40-50	25	67,6
>50	11	29,7
Education:		
Elementary School	1	2,7
Junior High School	4	10,8
Senior High School	30	81,1
Higher Education	2	5,4
Occupation:		
Employed	5	86,5
	32	13,5
Years as a Cadre		
1-5 years	17	45,9
>5-10 years	4	10,8
>10 years	16	42,3
Total	37	100

their specific condition, offering support, imparting information, and providing them with skills to manage their disorder.³ In simpler terms, it can be summarized

as a systematic and educational method aimed at enlightening both patients and their family members about their illness and its treatment, to enhance

their comprehension and personal ability to manage the condition.⁴ Recipients of psychoeducation interventions can encompass a range of individuals, such as the person directly affected, parents, teachers, or others.³ In this activity, the training target with a psychoeducational approach is health cadres.

Psychoeducation is a group-based intervention that targets patient, family, or community groups to enhance their knowledge.⁵ This intervention can be both short-term and long-term, depending on the frequency and duration of each session. These activities can take place in hospitals or within the community. Psychoeducation sessions are reported to last for about 60 minutes. The process is highly structured with content to enhance knowledge, problem-solving, and skill training.⁶

Interventions carried out within the classroom setting may involve behavioral techniques designed for teachers, such as implementing reward systems to minimize disruptive classroom behavior.⁷ These strategies can also emphasize enhancements in academic performance.⁸ Research supports the effectiveness of classroom-based interventions.⁷

Psychoeducation is an intervention used to enhance the knowledge and skills of cadres in this activity. The effectiveness of psychoeducation intervention has been tested in several studies. Research results indicate that the groups receiving psychoeducation intervention showed significant improvement in the competence of caring and coping, problem-solving and providing social support.⁹⁻¹¹ Problem-solving is one of the competencies highly needed by cadres. The research findings indicate that problem-solving skills can improve caregiving and reduce stress while providing care.¹²⁻¹⁴

Other studies have shown that psychoeducation is a cost-effective and easy-to-implement intervention that enhances long-term knowledge, thus improving maternal health management and reducing fear during the childbirth process.¹⁵ The use of the PoedjiRochjat scorecard (KSPR) in the early detection of high-risk pregnancies has been examined in the research. In 2015, a study by Widarta et al. found that the use of KSPR

Table 2. Cadre Participants' Knowledge

Knowledge Aspect	Before Training		After Training		P-Value
	n	%	n	%	
Insufficient Knowledge	35	96,6	0	0	.000
Adequate Knowledge	2	5,4	6	16,2	
Good Knowledge	0	0	31	83,8	

remains highly relevant in detecting high-risk pregnancies in Indonesia.¹⁶

The author also acknowledges several potential limitations in this study, including the local focus on Tuminting Public Health Center that may limit the generalization of results, a relatively small sample size (37 cadres), and the method of evaluating knowledge using an untested instrument, introducing potential bias.

CONCLUSION

Training cadres with a psychoeducational approach significantly improves their knowledge of detecting and supporting high-risk pregnant women. Therefore, this approach can also be applied to training cadres on various other topics.

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CONFLICT OF INTERESTST

There is no conflict of interest to declare

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