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RESEARCH ARTICLE

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The Effect of Counseling Intervention of Pregnancy Danger Signs on Cadre Knowledge

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ABSTRACT

Maternal mortality can be caused by late detection of pregnancy danger signs. The role of cadres is to assist health workers in detecting danger signs of pregnancy, provide counseling during pregnancy and carry out referrals to primary health care facilities. The purpose of this study was to analyze the effect of counseling interventions on pregnancy danger signs on cadre knowledge. The design of this study was a pre-experimental study with a one group pre test-post test design. The population of this research was a cadre of high-risk pregnant women in the working area of the Sukosewu Community Health Center as many as 70 people. The sample size of 30 cadres was selected using purposive sampling technique. The independent variable was counseling and the dependent variable was knowledge. Data collection using questionnaires pre test and post test cadre knowledge of danger signs of pregnancy. Intervention counseling with lecture method using audiovisual and props counseling module. Data analysis using Paired Samples T-Test. The results of data analysis showed p-value of 0.000 (there was difference of knowledge between before and after intervention. As conclusion, there was an effect of counseling intervention on pregnancy danger signs on cadre knowledge. Counseling can be used as a method to improve cadres' knowledge about pregnancy danger signs.

Keywords: counseling; pregnancy danger signs; knowledge; cadres

INTRODUCTION

Based on the 2020 Population Census, the Maternal Mortality Rate (MMR) in Indonesia is 189/100,000 live births. The MMR in Bojonegoro Regency in 2020 was 168.8/100,000 live births. The MMR at Sukosewu Community Health Center in 2018 was 2 people (366.97/100,000 live births), in 2019 was 1 person (169.49/100,000 live births) and in 2020 was 2 people (370.37/100,000 live births). There is a problem of high MMR at Sukosewu Community Health Center during 2018-2020 compared to the Sustainable Development Goals (SDGs) target of 70/100,000 live births.⁽¹⁾

The causes of maternal mortality consist of direct and indirect causes. The direct causes consisted of hemorrhage, eclampsia and infection. The indirect causes were 3 late, namely late early detection of pregnancy danger signs and decision making, late reaching health care facilities, late receiving health services, while the four too were too old to get pregnant (>35 years), too young to get pregnant (<20 years), too many (number of children >4), and too close (distance between births <2 years).⁽²⁻⁴⁾

A cadre is a person chosen by the community and trained to deal with individual or community health problems and work in close proximity to health services. The role of cadres is to assist health workers in detecting pregnancy danger signs, provide counseling during pregnancy and carry out referrals to primary health care facilities.⁽⁵⁾

Knowledge is the result of human sensing, or the result of someone knowing objects through their senses (eyes, nose, ears and so on). Internal factors that influence knowledge are:

- 1) Education (Education can influence knowledge as well as behavior, especially in motivating people to participate in development).
- 2) Jobs (Work is a repetitive and challenging way of earning a living. A person who works will gain experience and knowledge).

- 3) Age (The more age, the level of maturity and strength of a person will be more mature and think and work).
- 4) Personal experience (Personal experience can be used to gain knowledge. This is done by repeating the experiences gained in solving problems faced in the past).

Internal factors that influence knowledge are:

- 1) Counseling (Counseling is an activity carried out using the principle of learning so that people get changes in knowledge and willingness, both to achieve the desired living conditions or to get ways to achieve these conditions individually or together. Types of counseling consist of individual counseling and group counseling).
- 2) Environment (The environment is all the conditions that exist around humans that can affect the development of the behavior of people or groups).
- 3) Social culture (The socio-cultural system that exists in society can influence the receipt of information, thus affecting a person's knowledge).^(6,7)

Pregnancy danger signs are danger signs in pregnant women that indicate the possibility of danger in pregnancy that can adversely affect the health of pregnant women and fetuses. Types of pregnancy danger signs are:

- 1) Excessive nausea and vomiting.
Excessive nausea and vomiting in pregnant women can interfere with daily work because the general condition becomes poor, due to dehydration which is a sign of hyperemesis gravidarum. Often occurs in primigravida, grape pregnancy (mola hydatidosa), diabetes, and multiple pregnancy (gemeli).
- 2) Bleeding in early stage pregnancy
In the early stages of pregnancy, you may experience some light bleeding or spotting around the time of your first missed period. This bleeding is implantation bleeding, and is normal. In early pregnancy, abnormal bleeding is heavy red bleeding, or bleeding with abdominal pain. This bleeding can mean miscarriage (abortion), grape pregnancy / molar pregnancy (mola hydatidosa) or pregnancy outside the womb (ectopic pregnancy).
- 3) High fever
Pregnant women suffering from fever with body temperature $>38^{\circ}\text{C}$ in pregnancy is a problem. High fever is a symptom of infection in pregnancy. Fever can be caused by infection in pregnancy, namely the entry of pathogenic microorganisms / bacteria into the body of a pregnant woman which then causes signs or symptoms of the disease. In severe infections, fever and impaired function of vital organs may occur. Infections can occur during pregnancy, labor and the postpartum period.
- 4) Edema of the feet, hands and face
Edema is the generalized and excessive accumulation of fluid in body tissues and can usually be recognized by an increase in body weight and swelling of the feet, fingers and face. Pre-tibia edema is often found but is not a clinical criterion for the diagnosis of pre-eclampsia. An increase in weight of 0.5 kg/week is still normal, but if the increase is 1 kg/week, it is necessary to be aware of pre-eclampsia. Almost half of pregnant women will experience normal swelling of the legs which usually appears in the afternoon and usually disappears after resting/elevating the legs. Edema can indicate a serious problem if it appears on the face and hands, does not disappear after rest, followed by other physical complaints. This may be a sign of anemia, heart failure, preeclampsia.
- 5) Headache, blurred vision with seizures
Headaches that indicate a serious problem are severe headaches that persist and do not go away with rest. Sometimes this causes the mother's vision to become blurred. A severe headache in pregnancy is a symptom of Preeclampsia. Eclampsia is preeclampsia accompanied by seizures.
- 6) Less mobile fetus
Pregnant mothers begin to feel their baby's movements during the 5th or 6th month, some mothers can feel their baby's movements earlier. If the baby is sleeping, the movements will weaken. The baby should move at least 3 times in a 3-hour period. The baby's movements will be more easily felt if the mother is lying down or resting. The fetus rarely or not moving can also indicate a dangerous condition, such as the fetus lacks oxygen, for example because it is wrapped around the umbilical cord. If not treated immediately, fetal distress can occur. Reduced oxygen flow to the fetus can cause stunted fetal growth, and the fetus dies in the womb.
- 7) Severe abdominal pain
Abdominal pain that may indicate a life-threatening problem is severe, persistent and does not go away after resting. This could mean appendicitis, ectopic pregnancy, abortion, pelvic inflammatory disease, preterm labor, gastritis, gallbladder disease, placental abruption, and urinary tract infection.
- 8) Bleeding in late pregnancy
In late pregnancy, abnormal bleeding is red, profuse, and sometimes, but not always accompanied by pain. This bleeding could mean placenta previa (placenta partially or completely covering the birth canal) or placental abruption (detachment of the placenta from the uterine).
- 9) Premature rupture of membrane

The breaking of the membranes before there are signs of labor and waiting one hour before the onset of signs of labor is called premature rupture of membrane. Premature rupture of membranes causes a direct connection between the outside world and the inside of the womb, facilitating infection^(8,9,10).

The purpose of this study was to analyze the effect of counseling interventions of pregnancy danger signs on cadre knowledge.

METHODS

This type of research was a pre experimental research with one group pre test-post test design. This study had received a certificate of ethical feasibility from the Ethics Commission of the Health Polytechnic of the Ministry of Health Surabaya. This research was conducted at the Sukosewu Community Health Center, Bojonegoro, Indonesia from May to August 2023. The study population was 70 cadres of high-risk pregnant women in the Sukosewu Community Health Center working area. A sample size of 30 cadres was selected using purposive sampling technique.

The independent variable was counseling and the dependent variable was knowledge. Data were collected using pre-test and post-test questionnaires on cadres' knowledge of pregnancy danger signs. Intervention counseling with lecture method using audiovisual and props counseling module. Data analysis using Paired samples t test.

RESULTS

Table 1 shows that most respondents were 36-40 years old, had a high school education and worked as housewives. Table 2 shows that there was an increase in the minimum value, maximum value, and mean of the pre-test and post-test scores.

Table 1. Respondent characteristics

No.	Characteristics	Category	Frequency	Percentage
1	Age	25-30 years old	3	10.0
		31-35 years old	7	23.3
		36-40 years old	8	26.7
		41-45 years old	7	23.3
		46-50 years old	4	13.3
		51-55 years old	1	3.3
2	Education	Elementary school	1	3.3
		Middle high school	11	36.7
		High school	15	50.0
		Bachelor	3	10
3	Jobs	Private employee	2	6.7
		Self-employed	3	10.0
		Housewife	25	83.3

Table 2. Minimum, maximum, mean, and standard deviation of pre test and post test knowledge of cadres

No.	Value	Pre test score	Post test score
1	Minimum	48	72
2	Maximum	72	100
3	Mean	60.93	86.40
4	Standard deviation	6.275	7.903

Table 3. Normality Test Results

No.	Shapiro-Wilk test	p
1	Pre Test	0,214
2	Post Test	0,116

The normality test uses the Shapiro-Wilk test because the number of samples was less than 50. Table 3 shows that the pretest score data was normally distributed with a p value = 0.214 (p>0.05), the post test score data was normally distributed with a p value = 0.116 (p>0.05).

Based on the normality test, it was known that the pre-test and post-test data were normally distributed so that the hypothesis test meets the Paired Samples T-Test requirements. Table 4 shows that there is a significant difference in the average pre-test and post-test scores with a value of $p=0.000$ ($p<0.05$), which means that there is an effect of counseling intervention on pregnancy danger signs on cadre knowledge.

Table 4. Paired Samples T-Test results

Intervention	n	Mean	Std. Deviation	p
Pre Test	30	60.93	6.275	0.000
Post Test	30	86.40	7.903	

DISCUSSION

Counseling interventions can improve cadres' knowledge of pregnancy danger signs. Counseling with the lecture method provides an opportunity for extension workers to explain the material directly to participants and interact directly with participants through questions and answers. Participants can ask questions to the extension worker if there is material that has not been understood. The use of audiovisuals can stimulate hearing and vision so that participants pay attention to the material provided. The use of module props given to participants can increase understanding of the material provided by studying the module. The results of this study are in accordance with the research of Qomariah S, Salmiati⁽¹¹⁾, Widyastuti & Hapsari⁽¹²⁾, Astuti, et al⁽¹³⁾, and Yuhandini, et al.⁽¹⁴⁾ which state that there is an effect of counselling on knowledge.

Education level consists of primary, secondary and tertiary education.⁽¹⁵⁾ The characteristics of cadre education show that most cadres have a secondary education. A person who has a secondary education has a systematic mindset so that it is easy to understand the explanation given by the health worker. Characteristics of cadre employment showed that most cadres worked as housewives. Housewives have enough time to attend counseling so that cadres pay more attention to the material provided.

The mean value of the post test increased compared to the mean of the pre-test, indicating that cadres were eager to complete the pre-test and post-test because the counseling material was the material needed by cadres in carrying out their role. Cadres are elected by the community and play a voluntary role in improving the health status of the surrounding community. The role of cadres is to assist health workers in detecting pregnancy danger signs, providing counseling during pregnancy and carrying out referrals to primary health care facilities.

CONCLUSION

Counseling can be used as a method to improve cadres' knowledge of pregnancy danger signs. Cadres who understand pregnancy danger signs can detect early pregnancy danger signs and can refer pregnant women to primary health care facilities. Health workers are expected to increase health promotion, especially about pregnancy danger signs to pregnant women, families and communities. Future researchers can examine other factors that influence knowledge, namely personal experience, environment, and socio-cultural factors.

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