KNOWLEDGE AND SKILLS OF CADRES IN EARLY DETECTION OF HIGH-RISK PREGNANCIES WITH THE INNOVATION OF MADU UMI (SOCIETY FOR THE CARE OF HIGH-RISK PREGNANT WOMEN: A MIXED METHOD

Indah Christiana[1], Sulistyaningsih[2], M. Nurdin Zuhri[3]
[1,2] *Magister of Midwifery, Universitas 'Aisyiyah Yogyakarta, Central Java, Indonesia*
[3] *Radiology, Universitas 'Aisyiyah Yogyakarta, Central Java, Indonesia*
Email: indahchristiana84@gmail.com [1], sulistyaningsih@unisayogya.ac.id[2], nurdinzuhdi08@gmail.com[3]

ABSTRACT~~~~~~
Early detection of pregnancy with risk factors is an activity carried out to find pregnant women who have risk factors and obstetric complications. Detection of risk factors in mothers by both health workers and the community is an important effort in preventing death and morbidity. The aim is to determine cadres' knowledge and skills in detecting high-risk pregnancies early with the Madu Umi innovation. The study applied mixed methods explanatory sequential design. This is quantitative research using a pre-experimental one-group pretest-posttest design. The population was 48 cadres using a total sampling technique, and the data analysis used Wilcoxon. The qualitative stage used descriptive sampling and purposive sampling with 5 cadres, 5 pregnant women, 1 regional midwife, and 1 PKK leader as informants. The analysis of Miles and Huberman's model using Nvivo 12 plus. Results: there was a significant difference in the skills and attitudes of cadres, but in the knowledge of cadres, there was no significant difference before and after being given the implementation of Madu Umi. The Conclusion of the study is in practice, implementing Madu Umi can provide understanding, development of psychomotor skills, benefits for cadres, coordination mechanisms, and the role of cadres. Barriers to implementation do not occur in pregnant women but occur in health cadres, namely barriers to communication and understanding.

Keywords: Cadres; high risk pregnancy; knowledge; skills;

ABSTRAK~~~~~~
Deteksi dini kehamilan dengan faktor risiko merupakan suatu kegiatan yang dilakukan untuk menemukan ibu hamil yang memiliki faktor risiko dan komplikasi obstetri. Deteksi faktor risiko pada ibu baik oleh tenaga kesehatan maupun masyarakat merupakan upaya penting dalam mencegah kematian dan kesakitan. Tujuannya adalah untuk mengetahui pengetahuan dan keterampilan kader dalam melakukan deteksi dini kehamilan risiko tinggi dengan inovasi Madu Umi. Penelitian ini menggunakan metode penelitian mix methods explanatory sequential design. Jenis penelitian ini adalah penelitian kuantitatif dengan rancangan pre-experimental one group pretest-posttest design. Populasi penelitian ini adalah kader yang berjumlah 48 orang dengan menggunakan teknik total sampling dan analisis data menggunakan Wilcoxon. Tahap kualitatif menggunakan teknik deskriptif sampling dengan menggunakan purposive sampling dengan informan sebanyak 5 orang kader, 5 orang ibu hamil, 1 orang bidan daerah dan 1 orang ketua PKK. Analisis model Miles and Humberman menggunakan Nvivo 12 plus. Hasil: terdapat perbedaan yang signifikan pada keterampilan dan sikap kader, namun pada pengetahuan kader tidak terdapat perbedaan yang signifikan sebelum dan sesudah diberikan

penerapan Madu Umi. Kesimpulan penelitian adalah dalam pelaksanaannya, penerapan Madu Umi dapat memberikan pemahaman, pengembangan kemampuan psikomotorik, manfaat bagi kader, mekanisme koordinasi dan peran kader. Hambatan dalam pelaksanaan tidak terjadi pada ibu hamil tetapi terjadi pada kader kesehatan yaitu hambatan komunikasi dan pemahaman.

Keywords: Kader, Kehamilan risiko tinggi, Keterampilan, Pengetahuan

INTRODUCTION

The maternal mortality rate in Indonesia remains high, around 305 per 100,000 live births, not meeting the target set at 183 per 100,000 live births in 2024 (Bapennas, 2023). Data from the East Java Provincial Health Office, MMR in East Java tends to fluctuate. In 2020, the figure reached 98.40 per 100,000 births, increasing to 234.7 per 100,000 live births in 2021, and then decreasing to 93.00 per 100,000 live births in 2022. Banyuwangi Regency 2022 became the 3rd largest contributor to maternal mortality in East Java after Jember Regency and Pamekasan Regency due to high-risk pregnancies (Dinas Kesehatan Provinsi Jawa Timur, 2022).

Globally, around 15% of all pregnancies are high-risk (WHO, 2019). In Indonesia in 2022 the prevalence of high-risk pregnant women was 14.31% (Ministry of Health of the Republic of Indonesia, 2023), in East Java in 2020 it was 12.95% and increased to 13.73% in 2021 (East Java Provincial Health Office, 2023). In Banyuwangi Regency in 2020 it was 15.28%, 15.82% in 2021 and increased to 16.39% in 2022. At the Sobo Health Center, the number of high-risk pregnant women in 2022 was 92 and increased in 2023 to 219. Meanwhile, in Pakis Village in 2022 there were 16 pregnant women and in 2023 it increased to 23 (Dinas Kesehatan Kabupaten Banyuwangi, 2023).

Based on a preliminary study in Pakis Village, there was 1 maternal death in 2020 and 2 deaths in 2021 caused by high parity and maternal age >35 years, in addition, the number of high-risk pregnant women in 2022 was 16 pregnant women and increased to 23 pregnant women in 2023. The results of interviews with 5 Pakis village cadres on January 26, 2024 showed that early detection of high-risk pregnancies in Pakis Village currently still depends on the role of village midwives in Antenatal services, without any efforts to empower the community for early detection. The lack of knowledge and skills of health cadres in this case indicates a low level of awareness in identifying high-risk pregnancies in the area.
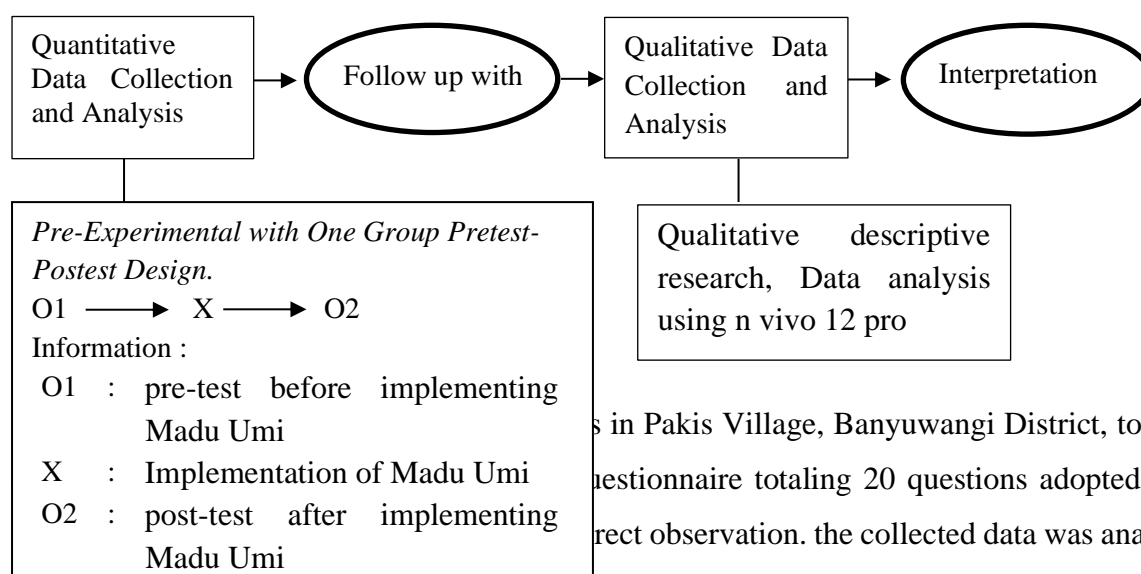
The increase in high-risk pregnancies can result in maternal death (Ratnaningtyas et al., 2023). Pregnant women have a 2.9 times higher risk of experiencing complications during childbirth (Agustini & Sulistyaningsih, 2022). The impact of high-risk pregnancies on

pregnancy is abortion, Intra Uterine Fetal Death, and causes pain, disability and even death, during childbirth, including obstructed labor, bleeding, and even death (Susanti, 2020) and in newborns, namely premature, LBW or overweight and death (Utama, 2021). High-risk pregnancies can be minimized and handled properly if the signs are detected early (Pontoh, 2018). Research results (Triana et al., 2023) state that one of the efforts made for early detection of high-risk pregnancies with standardized ANC using 10T. When having a large population and a large area, and using an inactive traditional information system, Village midwives face difficulties in identifying high pregnancy risks effectively. Involving community activities, especially the role of Cadres, in the discovery and early recognition of high pregnancy risk factors can allow for faster detection and timely referral to midwives for appropriate care (Mustofa, 2020).

Pakis Village has a service innovation program called Madu Umi (Community Care for High-Risk Pregnant Women). The program is a solution to the provision of services by cadres starting from prospective brides, women of childbearing age who are late in menstruating and to pregnant women, especially high-risk pregnant women with a ball-picking model. Cadres visit the homes of pregnant women to conduct data collection and early detection of high-risk pregnancies and make referrals so that their pregnancies remain under control until delivery.

METHODS

This research uses a mixed methods method, with an Explanatory Sequential Design approach. Quantitative design was used to explore data on the knowledge and skills of cadres in early detection of high-risk pregnancies and qualitative design to explore more deeply the implementation and obstacles of cadres in conducting early detection of high-risk pregnancies. Explanatory Sequential Design can be described as follows:

Pre-Experimental with One Group Pretest-Postest Design.

O1 $\longrightarrow$ X $\longrightarrow$ O2

Information :

O1 : pre-test before implementing Madu Umi

X : Implementation of Madu Umi

O2 : post-test after implementing Madu Umi

Qualitative descriptive research, Data analysis using n vivo 12 pro

...s in Pakis Village, Banyuwangi District, totaling ...uestionnaire totaling 20 questions adopted from ...rect observation. the collected data was analyzed

by previously conducting a data normality test and obtained data that was not normally distributed so that the data analysis used the Wilcoxon test. Participants in this study were obtained from the results of quantitative research with purposive sampling techniques, where informants were selected based on specific characteristics relevant to the research objectives to be able to provide answers to research questions. The informants in this study were pregnant women, cadres, PKK leaders and regional midwives. The interviews were conducted in a semi-structured manner. The data analysis of this study used a qualitative analysis technique model by Miles and Huberman. The stages of analysis are: Data collection, data reduction, data presentation. Data analysis used thematic analysis

RESULTS

This research uses a mixed methods method, with an Explanatory Sequential Design approach.

Table 1. Quantitative Respondent Characteristics

Characteristic	Frequency	%
Education		
Low	13	27
Intermediate	30	63
Tall	5	10
Work		
Not Working	41	86
Working	7	14
Get Information		
Ever	33	69
Never	15	31
Resources		
Midvife	30	62
Internet	9	18
Never	9	18
Have Carried Out Early Detection		
Ever	34	71
Never	14	29

Source : Primary Data, 2024

Based on the table above, it can be seen that the majority of respondents' education is secondary (SMP-SMA), and almost all of them are housewives with the majority having received previous information about high-risk pregnancies from midwives and having carried out early detection of high-risk pregnant women

Table 2. Respondent characteristics are based on age and length of time as a cadre

Characteristic	Mean	Min	Max
Age	39,60	25	67
Long time as a cadre	72,56	2 month	468 month

Source : Primary Data, 2024

From table 2 it can be seen that the youngest respondent is 25 years old and the oldest is 67 years old, with the average age of respondents being 39 years and the average length of time

respondents have been cadres is 72 months or 6 years. The most respondent has been a cadre is 2 months and the oldest cadre is 468 months or 39 years.

Table 3. Characteristics Participants

Code	Age (Year)	Education	Work	Years of Service	Parity	KSPR Score	Risk Group
IH 1	40	Bachelor	Teacher	-	G3P2A0	14	KSRT
IH 2	20	Junior High School	Housewife	-	G1P0A0	10	KRT
IH 3	27	Senior High School	Housewife	-	G2P0A1	6	KRT
IH 4	37	Elementary School	Housewife	-	G3P2A0	6	KRT
IH 5	40	Bachelor	Housewife	-	G5P4A0	10	KRT
KK 1	28	Senior High School	working	2 month	-	-	-
KK 2	40	Junior High School	Housewife	5 year	-	-	-
KK 3	41	Junior High School	Housewife	2 year	-	-	-
KK 4	37	Senior High School	Housewife	4 year	-	-	-
KK 5	53	Junior High School	Housewife	20 year	-	-	-
BW	29	Diploma-3	Midwife	2 year	-	-	-
PKK	48	Bacchelor of Midwifery	Midwife	5 year	-	-	-

Source : Primary Data, 2024

Information :

KSPR : Poedji Rochjati Scorecard

KSRT : Very High Risk Pregnancy

KRT   : High Risk Pregnancy

Based on table 3 shows 5 main informants, namely cadres, 5 additional informants, namely pregnant women with a classification of 4 high-risk pregnant women and 1 pregnant woman who experienced a very high-risk pregnancy and 2 key informants, namely the regional midwife and the PKK chair who met the inclusion criteria.

Table 4. Normality and Homogeneity test

Indicator	Normalitas		Homogenitas
	Sig.	Information	
Knowledge			
Pre test	0,000 < 0,05	Abnormal	0,230
Post test	0,000 < 0,05	Abnormal	(Homogen)
Skills			
Pre test	0,000 < 0,05	Abnormal	0,373
Post test	0,000 < 0,05	Abnormal	(Homogen)

Source : Primary Data, 2024

From table 4 it can be seen that the data normality test using Saphiro Wilk showed that the significant pre and post test value of cadre knowledge and skills was $0.000 < 0.05$, the data was not normally distributed, so data analysis used the Wilcoxon test. The homogeneity test using the Levene test shows that the knowledge, skills and attitude values are $> sig (0.05)$, so the data is homogeneous, which means that the sample data studied has the same variance.

Table 6 Analysis of Knowledge and Skills of Cadres

Variabel	Mean	Median	SD	Min-Max	P-Value
Knowledge					

Before	91,25	95	9,14	65-100	0,077
After	94,58	95	5,99	75-100	
Skills					
Before	31,54	33	25,28	0-100	0,000
After	80,42	83	22,62	0-100	

Source : Primary Data, 2024

Based on table 5 the Wilcoxon test shows there is no significant difference in cadres' knowledge before and after the implementation of Madu Umi. Meanwhile, in the skills of cadres there are significant differences before and after being given the implementation of Madu Umi with a significant value of 0.000 < 0.05.

Qualitative research was carried out at the Pakis Village Hall, Poskesdes and home visits to high-risk pregnant women. After carrying out analysis using Invivo 12 Plus, 6 themes were obtained, namely understanding, skills development, coordination mechanisms, benefits of training, role of cadres, communication barriers and barriers to understanding.

1. **Understanding Theme**

   The understanding theme describes the understanding of health cadres after the implementation training of Madu Umi. Qualitative data shows several sub-themes obtained, namely 1) reflection of understanding of Madu Umi and 2) understanding of assessment.

   "......yes, I understand that pregnant women are at high risk in terms of age, and the number of pregnancies the mother has had, for example, she has had many children, and she is also obese or overweight......" (KK 1-28 years).

   "....My understanding is with what Madu Umi said yesterday, detecting pregnant women at risk makes it easier for us, so we know the problem from the score we get, that's what it's like ma'am..." (KK 2 - 40 years old).

   In addition to cadres, understanding of pregnancy risk factors was also obtained from pregnant women according to the following quote:

   "...... yes, the risk is moderate because 1. Obesity and the second one was a miscarriage yesterday so that's also a risk...." (IH 3 - 27 years old)

   "...... the high risk is caused by age factors and it's already the 5th child....." (IH 5 - 40 years old)

   The sub-theme of understanding assessment or scoring describes the understanding of cadres in conducting early detection of high-risk pregnancies in pregnant women using the Poedji Rochjati Score Card (KSPR). Cadres conduct assessments, give scores, add up the scores obtained, classify risk factors, how to handle them, who the birth attendant is and the referral location. The cadres' understanding of assessment or scoring is described in the following quotes :

"Yes, I first see which ones are high risk, we see the ones like the mother earlier, right like this, the score results are like this, meaning 6-10 means the risk is high risk. Then look for this like here....." (KK 2 - 40 years old)

"Yes ma'am, your score was 6 ma'am. This does not mean that the pregnancy is high risk, the treatment is by a doctor or midwife, the referral is by a midwife at the health center, the place of delivery is at the polindes, and the midwife and the doctor are the ones helping." (KK 5 - 53 years old)

2. **Skill Development Theme**

In the skill development theme, there is one subtheme, namely the development of special skills for cadres. The skill development theme describes that cadres better understand and are able to carry out early detection of high-risk pregnant women as conveyed by the following participants:

"Yes, God willing, I understand more, after practicing and meeting pregnant women at risk" (KK 2 - 40 years old)

"Alhamdulillah everything went smoothly without any obstacles, ma'am because we are also used to it" (KK 3 - 41 years old)

The regional midwife also felt that the cadres experienced development in their skills in conducting early detection of high-risk pregnancies as described below:

".....so now my friends, if there are new pregnant women, they can detect it early and be more responsive, and now they are also smarter, hehehe......(BW - 29 years old,).

3. *Coordination Mechanism Theme*

The coordination mechanism theme has one subtheme, namely communication. This theme describes how pregnant women communicate with cadres as in the following excerpt:

"Consultation with cadres then directed to the health center, initially to the first health facility then there I asked, coincidentally my relative is also a cadre then directed to the health center to get a pink book after that so lab tests and so on given iron tablets....." (IH 1 - 40 years)

The coordination mechanism was also conveyed by cadres after conducting early detection of high-risk pregnancies in pregnant women. The majority of cadres said that after finding high-risk pregnant women, they were directed to the regional midwife and then to the health center or hospital, as participant KK 5 shared her experience as follows:

"Directed to the regional midwife first then directed to the health center or hospital to be examined, because she has a high risk" (KK 5 - 53 years)

4. **Training Benefits Theme**

The training benefits subtheme describes the benefits obtained by informants when participating in the training for 2 meetings. The benefits obtained include increased insight, understanding of high-risk pregnancy detection and how to accompany pregnant women as conveyed by 5 participants as follows:

"Yes ma'am, there is additional insight, which initially did not understand then became understood, and initially I did not understand about this matter now I understand....." (KK 1 - 28 years old)

"..... After participating in the training I just learned more ma'am...." (KK 4 - 37 years old)

"Yes, the training increases our insight as cadres so that cadres who cannot understand what KSPR is, how we accompany pregnant women, it's easy, we can understand what we don't understand." (KK 5 - 53 years)

In addition to pregnant women and cadres, regional midwives and PKK leaders also felt the benefits of the implementation of Madu Umi as conveyed below:

"........cadres or RT RW communities are more sensitive to the discovery of new pregnant women because with the discovery of new pregnant women, they are immediately reported to the midwife and it is automatically handled correctly and accompanied by all cadres so that the mother gives birth healthily, the baby is healthy, and the postpartum period is healthy, that's it. The hope is zero deaths, no more maternal and infant deaths". (PKK leader- 48 years old)

"Alhamdulillah, finally cadres know the risk factors for pregnant women.............".(regional midwife - 29 years old)

5. **Cadre role theme**

   The results of the interview showed that the role of cadres includes providing assistance to pregnant women, providing emotional, informational and instrumental support, as conveyed by the cadre below:

   "... once a month the cadre mother comes to the house.." (IH 2 - 20 years old,)

   "... routinely once a month..." (IH 3 - 27 years old and IH 4 - 37 years old)

   ".......yes, the cadre mother often reminded me that I would have a check-up at the health center tomorrow. But I didn't come. Hehehehe so the next day she was picked up and taken to the health center." (IH 1 - 40 years old)

   "....reminding me "it's time for a check-up" was very helpful because maybe her job was also to remind me and then report, to see how far the progress was." (IH 3 - 27 years old)

6. **Barrier Theme**

There are no obstacles in the implementation of Madu Umi from the side of pregnant women, based on the informants' statements:

"Alhamdulillah, there are none, ma'am" (IH 1 - 40 years old, IH 3 - 27 years old and IH 4 - 37 years old)

"Hmmmm what should I say..... none, ma'am. The cadres are good, caring, hehehe...." (IH 2 - 20 years old)

"None, ma'am. The cadres have been very helpful to me, they are also active in visiting my house and always reminding me" (IH 5 - 40 years old)

However, obstacles that arise are felt by the cadres, namely communication and understanding barriers.

"Umm, sometimes I'm still a little confused, but God willing, I'll learn first. But yeah, I'm learning to read first, and then I understand it like that...." (KK 4 - 34 years old)

DISCUSSION

The absence of differences in health cadre knowledge after the implementation of Madu Umi could also be due to the fact that cadres had previously received information about high pregnancy risks from both midwives and other sources of information. Information can be obtained not only through formal education channels in schools, but also through informal education activities such as counseling and training, which can have a positive impact in the short term by increasing the level of understanding (Sari, 2019). In addition to sources of information, the use of learning media also affects knowledge. In this study, the media used was a training module. Budhi's 2020 research showed that Audio Visual (AVA) media was more effective in counseling to increase understanding compared to using modules (Budhi, et al, 2020).

From the findings of this study, it was found that the implementation of Madu Umi did not have a significant effect on the knowledge of cadres, this gives an illustration that training with module media as a means of education for health cadres has not been optimal in increasing the knowledge of health cadres about early detection of high-risk pregnancies. Therefore, other methods besides training are needed to help health cadres understand early detection of high-risk pregnancies more easily. This study found that the implementation of Madu Umi did not have a significant effect on the knowledge of cadres, this gives an illustration that training with module media as a means of education for health cadres has not been optimal in increasing the knowledge of health cadres about early detection of high-risk pregnancies. Therefore, other

methods besides training are needed to help health cadres understand early detection of high-risk pregnancies more easily.

Before the implementation of Madu Umi, the average cadre was not skilled in carrying out early detection of high-risk pregnancies. This is because so far the cadres have never carried out early detection of high-risk pregnancies with KSPR. Detection is carried out by midwives, while most cadres focus on educational efforts by providing counseling and advice related to pregnancy. Only a small number of cadres also visit the homes of pregnant women as facilitators, especially cadres who are part of the Family Assistance Team (TPK) *(Syafitri et al.*, 2023). The training was provided by researchers with support from local midwives. Most health cadres were actively involved in training on how to fill out the KSPR, including in discussions, question and answer sessions, and demonstrations as well as direct practice in carrying out detection on pregnant women in their area.

After the training, there was an increase in the skills of respondents, this shows that the implementation training of Madu Umi can improve the skills of cadres as evidenced by 43 cadres who experienced an increase in skills after the implementation of Madu Umi. Research in Sweden found that after training there was an increase in the skills of service providers in managing postpartum hemorrhage. Service providers feel more prepared when caring for someone and encountering a case of postpartum hemorrhage (Bogren *et al*., 2021). Likewise, health cadres in Pakis Village with training on early detection of high-risk pregnancies will be more capable, ready and confident in detecting or if they encounter cases of pregnant women with high risk. Research in Uganda using simulation-based training found that there was an increase in skills (Williams *et al*., 2019). Research conducted in Germany on simulation training for midwifery students in emergency situations found that students rated their competence significantly better after the survey than before the survey (Vogel *et al*., 2024). Practice sessions are described as necessary to maintain the necessary skills. The abilities possessed by cadres must be broad in order to carry out their duties properly. One of the advantages of using the simulation learning method is that it actively involves students in real situations so that they can develop knowledge, attitudes, skills, and experience.

The results of the interview showed that after the implementation of Madu Umi, cadres understood the high-risk factors for pregnant women such as maternal age, number of children, obesity, high blood pressure, anemia, history of miscarriage and history of CS. Not only did cadres understand the risk factors for pregnancy, pregnant women also knew the risk factors for pregnancy after getting information from the midwife during the pregnancy check-up. This

is supported by the study of Ratnaningtyas et al., (2023) where pregnant women at risk were maternal age (less than 20 and more than 35 years), KEK, parity and hypertension.

The benefits of early detection training for high-risk pregnancies have an impact on increasing the knowledge of cadres regarding early recognition of high-risk pregnancies. The training is effective in providing information about high-risk pregnancies and increasing the knowledge of health cadres (Kurniawan et al., 2023). In line with Ersila W, (2018) who showed an increase in cadre knowledge when implementing high-risk pregnancy detection after attending a class for pregnant women (Ersila W, 2018). Research in Southern Mozambique showed that community health volunteers were already aware of pregnancy complications but had limited knowledge about preeclampsia and eclampsia. Studies are needed to evaluate the impact of training on the identification and management of preeclampsia and eclampsia (Boene *et al.*, 2016). The implementation of Madu Umi can develop psychomotor skills. From the results of the interview, it was found that cadres were able to carry out early detection of high-risk pregnancies with KSPR. Which begins with conducting an assessment on pregnant women, giving scores, adding up the scores obtained, classifying risk factors, how to handle them, who the delivery assistant is and the referral place. This is supported by a study by Hastuti et al., (2018), with training on antenatal screening using KSPR, it is hoped that cadres will be able to carry out risk screening on pregnant women in their respective environments (Hastuti et al., 2018).

The results of interviews with the PKK chairperson and regional midwives obtained the coordination mechanism for the implementation of Madu Umi, namely that mothers who are late in menstruating (suspected of being pregnant) are given a pregnancy test, if the pregnancy test results indicate positive, the cadre will conduct early detection using the Poedjo Rochjati score card. After that, the cadre reports to the regional midwife, then the midwife and cadre visit the pregnant woman's home. The midwife conducts an examination to ensure that the pregnancy is high risk. The midwife records and reports and provides information to the cadre to provide assistance to pregnant women at risk, in accordance with the role of the cadre.

One of the roles of cadres is to provide information support to pregnant women. Information support refers to a description of the conditions and aspects related to the problems experienced by a person. The role of a cadre involves providing emotional support by showing empathy, concern, and attention to someone so that they feel comfortable, appreciated, and cared for when experiencing various life pressures. Emotional support that cadres can provide is by reminding mothers of check-up schedules, taking vitamins, asking about the condition of pregnant women. This is in line with Nurfauzia (2022), where emotional support from health

cadres has been shown to significantly reduce levels of anxiety and depression in high-risk pregnant women . The forms of support provided by cadres include listening to complaints, providing information and providing motivation and encouragement. Then there is also instrumental support, namely concrete assistance provided directly in the form of facilities or materials, including reminding them of check-up schedules and if the pregnant woman cannot attend, the cadre picks her up and takes her to the midwife or health center. This is supported by research by Rahmawati et al., (2022) where the role of health cadres is very crucial in ensuring that high-risk pregnant women get the right care from pregnancy to childbirth (Rahmawati et al., 2022).

The results of interviews with informants showed that the obstacles to the implementation of Madu Umi were only felt by health cadres. The obstacles experienced were communication barriers and understanding barriers. In implementing the implementation of Madu Umi, an effective communication process is needed so that the delivery of information can be understood and received well (Roskina & Haris, 2020). In the context of training, barriers to communication are a very vital problem. The quality of effective training depends on how communication is carried out and practiced during the training process. Obstacles in communication can also have an impact on the overall training atmosphere, and directly affect the quality of both training and training participants in carrying out and participating in training. The results of a study conducted by Kapur, (2022) in India stated that communication barriers are influenced by three main factors, one of which is the environment (Kapur, 2022). When communication occurs between two or more individuals in this area, they need to ensure that the environment is supportive so that communication can run effectively. In addition to communication barriers, this study also found barriers to understanding. Lack of training attended by cadres is the main cause of obstacles in their understanding. In addition, obstacles to understanding are also caused by cadres being afraid to try because they are afraid of making mistakes in detecting. Cadres feel hesitant about the actions taken. The interview results also conveyed that there were cadres who could not understand the material with just one lesson, cadres had to repeat reading to make them understand. In an effort to understand early detection of high-risk pregnancies, cadres need to understand and comprehend the information conveyed, be able to capture the message conveyed, and be able to use the material without having to relate it to another context (Mudjiran, 2021). This is in line with Bobbi DePorter in Quantum Teaching, Veron A Magnesium said that people remember 10% of what they read, 20% of what they hear, 30% of what they see, 50% of what they see and hear, 70% of what they say, and 90% of what they say and do (Bobbi DePorter, 2020). Bobbi DePorter also highlighted

that a pleasant and joyful atmosphere also influences success in the learning process (Mulyasa, 2022). If students feel uncomfortable and burdened when participating in the learning process, they are likely to lose interest in learning and only feel forced to do it.

CONCLUSION

The implementation of Madu Umi significantly improved the skills of cadres in detecting high-risk pregnant women, but did not significantly improve the knowledge of cadres. The implementation of Madu Umi has been going well, the benefits of training are increasing cadre knowledge, developing psychomotor skills, cadres also know their roles and the coordination mechanism for the results of detecting high-risk pregnant women. The obstacles that occur during implementation are communication barriers and cadre understanding.

ETHICS OF STUDY

This research was tested ethically by the ethics commission of Universitas 'Aisyiyah Yogyakarta with ethics number 3809/KEP-UNISA/VII/2024 dated July 3, 2024, which stated that the research was feasible to be carried out.

CONFLICT OF INTEREST

The researcher has no personal or institutional conflicts of interest that might be deemed to inappropriately influence the representation or interpretation of reported research results.

AUTHOR'S CONTRIBUTION

Making proposals, instruments, managing ethical clearance, permits, data collection, data processing and analysis, reporting results, results seminars, publications and compiling outputs by IC; S and NZ, guiding the preparation of proposals, data collection audit trails, data analysis,

preparation of reports and manuscripts, modules and publications. IC = Indah Christiana, S = Sulistyaningsih, NZ = Nurdin Zuhdi

CORESPONDENCE

sulistyaningsih@unisayogya.ac.id

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