Factors Associated with Pregnant Women's Knowledge About Pregnancy

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Abstract. A pregnant woman dies every minute due to complications of pregnancy and childbirth. One of the causes of maternal mortality (MMR) is pregnant women's low knowledge about pregnancy. Good knowledge about pregnancy is beneficial for pregnant women to stay healthy during pregnancy. The aim of this research is to analyze factors related to pregnant women's knowledge about pregnancy. This research is an observational-analytic research design cross-sectional. The research sample consisted of 40 people who were determined using a total sampling technique in the pregnant women's class in the Mojo District. Research data was analyzed using the Chi-Square test and logistic regression. Based on the research results, it can be seen that there are four factors that are related to pregnant women's knowledge about pregnancy. The four factors are age, education, parity, and access to information. It is hoped that health and education agencies will improve the quality and quantity of health promotion activities, especially regarding pregnancy among pregnant women.

Keywords: Knowledge, Pregnant Women, Pregnancy.

1 Introduction

Maternal health has become a global development issue. This matters because mothers have a very important role in giving birth to a quality generation of the nation in the future, especially pregnant women who are a vulnerable group. The quality of the nation's next generation can be formed starting from the mental readiness and health of a mother before, during, and after pregnancy. However, this hope is currently experiencing quite serious challenges with the current very high number of maternal deaths. This happens in almost all countries, especially developing and underdeveloped countries [1].

Globally, there is a trend of decreasing maternal mortality (MMR) throughout the world. It is estimated that there were 289,000 maternal deaths worldwide with an MMR of 210 cases by 100,000 live births in 2013. This figure shows a decline rate of 45% from 1990 to 2013. However, 86% of these maternal deaths occurred in developing countries, most of which were in North Africa with 179,000 cases (62%) and Southeast Asia with 69,000 cases (24%). In the Southeast Asia region, Indonesia is the country

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with the second highest MMR with 190 cases by 100,000 live births. Meanwhile, Singapore is the country with the lowest MMR, namely 190 cases by 100,000 live births [2].

Indonesia is a country in the Asian region that has failed to achieve its MMR reduction target. Based on the results of the 2007 Basic Demographic and Health Survey (SDKI), Indonesia's MMR has reached 228 per 100,000 live births. In fact, in 2012 Indonesia's MMR increased very significantly to 359 per 100,000 live births or returned to the condition in 1997. This means that maternal health actually experienced a decline for 15 years. In fact, two decades ago, Indonesia was considered by WHO to be one of the countries that was successful in the KIA program. In 1997, Indonesia was able to reduce the MMR to 334 per 100,000 live births from 390 per 100,000 live births in 1994 [3].

One solution to reducing the MMR is to increase the level of knowledge of pregnant women about pregnancy. This is important considering that knowledge will shape a person's behavior. Pregnant women who have good knowledge about pregnancy tend to behave healthily during pregnancy and after giving birth [4]. The level of knowledge of pregnant women about pregnancy is multifactorial. There are various factors that relate to and influence pregnant women's knowledge about pregnancy. In general, these factors are divided into two, namely internal factors from within the person of the pregnant woman and external factors from the external environment [5].

Internal factors can be divided into sociodemographic and youth factors. Sociodemographic factors are factors inherent in pregnant women related to their pregnancy status, such as the age of the pregnant woman, gestational age, and number of children. Meanwhile, easy factors are factors that can make it easier for pregnant women to live healthily during pregnancy, such as knowledge [6]. External factors related to pregnant women's knowledge about pregnancy can be influenced by enabling and reinforcing factors. Enabling factors are external factors that can help pregnant women to live a healthy life, for example, social support from the family. Meanwhile, reinforcing factors are factors that strengthen pregnant women's intentions to stay healthy during pregnancy, such as the existence of easily accessible health services [7].

The Mojo Health Center area is in Gubeng District, East Java. During From January to September 2017, there were 40 pregnant women who had their status checked using various health services at the Mojo Community Health Center. Based on the explanation that has been described, it is necessary to carry out research that focuses on analyzing factors related to pregnant women's knowledge about pregnancy at the Mojo Community Health Center.

2 Methods

The research was carried out from January to September 2017. This research is observational-analytical research with a research design cross-sectional. The population in this study were all 40 pregnant women who used health services in the Mojo Community Health Center area. Meanwhile, the accessible population is all pregnant women in the Mojo Community Health Center area who have or do not have

a class for pregnant women (KIH). The sample for this study was determined using a total sampling technique, which means that the entire population is the research sample, namely 40 pregnant women. The research data were analyzed through two statistical tests. First, the Chi-Square test to analyze whether there is a relationship between the independent variable and the dependent variable. Second, the logistic regression method is used to analyze the independent variables that have the most influence on the dependent variable [8, 9].

3 Result

Based on Table 1. Shows that the percentage of respondents in the late adulthood category (80%) was greater than respondents in the early adulthood age group (20%). respondents had knowledge respondents who were highly educated, as many as 22 people (88%). Most of the respondents who had low knowledge about pregnancy had low education, namely 8 people (53.3%). there were 19 respondents who worked (47.5%) while there were 21 respondents who did not work (52.2%).

Table 1. Knowledge About Pragnancy

Variable	Knowledge about Pregnancy				Total		OR (95 CI)	P value
	Low		Tall					
		%	n	%	n	%		
Age								
Early adulthood	5	62.5	3	37.5	8	100	7,222	0.013
Late adulthood	6	18.8	26	81.2	32	100	(1,340-38,917)	
EducationFinal	8	53.3	7	46.7	15	100	8,381	0.009
Low	3	12.0	22	88.0	25	100	(1,733-40,530)	
Tall								
Work								
Work	6	31.6	13	68.4	19	100	1,477	0.727
Doesn't work	5	23.8	16	76.2	21	100	(0.366-5.955)	
Parity								
Primipara	4	14.8	6	46.28	13	100	6,708	0.026
Multiparous	7	53.8	23	5.2	27	100	(1,464-	
Grande multip rous	0	0	0	0	0	0	30,733)	
Information Access								
Not good	8	47.1	9	52.9	17	100	5,926	0.017
Good	3	13.0	20	87.0	23	100	(1,267-27,714)	

Respondents who have a high level of knowledge about pregnancy were among respondents with multiparous status, namely 23 people (82.8%). Most of the

respondents who had low knowledge about pregnancy were primipara respondents, namely 4 people (14.8%). respondents had knowledge The highest number of respondents regarding pregnancy were respondents who had good access to information, namely 20 people (87.0%). Most of the respondents who had low knowledge about pregnancy were respondents who had poor access to information, namely 8 people (47.1%).

Table 2. Bivariate Analysis Results

Variable	B	S. E	Wald	Sig.	Exp(B)	CI 95%	
						Lower	Upper
Age	1.963	1.129	3.025	0.082	7.118	0.779	65.006
Education	1.083	1.212	0.798	0.372	2.925	0.275	31.724
Parity	2.548	1.068	5.695	0.017	12.78	1.577	103.62
Information Access	1.381	1.211	1.301	0.254	3.980	0.371	42.711

Based on Table 2, shows that high sig. (0,372) have in education factor. And the lowest in sig. (0.017) have in parity. But on the value of confidence level education factor is lower (0.275) and the highest is parity (1,577). The value of the confidence level education factor is lower (31,724) and the highest is parity (103.62).

4 Discussion

4.1 Age

Age is the length of a person's life calculated from birth. In theory, the older a person gets, the better their ability to absorb information so that their knowledge also gets better. Meanwhile, a person's level of knowledge plays a very important role in shaping his behavior. The better a person's knowledge, the better the behavior that will be formed. This concept can also be applied to the relationship between age, knowledge, and behavior of pregnant women in maintaining their health status during pregnancy. The older a pregnant woman gets, the better her knowledge will be, so it is more likely that healthy behavior will develop during pregnancy. This is important because the healthy behavior of pregnant women is formed from the knowledge they have. Meanwhile, knowledge about pregnancy is complex because there is a variety of material that must be known [10, 11].

The results of this study show that there is a relationship between age and pregnant women's knowledge about pregnancy. The results of this research are in accordance with the results of Ninoy's research in Lamongan (2017). The results of this research state that the age of pregnant women is related to knowledge about pregnancy. Ages 26 to 35 years are included in the stages of early adulthood to late adulthood. At this stage, a person is in an optimal condition in receiving and processing information so that the knowledge formed will be maximized [12, 13].

4.2 Education

The results of this study show that there is a relationship between pregnant women's education and knowledge about pregnancy (p-value = 0.009). This is in accordance with research by Losu (2015) which states that mothers with higher education will have 3.84 better knowledge about high-risk pregnancies (value=0. 000). This shows that the mother's education will influence her knowledge.

Meanwhile, this education can be formal, such as classes for pregnant women, or non-formal, such as counseling about pregnancy, which is currently widely carried out. Education means a process of changing the knowledge, attitudes, and behavior of a person or group as an effort to mature humans through teaching, training, and research efforts. In theory, education influences a person's level of knowledge and attitudes [14, 15]. Both will then shape behavior. Therefore, the higher the education, the better the attitude and knowledge he has. This good knowledge and attitude will form healthy behavior, such as a mother will behave healthily if she has good knowledge [16, 17].

4.3 Employment

These results suggest very small differences according to the respondent's employment status. The definition of work is a socioeconomic factor that can also influence health knowledge. Someone who works will have a wider social environment and interaction so that they will be exposed to more information which will increase their knowledge. In the end, this knowledge makes it easier to shape attitudes and behavior. Pregnancy care behavior is an example of how a pregnant woman processes the information she obtains. This information of course also comes from social interactions in his work.
The results of this study state that there is no relationship between the respondent's education and knowledge about pregnancy with a significance value of 0.727. These results are in accordance with research by Afrilia (2013) in Tangerang which stated that there was no relationship between the work of pregnant women and knowledge about balanced nutrition with a p-value of 0.728 [18].

Working mothers tend to have less time to read media about something. This also means that mothers who do not work have better knowledge. This is because mothers who do not work have more free time to search for information about pregnancy for pregnant women. Meanwhile, interactions that occur in the workplace are not always related to the pregnancy that is being experienced [19].

4.4 Parity

Parity is the number of pregnancies born or the number of children they have either from current or previous marriages. Parity has three categories based on the number of births experienced. The experience of the number of births which are a continuation of pregnancy is an important factor in forming the knowledge of pregnant women. This is because pregnant women have pregnancy knowledge obtained from previous pregnancies. The results of this study also show that there is a relationship between parity and knowledge of pregnant women (p-value = 0.026).

This is in accordance with the results of research by Afrilia (2013) which states that multiparous mothers have 5.95 times better knowledge than primiparous mothers about balanced nutrition during pregnancy. This shows the process of forming better knowledge through the application of existing experience [20]. This experience was obtained by mothers when they were still in primiparous status, which can be even better when they are in multiparous status. Improve that knowledge This is done through information sources that were previously accessed during primipara status or new information sources that are currently available. On the other hand, mothers with primiparous status can actually also have good knowledge because they are generally younger. The younger age group is more adaptive and always wants to know something new, including their first pregnancy [21]. These two things can encourage them to find out information related to pregnancy themselves through various sources. This is in accordance with the theory of Supariasa (2010) which states that primiparous pregnant women tend to have better knowledge than multiparous mothers because primiparous mothers always find out information about their pregnancy and the health of themselves and their first fetus [22, 23].

4.5 Access to Information

A person's knowledge and attitudes are also formed from information obtained from non-formal education, for example, print media, electronic media, and information from other people. This information is formed by sources and access to information. These two factors will be directly proportional to a person's knowledge. The more sources of information and the easier it is for someone to access them, the higher the knowledge they will have. The results of this research show that there is a relationship between parity and access to information (p-value = 0.017).

This is in accordance with the results of research by Yuyun (2017) which states that mothers who have good access to information will have 1.20 times better knowledge about the dangers of pregnancy risks [24]. Bintang's research (2015) also confirms that mothers who have many reliable sources of information will have a 2.80 times better level of knowledge about BPJS babies [25]. Based on these two studies, it can be concluded that access and sources of information have an important role in forming and increasing pregnant women's knowledge regarding the health of themselves and the baby in their womb [26–28].

A person's knowledge and attitudes are also formed from information obtained from non-formal education, for example from print media, electronic media and information from other people. In theory, the more and easier it is for someone to access information, the better and higher the knowledge they will obtain. This is important considering that humans acquire knowledge through the learning process. The learning process requires input, namely access and sources of information [29].

Therefore, the willingness and ability of pregnant women to learn greatly influences their knowledge about pregnancy.

5 Conclusion

Factors related to pregnant women's knowledge about pregnancy, namely: age (p-value=0.013), education level (p-value=0.009), parity (p-value=0.026) and access and sources of information (p-value=0.017). The factor that most influences pregnant women's knowledge about pregnancy is parity with p-value = 0.017. Health and education institutions need to improve health promotion about pregnancy to the community, especially pregnant women. Pregnant women groups are also expected to be willing and able to access pregnancy information themselves. Apart from that, the community, especially families, provide social support for pregnant women in maintaining the health of their pregnancies.

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