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URL of this article: <http://heanoti.com/index.php/hn/article/view/hn20803>

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## The Design of Antenatal Care Visit Behavior of Pregnant Women in Public Health Center of Jember Regency

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### ABSTRACT

Antenatal care service is a health service which is carried out by medical staffs to pregnant women while pregnancy period is based on the minimum service standards. Antenatal care examinations are very important for women's pregnancy health from first trimester to the childbirth. The purpose of this research was to examine the determinants of the antenatal care behavior of pregnant women in the work area of the Kalisat Public Health Center. The respondent 77 people were taken by proportionate stratified random sampling. The instrument used was check list of knowledge, behavior, family support, cadre support, health officer support. The result of logistic regression test showed that there were influence of determinan factors on antenatalcare behavior of pregnant at public health center.

**Keywords:** Antenatal care, Health behavior, Pregnant women

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### INTRODUCTION

#### Background

Maternal and Child Health Problems (MCH) is still a health problem in Indonesia. This is due to the high maternal mortality rate and infant mortality rate (IMR) in Indonesia. MCH and IMR in Indonesia is the highest in ASEAN with the number of maternal deaths each year reaching 450/100 thousand live births (KH) which is far above the maternal mortality rate in the Philippines reaching 170 / 100,000 KH, Thailand 44 / 100.000 KH<sup>(1)</sup>. Based on Indonesian Demographic Health Survey (SDKI) 2012, AKI recorded 359/100 thousand KH. Recorded death is far higher than the results of the 2007 IDHS recorded 228/100 thousand KH<sup>(2)</sup>.

Antenatal care is a health service performed by a health worker to the mother during her pregnancy according to established antenatal care standard. This antenatal care service minimum pregnant women get 4 times during pregnancy that is 1 time in the first and second trimester, 2 times in the third trimester.

The high maternal mortality rate one of them is caused by several factors such as the still low awareness of pregnant women to check pregnancy and congenital diseases suffered by pregnant women. Maternal health is a national problem that must be given top priority, as it determines the quality of human resources in the future. The examination of pregnant women in the country progresses about 15 times during pregnancy, whereas in Indonesia 4-5 times examination considered that is sufficient for low-risk pregnancies. The prenatal or antenatal period is the period of preparation, both physically, namely fetal growth and maternal or psychological adaptation, namely preparation to parenthood<sup>(3)</sup>.

Behavior of antenatal care visit of pregnant women can be influenced by several factors related to public behavior toward health facility. Green (1980) states that health service utilization behavior is influenced by several factors: Predisposing factors include knowledge, attitudes, beliefs, values, perceptions related to individual and group motivation, including demographic factors such as socio-economic, age, sex, and family size, reinforcing factors include attitudes and behaviors of health workers, health cadres, family support, and enabling factors including the availability of health care facilities and the ease of achieving them<sup>(4)</sup>. Based on that, the researcher is interested to examine the Determinant of the Behavior of Antenatal Care Visits to Pregnant Women in the Work Area of Kalisat Public Health Center of Jember Regency.

**Purpose**

The purpose of this research was to analyze the determinants of antenatal care visit behavior in pregnant women in the working area of Kalisat district health center of Jember district.

**METHODS**

This research used analytical observation with cross sectional design. This research was done in the working area of Kalisat Community Health Center of Gambiran, Plalangan, Glagawero, Ajung and Sumberjeruk. This research was conducted in November to December 2017. Ninety respondents were taken by Proportionate stratified random sampling as sample with inclusive criterion, such as pregnant women were willing to be respondent and came to perform antenatal care checks.

Checklist was used in this research as instrument. Univariate analysis in this research use frequency distribution. The bivariate analysis used was logistic regression with significance level of 95% ( $\alpha = 0,05$ ) to see the effect of independent variable (covering mother thinking and feeling related to knowledge and attitude, mother role model, resources including facility availability and mother time and culture maternal social effects on dependent variables (ie, maternal behavior in antenatal examination).

**RESULTS**

The respondent characteristic in this research includes respondent characteristics based on predisposition factors, enablin factors and reinforcing factors. Here the Respondents characteristic based on Education, knowledge, attitude, job, time to Health Center, transportation, medical staff, kader and family partisipacipation.

**Predisposing Factors**

Education of Pregnant

From the above data it can be seen that the education of pregnant women in the working area of Kalisat health center in December 2017 shows that most respondents who have elementary education have a level of complete antenatalcare visit that is 47 people with p value 0.000 (<0.05) so that H1 can be accepted meaningful exist significant relationship between maternal education and antenatal care visit behavior of pregnant women.

Table 1. Distribution of pregnant education

Education	Behavior of antenatal care visit		Total	P value
	Complete	Incomplete		
Elementary	0 (0%)	4 (25%)	4 (5.6%)	0.000
Medium	47 (77%)	12 (75%)	59 (72%)	
High	14 (23%)	0 (0%)	14 (16%)	
Total	61 (100%)	16(100%)	77(100%)	

Job of Pregnant

Based on the data of pregnant women's work in the working area of Kalisat health center in December 2017 showed that most respondents did not work had a complete antenatal care visit behavior of 40 people (77%) with p value 0.010 (<0.05) so that H1 was acceptable meaningful there is a significant relationship between maternal employment and antenatal care visit behavior of pregnant women.

Table 2. Distribution of pregnant's job

Job	Behavior of antenatal care visit		Total	P value
	Complete	Incomplete		
Work	21 (34%)	1 (6.2%)	22 (5.6%)	0.010
Not Work	40 (77%)	15 (75%)	65 (72%)	
Total	61 (100%)	16 (100%)	77 100%	

Knowledge of Pregnant

Data from the knowledge of pregnant women in the working area of Kalisat clinic in December 2017 which shows most of the sufficient knowledge respondents have a complete antenatal care visit level of 44 people with p value 0.002 (<0.05) so that H1 is acceptable which means there is a relationship between the knowledge mother and antenatal care visit behavior of pregnant women.

Table 3. Distribution of pregnant knowledge

Knowledge	Behavior of antenatal care visit		Total	P value
	Complete	Incomplete		
Good	0 (0%)	4 (25%)	4 (5.6%)	0.002
sufficient	44 (77%)	8 (75%)	59 (72%)	
Less	17 (23%)	2 (3%)	14 (16%)	
Total	63 (100%)	14 (100%)	77 (100%)	

Pregnant's Attitude

Based on the above data, it is known that the attitude of pregnant women in the work area of Kalisat health center in December 2017 shows that most of the respondents have a neutral attitude with complete antenatal care behavior ie 33 people (63%) with p value 0.007 (<0.05) so H1 is acceptable which means there is a significant relationship between maternal attitude and antenatal care visit behavior of pregnant women.

Table 4. Distribution of pregnant's attitude

Attitude	Behavior of antenatal care visit		Total	P value
	Complete	Incomplete		
Netral	33 (63%)	14 (25%)	47 (5.6%)	0.007
Positif	28(23%)	2 (65%)	30 (72%)	
Total	61 (100%)	16 (100%)	77 (100%)	

Enabling factors

Availability of transportation

Looking at these results, it can be seen that the transportation of pregnant women in the work area of Kalisat clinic in December 2017 showed that most of the respondents did not have transportation to health service that is 47 people (51.9%) with p value 0.031 (<0.05) so that H1 is acceptable which means there is a significant relationship between maternal attitude and antenatal care visit behavior of pregnant women.

Table 5. Distribution of transportation

Transportation	Behavior of antenatal care visit		Total	P value
	Complete	Incomplete		
Availability	47 (77%)	4 (25%)	4 (5.6%)	0.031
Not available	30 (23%)	12 (75%)	59 (72%)	
Total	(100%)	16 (100%)	77 (100%)	

Time of pregnant mother to health service

The table above is the result of data of pregnant women's travel time to health service in the work area of Kalisat clinic in December 2017 which shows most respondents have long time to go to health service that is as much as 47 people (77%) with p value 0.302 (> 0.05) so that H0 is received meaningful there is no significant relationship between travel time and antenatal care visit behavior of pregnant women.

Table 6. Distribution of time

Time	Behavior of antenatal care visit		Total	P value
	Complete	Incomplete		
Hurry	36 (47%)	4 (5%)	40 (52%)	0.302
Long	25 (32%)	12 (16%)	37 (48%)	
Total	61 (79%)	16 (21%)	77 (100%)	

**Reinforcing factors**

**Health Personnel Support**

The table is the result of data of health personnel support in the work area of Kalisat clinic in December 2017 which shows that most health workers have sufficient support for pregnant women examination that is 61 people (79%) with p value 0.097 (> 0.05) so that H0 is accepted which means there is no significant correlation between health worker support and antenatal care visit behavior of pregnant women so that it can not be continued on multivariate analysis.

Table 7. Distribution of health personnel support

Health Personnel Support	Behavior of antenatal care visit		Total	P value
	Complete	Incomplete		
Not Support	0 (0%)	4 (5%)	4 (5%)	0.097
Support	61 (79%)	12 (16%)	59 (95%)	
Total	61 (79%)	16 (21%)	77 (100%)	

**Cadre Support**

The above table is the result of cadre support data in the work area of Kalisat clinic in December 2017 which shows that most cadres provide enough support for pregnant women for pregnancy examination that is 59 people (77%) with p value 0.915 (> 0.05) so that H0 is accepted which means there is no significant relationship between cadre support and antenatal care visit behavior of pregnant women.

Table 8. Distribution of cadre support

cadre support	Behavior of antenatal care visit		Total	P value
	Complete	Incomplete		
Not Support	2 (2%)	0 (%)	2 (2%)	0.915
Support	59 (77%)	16 (21%)	59 (98%)	
Total	61 (79%)	16 (21%)	77 (100%)	

**Family Support**

The above table is the result of data from family support for pregnant women for pregnancy examination in Kalisat health center work area on December 2017 which shows most of hammy family provide enough support that is 61 family (79%) with p value 0.014 (<0.05) so H1 is accepted that there is a significant relationship between family support and antenatal care visit behavior of pregnant women.

Table 9. Distribution of family support

Family Support	Behavior of antenatal care visit		Total	P value
	Complete	Incomplete		
Not Support	0 (0%)	6 (8%)	6 (8%)	0.014
Support	61 (79%)	10 (13%)	71 (92%)	
Total	61 (79%)	16 (21%)	77 (100%)	

## DISCUSSION

### Predisposing Factors of Pregnant Behavior For Antenatal Care Visit

#### Maternal education factor

The results of research conducted in the working area of Kalisat Public Health Center stated that the majority of respondents have middle education background that is as many as 59 people (76,6%) with complete pregnancy imaging status of 17 people. From the results of logistic regression analysis obtained P-value of 0.000 (<0.05), meaning there is a meaningful relationship between education to visit maternity examination.

Education means the guidance given by someone to others so they can understand. It can not be denied that the higher a person's education the easier it is for them to receive information and ultimately the more knowledge they have. This study is in line with research conducted Cholifah and Navyati<sup>(5)</sup>, mothers who achieve K4 almost entirely (90.0%) highly educated compared with mothers who have medium and basic education. While mothers who did not achieve K4 were almost entirely (80.0%) educated as low as those of middle and high educated mothers, with  $P = 0.0001$  meaning  $\alpha < 0.05$  then H1 was accepted, achievement of K4 Education is a method applied in the community environment that aims to improve the thinking ability of the community. The higher the level of education you have the better the way of thinking that is owned by someone.

This is because during the process of education one will be forced to develop a thought pattern that has to capture every material presented, receiving every science taught and invited to think logically in solving every problem posed. With the existence of such a method indirectly in a person will happen the process to address each problem logically in accordance with the study of science. Pregnant women who have educational background in the category enough, in itself already has a basis to think logically to behave about antenatal care visits.

#### Maternal job factor

An unemployed mother will have more opportunity for antenatal care than the working mother. In mothers who work outside the home often do not have the opportunity for antenatal care checks, the mother still works in the workplace or often the mother who is too busy with his job to forget his medical examination<sup>(6)</sup>.

In some communities in Indonesia, work is an important thing that should be a priority because it relates to income that can be used for the fulfillment of life needs. This is a model that has been developed especially in developed countries such as Indonesia. A working mother tends to spend more time doing her work than having an antenatal care visit.

Work is what is done, done, and done. Working mothers have fewer spare time compared to unemployed mothers so that working mothers are less likely to come from a nursing service than mothers who do not work unless they have carers. The status of the mother's work is related to the opportunity to come to posyandu. A mother who is not working will have the opportunity to come to posyandu rather than working mother.

The results of research conducted in the working area of Kalisat Public Health Center stated that the majority of respondents have educational background menengah that is as many as 63 people not working (86.6%). From the results of logistic regression analysis obtained P-value of 0.006 (<0.05), meaning there is a meaningful relationship between education to visit maternity examination.

#### Maternal knowledge factor

Knowledge is the result of human sensing or the results of a person to the object through the senses they have (eyes, nose, ears, etc.)<sup>(6)</sup>. The results of this study indicate that there is a relationship between mother's knowledge about antenatal care services with the level of utilization of antenatal services care with weak relationship strength. Knowledge contributes 38% to the utilization of antenatal care.

The results of this study are in line with the theory of Notoatmodjo<sup>(6)</sup> which states that behavior based on knowledge will be more lasting than not based on knowledge. Knowledge will provide a person's ability to remember the meaning, purpose, and benefits of pregnancy examination. It means higher knowledge of pregnant women on antenatal care, the higher the utilization rate of antenatal care services. The results of this study are in line with the research conducted by Indriani Sarpania Rasing (2012) in Condoran Health Center, Tana Toraja which states that there is a significant relationship between mother's knowledge and the utilization of antenatal care<sup>(7)</sup>.

#### Factor of Mother's Attitude

The results of research conducted in the working area of Kalisat Public Health Center stated that the majority of respondents have middle educational background that is 30 people (46,6%). From the result of logistic

regression analysis obtained P-value equal to 0.007 ( $<0,05$ ), meaning there is a significant relation between mother attitude toward visit of mother's pregnancy examination. This result is consistent with Simanjuntak research indicating that there is a significant relationship between respondent attitude and antenatal K4 according to standard, obtained by  $OR = 2,83$  which means that respondents who have positive attitude will have tendency 2,83 times to conduct antenatal visit K4 according to standard compared which has a negative attitude.

In accordance with Notoatmodjo's theory<sup>(6)</sup>, the attitude clearly indicates the compatibility of reactions to certain stimuli which in everyday life is a reaction to the stimulus of pregnancy by performing regular pregnancy checks in order to develop healthy pregnancies and to minimize the risk of complications during childbirth, premature birth and death mother and baby. The higher the attitude of pregnant women who support the higher the behavior of pregnancy visits, and the lower attitudes of pregnant women who do not support the lower the behavior of pregnancy screening visits.

### **Predisposing Factors Of Pregnant Behavior For Antenatal Care Visit**

#### Transportation and time factor

From the result of logistic regression analysis obtained P-value equal to 0.031 ( $<0,05$ ), meaning there is a significant relation between transportation availability to visit of pregnancy examination of mother. Access to health care facilities is one of the supporting factors in the utilization of health services.

Affordability or access is a health service that must be attainable by society, not hindered by geographical, social, economic, organizational and linguistic conditions<sup>(8)</sup>. Affordability or access of pregnant women in obtaining antenatal care in this study includes geographic access Geographical access is measured by distance, length of travel, travel expenses, type of transportation for access to health services and economic access Economic access is related to the ability to pay for health care costs.

Travel time to health services is also another determinant factor for health services. Sandra's research (2010) states that travel time to health services  $<20$  minutes 0.4 times more complete status of child's basic immunization when compared with travel time over  $\geq 20$  minutes. The ease of reaching health facilities because of adequate transportation at an affordable cost will affect the utilization rate of health services.

The results of research conducted in the working area of Kalisat Public Health Center stated that the majority of respondents have a long time to go to health service that is as much as 57 people (78,6%). From logistic regression analysis result obtained P-value equal to 0.331 ( $> 0,05$ ), meaning there is no significant relationship between travel time to visit of pregnancy examination of mother. This could be because the majority of respondents already have adequate transportation to go to health services, so although long travel time is not an obstacle for pregnant women to check their pregnancy because there is already support from the means of transportation.

This is not in line with Sabardianto's research (2008) in Verdina (2012) states that travel time to puskesmas has an effect on the utilization of puskesmas in terms of frequency of visit between service user with fast time to puskesmas with service user distance and long time duration.

### **Predisposing Factors of Pregnant Behavior For Antenatal Care Visit**

#### Health worker attitude factor

KIA officers are expected to provide advice on the need for antenatal care to pregnant women, so that pregnant women have a positive knowledge and attitude toward antenatal care<sup>(9)</sup> the higher attitudes of health workers that support the higher the behavior of pregnancy visits, and the lower the attitude of health workers who do not support the lower the behavior of pregnancy prenatal visits. In an effort to further improve the motivation of pregnant women about the importance of Antenatal Care examination see literature, it is very necessary role of health officer (midwife, nurse, doctor) as executor in giving antenatal care service in appearance aspect, also professionalism attitude, because as pregnant mother will go back to her and her pregnancy to the same place if she feels well appreciated. With good health care and professional services, it is expected to increase the motivation and visits of pregnant women in their self-examination and pregnancy regularly.

Attitudes of officers are included in the reinforcement factors that cause pregnant women to take advantage of antenatal care in health services. In line with research conducted by Lieu Thi Thuy Trinh<sup>(10)</sup> in the three rural areas of Vietnam shows that antenatal care obtained during the first contact with health workers which is most influential on the continuation of the ANC visit and the overall use of the ANC.

#### The cadre support factor

The Snehendu B. Kar in Notoatmodjo<sup>(6)</sup> theory concludes that one's health behavior is determined among others by the presence or absence of the support of the surrounding community (social support). People who live

in an environment that upholds health aspects will be more enthusiastic in maintaining their health. Conversely those living in the environment with unhealthy lifestyles / do not pay attention to health will tend not to care about disease prevention or regular health examination.

However, on the results of research conducted in the working area of health clinics Kalisat states that as many as 34 respondents (53.1%) who argue good of support cadres, From the results of logistic regression analysis obtained P-value of 0.83 ( $> 0.05$ ), meaning there is a significant correlation between cadres' support for pregnancy screening visits. This is because the support of cadres is not the most important thing in determining the behavior of antenatal care for pregnant women.

#### Family support factor

The role of families in antenatal care is very important, the family as the people closest to pregnant women who must motivate pregnant women to check their pregnancy and support pregnant women both morally and materially, so that the mother can through pregnancy well. The results of this study indicate that there is a relationship between family support and utilization of antenatal care services by pregnant women with weak relationship strengths. Family support contributes amounting to 36% towards the utilization of antenatal care services.

Family support for pregnant women is indicated by always reminding pregnancy schedule, delivering mother to check its contents, reminding mother to eat nutritious food and Fe tablets, and preparing the cost for pregnant women to check their contents. The results of this study are in line with research conducted by Nafisa Halim (2010) on the demand for antenatal services for child health in Nepal shows that family support, especially husband is a factor that influence pregnant women to take advantage of antenatal care services.

In fact the role of husband and family is very large for pregnant women in supporting the behavior or actions of pregnant women in utilizing health services. The Snehendu B. Kar theory concludes that one's health behavior is determined among others by the presence or absence of the support of the surrounding community (social support).

### CONCLUSION

The active attitude of health personnel and cadres is very important to make special data for pregnant women who are not or late in doing pregnancy checks so there is a special team that provides services for pregnant women at home. It is very important for pregnant women to be able to get more knowledge about the importance of antenatal care visit so that will give high awareness for mother to do pregnancy examination.

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