

## Factors Affecting the Interest of Pregnant Women to Conduct PPIA Examination (Prevention of Mother-to-Child Transmission) in Senggreng Village, Sumberpucung District, Malang Regency

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### ABSTRACT

**Background:** The government's policy that requires all pregnant women to undergo PPIA (Prevention of Mother-to-Child Transmission) examination is one of the prevention of HIV/AIDS and hepatitis transmission from mother to child, but PPIA (Prevention of Mother-to-Child Transmission) visits to pregnant women in Senggreng village are still low.

**Purpose:** The purpose of this study was to analyze the factors that influence the interest of pregnant women in the PPIA (Prevention of Mother-to-Child Transmission) examination in Senggreng Village, Sumberpucung District, Malang Regency.

**Methods:** The design of this research is quantitative with correlative analytic type. The population of this study were all third trimester pregnant women in Senggreng Village, as many as 31 people. By using the total sampling technique obtained a sample of 31 people. Analysis of the data used is multiple logistic regression.

**Results:** The results showed that the parity factor with a value of  $p = 0.034$  and the level of knowledge with a value of  $p = 0.040$  had an effect on the interest of pregnant women in the PPIA (Prevention of Mother-to-Child Transmission) examination. And the dominant factor that influences the request for pregnant women in the PPIA (Prevention of Mother-to-Child Transmission) examination is the parity factor with the  $\text{Exp}(\beta)$  value of 6.153.

**Conclusion:** Increasing the knowledge of pregnant women about the importance of PPIA (Prevention of Mother-to-Child Transmission) as well as accurate information related to the schedule for the implementation of the PPIA (Prevention of Mother-to-Child Transmission) examination should be improved. The cooperation of all parties, including cadres, families, and health workers, is needed to increase the achievement of PPIA (Prevention of Mother-to-Child Transmission) visits.

**Keywords:** interests, PPIA (Prevention of Mother-to-Child Transmission), pregnant women

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**BACKGROUND**

HIV/AIDS is an infectious disease caused by infection with the Human Immunodeficiency Syndrome Virus which attacks the immune system. The infection causes the patient to experience a decrease in body resistance so it is very easy to be infected with various other diseases. Before entering the AIDS phase, the patient was first declared as HIV positive. HIV-AIDS is a health problem that is closely related to various socio-cultural issues (Kemenkes, 2015).

The 2012 UNAIDS Global HIV Epidemic Report shows that the number of people living with HIV in the world reaches 34 million people. About 50% of them are women and 2.1 million children are less than 15 years old. In South and Southeast Asia, there are about 4 million people living with HIV and AIDS. According to the 2011 WHO/SEARO HIV and AIDS Program Progress Report, in the Southeast Asia region there are approximately 1.3 million people (37%) of women infected with HIV. The number of women infected with HIV from year to year is increasing, along with the increasing number of men who have unprotected sex, which in turn they transmit to other sexual partners. UNAIDS/WHO estimation data (2009) also estimate that 22,000 children in the Asia-Pacific region are infected with HIV and without treatment, half of these infected children die before their second birthday (Kemenkes, 2015).

In Malang Regency, in 2016 there were 1,960 people exposed to HIV/AIDS. Then it increased in 2017 to 2,247 people, lastly in 2018 there were 2,497 people. This data shows an increase every year. The phenomenon of increasing the number of people living with HIV/AIDS is like an iceberg phenomenon. However, although it continues to increase, the handling of people with HIV/AIDS is still carried out optimally (Dinkes Kab. Malang, 2015)

More than 90% of HIV-infected infants are infected by HIV-positive mothers. Transmission can occur during pregnancy, during childbirth and during breastfeeding. Although babies born to HIV-positive mothers are not necessarily infected with HIV, the risk is 25-45%. So if there are no preventive measures, there will be 3000 babies who are feared to be born with HIV positive every year. The risk of babies contracting HIV can be reduced to 2% through the Prevention Mother to Child HIV Transmission (PMTCT) program, namely taking prophylactic ARV drugs during pregnancy and after delivery, giving birth by Caesarean section and giving formula milk to babies born (Kemenkes, 2015).

In Indonesia, the Prevention of Mother to Child HIV Transmission (PMTCT) program has been carried out, which aims to prevent mother-to-child transmission of HIV and reduce the impact of the HIV epidemic on mothers and babies. HIV counseling and testing prevent mother-to-child transmission. In accordance with the recommendations from WHO that basically all pregnant women should be offered an HIV test. This HIV test is carried out with the aim of being able to find out more quickly the presence of HIV infection in pregnant women so that therapy can be given immediately, preparation for safe delivery and prophylaxis for the unborn baby. so that babies can avoid HIV infection (Kemenkes, 2015).

MCH services for HIV testing are offered as part of an integrated antenatal care package, from the first antenatal visit until the time of delivery. If the mother refuses to be tested for HIV, the staff can provide pre-test HIV counseling or refer to voluntary counseling and testing services. The implementation of HIV counseling and testing follows the guidelines for HIV counseling and testing, officers are required to offer HIV tests to all pregnant women starting from the first antenatal visit along with other laboratory tests for pregnant women that have been included in the integrated ANC service package (Permenkes, 2013).

In Senggreng village, the visit of pregnant women for PPIA examination in 2020 is still low. Of the 139 pregnant women in 2020, almost 30% did not do PPIA examinations. From a preliminary study conducted on 10 pregnant women who were interviewed, 6 of them had not done the PPIA examination on the grounds that they did not have the cost, the previous pregnancy had done the PPIA examination and did not know if pregnant women had to do the PPIA examination.

## OBJECTIVE

Based on the description above, the researcher is interested in analyzing the factors that influence the interest of pregnant women in the PPIA examination (prevention of disease from mother to child) in Senggreng Village, Sumberpucung District, Malang Regency.

## METHODS

This research is an analytical survey research. This was carried out on July 20, 2021 – August 20, 2021 in Senggreng village, the working area of the Sumberpucung Health Center, Sumber District, Malang Regency. This study used a cross-sectional observational design. This study uses primary data that comes from a questionnaire. The population was 31 respondents, namely all third trimester pregnant women in Senggreng village. The sampling technique in this study is total sampling. The independent variable in this study was the interest of pregnant women in carrying out PPIA examinations in Senggreng village. The dependent variables are parity, family income and mother's level of knowledge about PPIA. To test the analysis using univariate test, bivariate test with simple logistic regression and multivariate test with Multiple Logistics Regression Test. This study uses a significance level ( $\alpha$ ) of 0.05 (95% confidence level), so that if the multiple logistic regression test obtained p value 0.05 then there is a significant effect between these variables. However, if the p value 0.05, it can be said that there is no significant effect between the two variables.

## RESULTS

**Table 1. Social demographic characteristics of respondents**

No	Characteristic	Frequency	Percentage (%)
1	Age		
	20 years	3	9,7
	21-35 years old	25	80,6
	> 35 years old	3	9,7
	Total	31	100
2	Education		
	Primary school	2	6,4
	Junior high school	11	35,5
	Senior high school	15	48,4
	College	3	9,7
	Total	31	100
3	Work		
	Housewife	20	64,5
	Self-employed	6	19,3
	Private	5	16,2
	Total	31	100

Source: primary data 20 july - 20 august 2021

In table 4.1, it is found that most of the respondents aged 21-35 years are 25 pregnant women (80.6%), the majority of respondents have the latest high school education as many as 15 pregnant women (48.4%), and most of them work as IRT (housewife) as many as 20 people (64.7%).

**Table 2. Cross tabulation between interest of pregnant women in PPIA examination by parity**

Variable			Parity				Total
			Nulipara	Primipara	Multipara	Grandemultipara	
PPA interest	not yet	F	5	6	1	0	12
		%	41.7%	50.0%	8.3%	0.0%	38.7%
	done	F	2	11	6	0	19
		%	10.5%	57.9%	31.6%	0.0%	61.3%
Total		F	7	17	7	0	31
		%	22.6%	54.8%	22.6%	0.0%	100.0%

In table 2 the majority of pregnant women who have not done PPIA examination are primiparous, namely 50% (6 pregnant women). And the majority of pregnant women who had undergone PPIA examination were also primipara, namely 57.9% (11 pregnant women).

**Table 3. Cross tabulation between pregnant women's interest in PPIA examination and family income**

Variable			PPA interest		Total
			Not yet	Done	
Family income	Less than 2 million	F	6	2	8
		%	75.0%	25.0%	100.0%
	More than 2 million	F	6	17	23
		%	26.1%	73.9%	100.0%
Total		F	12	19	31
		%	38.7%	61.3%	100.0%

In table 3, most of the pregnant women who have not done the PPIA examination are pregnant women with a family income of less than 2 million as much as 75% (6 pregnant women). And pregnant women who have done PPIA examination are mostly pregnant women with a family income of more than 2 million, namely 73.9% (17 pregnant women).

**Table 4. Cross tabulation between pregnant women's interest in PPIA examination and level of knowledge**

Variable			PPA interest		Total
			Not yet	Done	
knowledge level	Low	F	6	2	8
		%	75.0%	25.0%	100.0%
	Medium	F	5	10	15
		%	33.3%	66.7%	100.0%
	High	F	1	7	8
		%	12.5%	87.5%	100.0%
Total		F	12	19	31
		%	38.7%	61.3%	100.0%

In table 4, most of those who have not carried out PPIA examinations in Senggreng village are 75% (6 respondents) pregnant women with low levels of knowledge. And most of those who have conducted PPIA examinations in Senggreng village are 87.5% (7 respondents) pregnant women with a high level of knowledge.

**Table 5. Statistical test results**

Variable	B	S.E.	Wald	df	P	Exp( $\beta$ )
Parity	1.817	0.857	4.493	1	0.034	6.153
Family income	1.976	1.182	2.793	1	0.095	7.211
Knowledge level	1.735	0.845	4.209	1	0.040	5.666
Constant	-4.264	1.689	6.376	1	0.012	0.014

Based on table 5, the results of the multiple logistic regression test showed that the parity variable with a P value = 0.034 and the level of knowledge with a P value = 0.040, this means that there is a significant influence on the interest of pregnant women in the PPIA examination in Senggreng village. And the most dominant variable in this study is parity with the value of  $\text{Exp}(\beta) = 6.153$ .

## DISCUSSION

### Parity Factor with Interest of Pregnant Women in PPIA Examination in Senggreng Village, Sumberpucung District, Malang Regency

Data from the cross-tabulation of parity with pregnant women's interest in PPIA examination in Senggreng village obtained data that 10.5% nulliparas, 57.9% primiparas and 31.6% multiparas had PPIA examinations. This data shows that mothers who have had children or have been pregnant have a higher interest than pregnant women who are pregnant for the first time. This is because pregnant women have more than one experience and knowledge about pregnancy so that they try to get better services for themselves and the fetus they contain, including efforts to prevent HIV transmission from mother to baby.

This study is in accordance with Legiati's research (2012) which showed that pregnant women with primiparous parity, who took an HIV test (55.2%) were greater than multiparous (53.1%) and nulliparous (45.3%). Likewise, Wilis milayanti (2018) from the results of his research that (59.1%) with low parity have less efforts to prevent HIV transmission from mother to baby, while people who have high parity (68.4%) have efforts to prevent HIV transmission. sufficient.

From the bivariate parity analysis test on the interest of pregnant women in the PPIA examination, it showed that there was a significant effect between parity and the interest of pregnant women in the PPIA examination in Senggreng village with p value = 0.041. Experience as a source of knowledge is a way to obtain the truth of knowledge by repeating the knowledge gained in solving problems faced in the past (Notoadmodjo, S. 2011). Parity can affect the knowledge and desire of pregnant women in following the advice of health workers, the more parity of the mother, the more the mother will feel that she has more knowledge and experience, giving rise to a tendency for mothers not to follow the advice of health workers because the mother feels she has experienced this. previously so that it will lead to a feeling of knowing more (Mardohar T, 2015).

Mothers who are pregnant for the first time are very new to her, so they are motivated to check their pregnancy with health workers and carry out PPIA examinations, on the other hand, mothers who have given birth to more than two children have the assumption that they have experience so they are not motivated to check their pregnancy or do pregnancy tests. HIV test again. The results of this study are not in accordance with the alleged cause of the low PPIA visits in Senggreng village through a preliminary study conducted by researchers. Mothers who have > 1 child say pregnancy is normal, so no need for re-examination because in previous pregnancies they have had PPIA examinations.

### **Family Income Factors with Interest in Pregnant Women in PPIA Examination in Senggreng Village, Sumberpucung District, Malang Regency**

The results of the cross tabulation between family income and the interest of pregnant women in PPIA examination in Senggreng village obtained data that 73.9% of respondents whose total income was more than 2 million had carried out PPIA examinations. From this data, it can be said that pregnant women with high family incomes (more than 2 million) have a higher interest in carrying out PPIA examinations. The results of the preliminary study also obtained data that pregnant women who had not carried out the PPIA examination were constrained by costs.

From the bivariate analysis test of family income with the interest of pregnant women in PPIA examination in Senggreng village,  $p$  value = 0.023 means that there is a significant influence between the amount of family income and the interest of pregnant women in PPIA examination in Senggreng village. This study is in accordance with the results of Anggraini's research (2014) which shows that mothers who have high incomes tend to check VCT services. Likewise, the results of Ida Sofiyanti's research (2018) show that there is a significant relationship between the respondent's work and HIV testing behavior, this shows that economic conditions or family income greatly affect the interest of pregnant women to carry out PPIA examinations.

The characteristics of the respondents obtained data that some of the pregnant women who had carried out the PPIA examination also worked as private employees or entrepreneurs. This can be one of the points in increasing family income. There are also those with high incomes who do not carry out PPIA examinations. This could be due to the busyness of pregnant women so that they have not had time to do an examination. In addition, the lack of information that the PPIA examination is mandatory for all pregnant women and information about the schedule for the PPIA examination can also be one of the causes.

In addition, this study also obtained data that 25% of pregnant women with family incomes of less than 2 million also had PPIA examinations. Of course, this cannot be separated from the existence of a government program that makes HIV and Hepatitis tests free for pregnant women through the PPIA program. In addition, poor people who have KIS can also get this service for free.

### **Factors of Mother's Knowledge Level with Pregnant Women's Interest in PPIA Examination in Senggreng Village, Sumberpucung District, Malang Regency**

The results of the cross tabulation between the level of knowledge and the interest of pregnant women in the PPIA examination in Senggreng village obtained data that 87.5% of respondents with a high level of knowledge had carried out the PPIA examination. These results can be interpreted that pregnant women in Senggreng village with a high level of knowledge have a higher interest in PPIA examination. This result is also in accordance with the results of Aswar's research (2012) which shows that mothers who have good knowledge about HIV testing will make mothers want to use VCT services. Likewise Legiati's research.



et.al (2012) who examined the behavior of pregnant women for HIV testing in Bandarharjo and Tanjung Mas sub-districts, Semarang City which stated that most pregnant women had good knowledge about preventing mother-to-child HIV transmission (PPIA) of (64.4%) compared to pregnant women who have poor knowledge of (35.6%). Pregnant women who lack knowledge about preventing mother-to-child transmission of HIV (PPIA) are pregnant women with basic education.

From the bivariate analysis test of family income with the interest of pregnant women in the PPIA examination in Senggreng village, a p value = 0.020 means that there is a significant influence between the amount of family income and the interest of pregnant women in the PPIA examination in Senggreng village. In using health services, including the PPIA examination, a person is influenced by his behavior which is formed from his knowledge. A person tends not to use health services because of the belief and belief that health services cannot cure the disease, and vice versa.

This is in line with the previous discussion on the effect of parity on the PPIA examination. Where in primiparas and multiparas they have good experiences from what they hear, see, read or what they have experienced so that it will increase their knowledge. The results of this study are in accordance with previous research conducted by Desiliana (2020) which stated that there was a significant relationship between parity and knowledge of pregnant women about PMTCT.

Knowledge is influenced by factors of formal education and is very closely related. It is hoped that with higher education, the knowledge will be wider. But people with low education are not necessarily low-knowledge either. Increased knowledge is not absolutely obtained from formal education, but can also be obtained from non-formal education. Knowledge of an object contains two aspects, namely positive aspects and negative aspects. These two aspects determine a person's attitude. The more positive and objective aspects are known, the more positive attitude will be towards certain objects (Notoatmojo, 2014). On the characteristics of education in this study, it was found that most of the pregnant women had the last education of high school, junior high school and some even had several universities. This is also a factor in the high knowledge of mothers so that they have the willingness to carry out PPIA examinations in Senggreng village, Sumberpucung sub-district.

### **The Effect of Parity, Family Income, and Mother's Knowledge Level on Interest of Pregnant Women in PPIA Examination in Senggreng Village, Sumberpucung District, Malang Regency**

From the results of the multivariate test using multiple logistic regression, it shows that the parity variable with a value of  $P = 0.034$  with a value of  $\text{Exp}(B) = 6.153$  and a level of knowledge with a value of  $P = 0.040$  with a value of  $\text{Exp}(B) = 5.666$  has a partial effect on interest pregnant women in PPIA examination in Senggreng village. While the family income variable with a  $P$  value = 0.095 or a  $P$  value  $> 0.05$  can be interpreted that family income does not have a partial effect on the interest of pregnant women in the PPIA examination.

The results of the multivariate test also showed that the most dominant variable in the interest of pregnant women in the PPIA examination was the parity variable with the value of  $\text{Exp}(\beta) = 6.153$  and  $P$  value = 0.034. so it can be concluded that nulliparas are estimated to be 6.153 times more likely to perform PPIA examinations than other parities.

In addition, the multivariate test also showed that in this study there was a negelkerke R Square value of 0.562 or equivalent to 56.2%. So the conclusion is that parity, family income and level of knowledge have the ability to explain the interest of pregnant women in the PPIA

examination by 56.2% and the remaining 43.8% is explained by other factors not taken by the researcher.

## CONCLUSION

Parity and level of knowledge are factors that influence the interest of pregnant women in PPIA examination in Senggreng village with p value = 0.034 for parity and p value = 0.040 for knowledge level. While the dominant factor in influencing the interest of pregnant women to carry out PPIA examination is parity with the value of  $\text{Exp}(\beta) = 6.153$ . Increasing the knowledge of pregnant women about the importance of PPIA as well as accurate information related to the schedule for the implementation of the PPIA examination should be improved. The cooperation of all parties, including cadres, families and health workers, is needed to increase the achievement of this PPIA visit. The ball pick-up technique can be an alternative solution to increase PPIA visits in the village.

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