The independence of pregnant women in early detection of high risk of pregnancy in terms of parity, knowledge and information exposure

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Abstract

The ability of pregnant women to detect early of a high risk pregnancy is still below the average which is one of the causes of complications that can endanger the well-being of the mother and fetus. The purpose of this study is to determine the relationship between factors of parity, knowledge and exposure to information on the independence of mothers in early detection of the risk of pregnancy. This type of analytic observational research uses a cross sectional design. A total sample of 125 pregnant women was chosen by "Stratified Random Sampling" technique. The results of Multiple Logistic Regression Analysis show that the knowledge variable Exp (B) 6.657 is a significant variable, the exposure to danger information variable Exp (B) 7.657 is a significant variable and the parity variable Exp (B) 8.060 is also a significant variable. Midwives and health workers further increase counseling so that pregnant women and families can receive more information about the danger signs of pregnancy, especially the high risk of pregnancy and being able to do early detection.

Introduction

Pregnancy and childbirth are physiological processes experienced by a woman, but there are times when they have a risky condition.[1] The ability of pregnant women to detect early high risk is still below the average which is one of the causes of complications that can endanger the well-being of the mother and fetus.[2] This is due to the fact that the family, which is the smallest unit of the community and the people closest to the pregnant woman, is less empowered to be able to help to recognize the presence of danger signs or problems that are experienced, and participate in taking care during pregnancy.[3]

Early detection of pregnancy can be used as an effort to prevent pregnancy at high risk for pregnant women. Risk is an undesirable emergency condition in the future, namely the prediction of complications that can cause death or pain in the mother and baby where the life of the mother or baby can be threatened before and after labor.[4]

Surabaya City is the highest city in East Java with pregnant women experiencing obstetric complications amounted to 9,496 out of 47,480 pregnant women in 2016 (East Java Provincial Health Office, 2017).[5] The number of high-risk pregnant women from 2015 to 2017 has increased, in 2015 amounted to 17,656 pregnant women, in 2016 amounted to 17,928 pregnant women, and in 2017 amounted to 19,698 pregnant women (Surabaya City Health Office, 2018).[6] Early detection of the high risk pregnancy by the community is expected to be 80%, but its achievement in the last 3 years is far from what is being targeted. Early detection of risk factors for complications is an activity to find pregnant women with risk factors and obstetric complications.[7] Every pregnancy is a normal experience for a woman in her reproductive process, but sometimes there is a complication so that early detection activities need to be carried out by health workers and the community especially pregnant women so that adequate handling as early as possible can be done. This is the key to success in reducing MMR and IMR.[8]

Some of the factors behind the risky pregnancy are the lack of community participation due to low levels of education and maternal knowledge, low family economic capacity, socio-cultural position, lack of access to health services, and effectiveness of maternal health services is not stable and the management of health services is weak at various levels.[9]

Factors that can affect the ability of mothers to detect early preeclampsia include maternal characteristics such as age, parity, education, employment and knowledge and supporting factors which consist of regular ANC examinations, socio-economic, exposure to information and types of information that have been obtained.

The effort that must be taken is to improve the quality of health services by implementing the Maternity Planning and Complication Prevention Program (P4K). The P4K program is expected to be able to provide good, safe, fast, cheap and efficient health services.[8]

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Materials and Methods

This research was conducted in the Surabaya city. This type of analytic observational research uses a cross sectional design. A Total sample of 125 pregnant women is obtained. The sampling method used is "probability sampling" with the "Stratified Random Sampling" technique. Data collection uses primary data with interview questionnaire instruments. Data analysis with Multiple Logistic Regression

Analysis with a significance level of 5% (α = 0.05).

Results and Discussion

The frequency distribution of pregnant women based on parity on the ability of early detection of high risk pregnancy shows that primipara pregnant women have less early detection abilities while multiparous pregnant women have good early detection abilities. The results of the Chi Square test show 0.015 (<0.05) which means that there is a significant relationship of parity with early detection ability (Table 1). Data that was analyzed using Simple Logistic Regression obtained a significance value of 0.010 (<0.25) so that the exposure to danger information variable can be continued to Multiple Logistic Regression Analysis. Then after being analyzed with Multiple Logistic Regression, it shows that parity has an influence on the ability of early detection of high risk pregnancy with a significant value of 0.033 and the value of Exp (B) 8,060 means that multigravida parity of early detection probability is good 8,060 compared to primipara (Table 2).

The frequency distribution of pregnant women based on their knowledge of the ability of early detection of pregnancy risk shows that pregnant women whose knowledge is less about danger signs have less early detection ability, whereas pregnant women with good knowledge of danger signs have good early detection abilities. In the Chi Square test showed 0.012 (<0.05) means that there is a significant relationship of knowledge with high risk early detection ability. Then analyzed using Simple Logistic Regression showing a significant value of 0.151 (<0.25) so that the knowledge variable can be continued to Multiple Logistic Regression Analysis. Then after being analyzed with Multiple Logistic Regression, it shows that knowledge has an influence on the ability of early detection of high risk pregnancy with a significant value of 0.033 and Exp (B) 6.657 means that pregnant women with good knowledge of danger signs may have good early detection 6.657 times compared to pregnant women who do not know about the danger signs of pregnancy.

The frequency distribution of pregnant women based on information exposure to the ability of early detection of high risk pregnancy shows that pregnant women who are less exposed to information about danger signs have less early detection ability while pregnant women who are exposed to information about danger signs have good early detection ability. The Chi Square test shows 0.046 (<0.05) means that there is a significant relationship of variable exposure to danger information with the variable early detection ability. Then analyzed using Simple Logistic Regression showed a significant value of 0.146 (<0.25) so that the exposure variable of the danger information can be continued to Multiple Logistic Regression Analysis. Then after being analyzed with Multiple Logistic Regression, it shows that exposure to danger information has an influence on the ability of early detection of high risk pregnancy with a significant value of 0.033 and Exp (B) value of 7.657 means that pregnant women exposed to danger information may have a good early detection of 7.657 compared to pregnant women who are not exposed to danger information.

Parity

The frequency distribution of pregnant women based on parity on the ability of early detection of high risk pregnancies shows that primipara pregnant women have less early detection ability while multiparous pregnant women have good early detection abilities. The results of the Chi Square test show 0.015 (<0.05) which means that there is a significant relationship of parity with early detection ability. Furthermore, analyzed using Simple Logistic Regression obtained a significance value of 0.010 (<0.25) so that the exposure variable danger information information can be continued to Multiple Logistic Regression Analysis.

After a statistical test, it was found that there was an influence between parity on the ability of pregnant women to carry out early detection of the risk of preeclampsia with a value of 0.033 and Exp (B) 8,060 which means that pregnant women with multigravida parity are likely to have good detection of 8.060 times compared to parity pregnant women primigravida.

Parity shows the number of children born to a woman. Parity is an important factor in determining the fate of the mother and fetus both during pregnancy and during labor.[9]

The results of cross tabulation showed that pregnant women with multiparous parity were able to detect early the high risk of pregnancy. Multipara is a woman who has more than 1 child. Many children need

Table 1. Distribution of Frequency of Pregnant Women Based on Parity, Knowledge, and Information Exposure on the ability of Early Detection of High Risk Pregnancy

Variable	Early detection ability				Amount		The results of the Chi Square test
	Good		Less				
	n	%	n	%	∑	%	
Parity							
Primipara	15	27.3	40	72.2	55	100	0.015
Multipara	50	71.4	20	28.6	70	100	
Total	65	52	60	48	125	100	
Knowledge							
Good	42	72.4	16	27.6	58	100	0.012
Less	18	26.9	49	73.1	67	100	
Total	60	48	65	52	125	100	
Information Exposure							
Good	38	76	12	24	50	100	0.046
Less	23	30.7	52	69.3	75	100	
Total	61	48.8	64	51.2	125	100	

preparation both mentally and materially.[10,11] Pregnancies included in the category "4 overly" include too many pregnancies and too many children. This will not only affect the health status of mothers and children, but also affect family welfare. In addition, pregnant women who have more than 1 child tend to have more experience about pregnancy and childbirth so that the information about pregnancy has been obtained well and more clearly compared to pregnant women who have never given birth.[12,13]

Knowledge of danger sign

The frequency distribution of pregnant women based on knowledge on the Early Detection Capability of Preeclampsia Risk shows that pregnant women with less knowledge of early detection ability, pregnant women who are knowledgeable enough all have less ability and pregnant women with good knowledge have good early detection abilities.

In the Chi Square test showed 0.012 (<0.05) means that there is a significant relationship of knowledge with high risk early detection ability. Then analyzed using Simple Logistic Regression showing a significant value of 0.151 (<0.25) so that the knowledge variable can be continued to Multiple Logistic Regression Analysis. Then after being analyzed with Multiple Logistic Regression, it shows that knowledge has an influence on the ability of early detection of high risk of pregnancy with a significant value of 0.033 and Exp (B) 6.657 means that pregnant women with good knowledge of danger signs may have good early detection 6.657 times compared to mothers pregnant who do not know about the danger signs of pregnancy.

Knowledge is the result of knowing and this occurs after the person has sensed a certain object. Most human knowledge is obtained through the eyes and ears. Knowledge or cognitive is a domain that is very important for the formation of one's actions.[14] Because from experience and research, it turns out that behavior based on knowledge will be more lasting than behavior that is not based on knowledge.[15,16] This will have a positive impact on pregnant women, namely helping the government reduce the Morbidity and Mortality rate.

Pregnant women who have a good level of knowledge tend to have good behavior in their pregnancy by checking their pregnancy to a health worker so that they are able to make early detection of their pregnancy and get sufficient information about their pregnancy.[10,17]

Exposure to danger information

According to Cybernetics theory in Nursalam (2008), information will determine the process of learning (acquiring knowledge) because learning is the processing of information.[11] In the group of pregnant women who were given health information about the danger signs of pregnancy through radio messages and in health services can increase awareness of obstetric complications marked by an increase in the number of obstetric complication visits 25 - 31%, the percentage of pregnant women referred to increased 35-44%, and the percentage of pregnant women seeking obstetric care themselves as early as possible at 20-28%.[12] The ease of obtaining information will accelerate someone to gain new knowledge.[13]

This research strongly supports the theory of planned behavior that personal factors are a person's general attitude towards something, personality traits, values, emotions, and intelligence that s/he has. Social factors include age, gender, ethnicity, education, income, and religion. Information factors are experience, knowledge and exposure to the media affecting individual attitudes and behavior towards something.

Table 2. Factors that influence the ability of High Risk Early Pregnancy Detection

Variable	B	Sig	Exp (B)
Parity			
Primipara	1.342	0.121	3.561
Multipara	2.121	0.005	8.060
Knowledge			
Good	1.984	0.042	6.657
Less	1.132	0.152	2.816
Information exposure			
Good	1.735	0.033	7.657
Less	1.104	0.125	

Conclusions

It can be concluded that there is an influence of parity, knowledge and exposure to danger information on the ability of early detection of high risk of pregnancy.

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