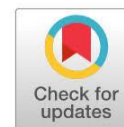


Enhancing pregnant women knowledge through health education about high-risk pregnancy



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ABSTRACT

The cause of maternal death globally is still dominated by hemorrhage (27%), companion diseases (28%), and hypertension during pregnancy especially eclampsia (14%). Maternal mortality rates can be reduced by increasing awareness through health education during pregnancy and rapid decision making by recognizing the danger signs of a high-risk pregnancy. This study's purpose was to analyze the influence of health education to increase the knowledge of pregnant women about a high-risk pregnancy. This study was a quasi-experimental research with a pretest-posttest design. The sample was taken using a purposive sampling technique with 60 respondents who met the inclusion criteria. Data was taken in 2017 in Cilongok II Public Health Center, Banyumas. The Instrument of this study was a questionnaire about a high-risk pregnancy and the intervention providing health education given by booklets. The data were analyzed using the Wilcoxon test. This study was showing that most respondent's awareness of high-risk pregnancy before given health education was in the decent category (55%), after being given health education to increase to good knowledge (65 %). There was a difference in the level of knowledge before and after the health education was given (p-value=0.000). There was an increase in maternal knowledge about high-risk pregnancy after being given health education.

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INTRODUCTION

One of the global goals that will be achieved through the Sustainable Development Goals (SDGs) is to ensure a healthy life and support welfare for all ages. Which one of the targets is to reduce the maternal mortality ratio (MMR) to less than 70 per 100,000 births in 2030.(1) From 2000 to 2017, the global maternal mortality ratio declined 38% (from 342 deaths to 211 deaths per 100,000 live births). The average annual MMR reduction rate reached 2.9%, but it is still a far expectation by SDG's which is 6.4% per year. The number of MMR reduction in East Asia and the Pacific also just reached 2.9 (2) The MMR in Indonesia remains high. In 2007, the MMR is 228 maternal mortality in 100,000 live births. Meanwhile, in 2012, The maternal mortality rate increased to 359 maternal mortality in 100,000 live births. This is in contrast to the goal of MMR in 2015 which targeted the number



of 102 maternal mortality in 100,000 live births.(3) Central Java as one of the nine provinces in Indonesia contributing to the highest MMR in Indonesia. The MMR in Central Java has declined since 2014, which was 126.55 in 100,000 live births. In 2015, the rate was 111.6 in 100,000 live births, and in 2016 were 109.65 in 100,000 live births (4) but this reduction rate is less significant to achieve the expected results.

The cause of maternal death globally is still dominated by hemorrhage (27%), previous comorbidities worsened with pregnancy (28%), hypertension during pregnancy especially eclampsia (14%), sepsis (11%), abortion especially unsafe abortion (11%), direct causes include obstructed labor or anemia (10%), and embolism (3%).(2)(5) However, many maternal deaths can be prevented if appropriate action is taken early and promptly. The presence of trained and qualified health workers has adequate equipment and supplies and can refer women promptly to emergency obstetric care when and high risks complications are diagnosed also have an important role in reducing MMR.(2)(6) Besides, rapid decision making by mother and their families can prevent emergencies caused by the three delays; delay to decide to seek care, delay to reach the place of care and delay in receiving appropriate and adequate care.(7)

A high number of high-risk pregnancy needs proper care, one of which is to providing education about a high-risk pregnancy and the right action if someone experiences it. Health education is done to influence people, whether it is individual and society to maintain and increase their health. The education that is delivered by health workers helps the mother to monitor the growth and health during pregnancy. The information given by the health workers to mothers with a high-risk pregnancy is by doing routine checks through the pregnancy and educate the mother about the delivery plan.(8) The importance of pregnant women having enough knowledge about early detection of pregnancy one of which is that pregnancy of women can take appropriate action after the experience of danger signs during pregnancy(6)(9). Various studies on education regarding high-risk pregnancies have been carried out, but not enough to reduce maternal mortality according to the SDGs.(9)(10)(11)(12) In this study, researchers provided counseling interventions regarding high-risk pregnancies during ANC. so that knowledge can be increased to make decisions quickly in case of complications due to a high-risk pregnancy. This study aims to increase the knowledge of pregnant women about a high-risk pregnancy.

METHOD

This study was a quasi-experimental research with a pretest-posttest design. The variable in this study consisted of the dependent and independent variables, the dependent variable was the provision of health education about early detection of a high-risk pregnancy with the media booklet and the independent variable was an increase in knowledge about a high-risk pregnancy. The population of this research is 396 pregnant women in Cilongok II Public Health Center (PHC) within a year in 2017. The sample was taken using a purposive sampling technique with 60 respondents who met the inclusion criteria. Data collection began with a research permit addressed to the Head Office and Research and Development of Human Resources in Banyumas Regency, continued to the Banyumas Health Office and the in Cilongok II PHC. The method of collect data in this study is to use a questionnaire. The measuring instrument used was a questionnaire listing questions of knowledge about high-risk pregnancy that had been well structured and mature in which respondents gave answers by giving a sign. The results of measuring knowledge are categorized into 3: good knowledge if the value is 76% - 100%, knowledge is sufficient if the value is 56% - 75%, and knowledge is less if the value <56%. Hypothesis testing in this study with bivariate analysis is using the t-test if the data is normally distributed and the Wilcoxon test if the data is not normally distributed. Then to make a difference between before and after the intervention given by researchers who previously tested the normality of data with the Kolmogorov-Smirnov test.

RESULTS

Characteristics of respondents based on age in this study were mostly in the age group of 20-35 years (80%), the highest level of education in junior high school education was 46.7% and most mothers' occupations were housewives by 80%.

Tabel 1. Frequency distribution of respondents' enhancing the pregnant women knowledge through education about high-risk pregnancy

No	Variable	Information	
		n	%
1.	Age group		
	< 20 years old	3	5
	20-35 years old	48	80
	>35 years old	9	15
2.	Education Level		
	Primary school	14	23,3
	Junior high school	28	46,7
	Senior high school	14	23,3
	College Graduate	4	6,7
3.	Occupation status		
	Housewife	50	80
	Entrepreneur	5	10
	Others	5	10
4.	The knowledge before health education		
	Good	17	28,3
	Decent	33	55
	Deficient	10	16,7
5	Knowledge after being given health education		
	Good		
	Decent	39	65
	Deficient	20	33,3
		1	1,7
	Total	60	100

Based on the results of the univariate analysis in Table 1, it was obtained the knowledge of respondents before being given health education about high-risk pregnancy in the moderate category by 55%.

Tabel 2. Mean different before and after being given health education

	N	Mean	Std. Devices	Min	Max
Before treatment	60	17,48	3,154	10	23
After treatment	60	19,98	2,658	13	24

Table 2 shows that the average knowledge before being treated is 17.48, whilst the average knowledge after being treated is 19.98. Meanwhile, the output results in the Ranks column shows:

Tabel 3. Result of Wilcoxon Test

	N	Mean Rank	Sum of Ranks	Z	p-value
Before treatment	Negative ranks	1 ^a	23.00		
After treatment	Positive ranks	57 ^b	29.61	-6.520 ^a	0.000
	Ties	2 ^c			
	Total	60			

^aafter treatment < Before treatment

^bAfter treatment > Before treatment

^cAfter treatment = Before treatment

From table 3, we can conclude that can be drawn is there is a significant difference for the pregnant woman after being given health education about high-risk pregnancy than before being given the knowledge.

DISCUSSION

Pregnant women characteristic based on age

The respondent characteristic based on age is mostly the group of 20-35 years old (80%), This age shows that some pregnant women in their productive age. A significant relationship was found that the age of the respondents was associated with danger signs of pregnancy. Research results in rural areas of Tanzania and South Africa found increased awareness among older and multiparous women. They may be more aware of danger signs either from their own experiences or from events in their community. Besides, the willingness to learn in early adulthood is still high and the curiosity is large so that when there is the latest information, the adult age is easier to accept(13).

The results of the study are supported by the theory of the results stated that age influences a person's level of knowledge. A more mature person will have a variety of experiences. Those add knowledge about a certain thing. Besides, age will also influence a person comprehended level and mindset, a person grows older the ability to comprehend and the mindset will develop as well, and it will add more knowledge to him/her.

Pregnant women characteristic based on the education level

The research result shows that most of the respondent education level is junior high school graduates, namely 46, 7%. The findings of this study are clarified by the results of previous studies of mothers who have a higher education know the MCH book that includes a broader danger sign than mothers who have low education (14). In line to the research result that women who graduated from secondary school or even higher, have six times chance to detect early signs of pregnancy(15)

Education is needed to gain information, for example, things that support the health aspect to develop the quality of life. There were many studies done that found that educated women have better pregnancy outcomes compared with uneducated women and that education during the antenatal period can reduce pregnancy and delivery complications (8). The people with higher education will ease health workers to give them health information.

When the complication happens during pregnancy, the education level of the mother will also influence decision making. The understanding of high-risk pregnancy corresponds to the level of formal education of the mother. This decent understanding will make good communication between the mother and the service provider(16). Hence, the higher chance for them to get more information about a high-risk pregnancy.

Pregnant women characteristic based on occupation status

The research result shows that the occupation of the most respondent is housewives, namely 80%. This condition describes that most respondents do their job at home as housewives. The type of occupation that most respondents have is housewives and junior high school graduates. Nevertheless, after being informed about health through health education, they can comprehend the information well. This is because the respondents who work will put their work first before the information about a high-risk pregnancy. In line with the opinion of previous research about pregnant women as housewives, the information factor increases knowledge about danger signs of pregnancy (17). Mother occupation status is one of the factors that influence the utilization of the Antenatal Care Service. In contrast to the research done by Simkhada 2008 and Kabir 2005 stated that working women get ANC service more than women who do not; In fact, housewives are more likely to get ANC service and join pregnancy class(18)(19). On the

contrary, research done in India showed that ANC service is more utilized by housewives than working mothers (20).

The level of knowledge about high-risk pregnancy before being given health education

The findings of this study indicate that knowledge of high-risk assessment in the medium category is 55%. This finding is different from other studies in Tanzania that cite knowledge about danger signs in pregnant women in rural areas is still low, only 26% of women experience difficulty warning signs during pregnancy (6). Spontaneous is "Age 20 to 35 years is the right age and safe for mothers to get pregnant" which is very different from previous findings relating to pregnant women who spontaneously associated with vaginal bleeding is a high-risk pregnancy condition. Although similar in rural areas, the differences in findings in this study involved pregnant women who participated in classes of pregnant women held at the Cilongok II PHC so that they were exposed to educational education that resulted in high risk. Supported by findings that announce pregnant women who take classes more than 2 times pregnant women have good knowledge of the danger signs of 87%. The more mothers get information, it will increase the curiosity of mothers about danger signs and increase maternal knowledge about danger signs of pregnancy (21).

In a constructivist view, knowledge grows and develops through experiences and will be stronger and deeper if it is challenged by new experiences. Based on researcher analysis, respondents who have lesser knowledge are caused by less exposure to information they get. It was because the respondent got less exposure to health education or health counseling, especially pregnancy class as a learning tool to discuss pregnancy, especially high-risk pregnancy.

The knowledge of pregnant women about high-risk pregnancy, after and before being given health education

The hypothesis result using Wilcoxon shows that the p-value is 0.000 (<0.05), this determines that there is a significant difference between pregnant women before and after being informed about a high-risk pregnancy. The finding is in line to research results that the intervention when health education is given affects pregnant women's access to gain health information. Decent knowledge is likely to get pregnant women to check their pregnancy condition^s (10).

The findings of this study found that respondents' knowledge was very good after providing health education about setting the age of fewer than 20 years and more than 35 years was the age included in the risk factors and maternal and/or fetal death by 92% of respondents answered correctly, and a good distance assessment was 2-4 years by 88% of respondents answered correctly. In line with previous research on a person, he considered having sufficient knowledge if he was able to spontaneously mention more than nine danger signs of pregnancy (22).

Health education about high-risk pregnancy in Cilongok 2nd Public Health Care uses booklet media. The respondents respond well to this instrument, as it was seen on the enhancement of the post-test score. This shows that health education adds more knowledge and capability with learning practice. As the purpose of it is to change society to be independent at healthy living (3). Understanding means an ability to answer and explain well about a certain object and to interpret a lesson well (23). Health education material that has been delivered will be an application meaning that they can use the material that has been learned at actual conditions and situations. Health education is an intense factor to empower society and to afford health information tools. Obstetricians and midwives need to increase the time dedicated to providing information about these very important topics for the health of women and unborn children (24).

CONCLUSION

There is a significant difference for a pregnant woman after being given health education. Suggestions for obtaining policies based on the findings in this study about education effectively increase the knowledge of pregnant women. Although it has been routinely informed in the class of pregnant women not all pregnant women in the working area of the in Cilongok 2nd Public health Care come to attend the class, it is necessary to conduct regular health education for every pregnant woman who wishes to conceive.

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