

# Determinants Of Pregnant Women's Compliance In Carrying Out Antenatal Care Visits

*Ida Lestari Tampubolon<sup>1\*</sup>, Novy Ramini Harahap<sup>2</sup>*

*<sup>1</sup>Prodi D4 Kebidanan, Universitas Haji Sumatera Utara, Indonesia*

*<sup>2</sup>Prodi Profesi Bidan, Institut Kesehatan Helvetia, Medan, Indonesia  
idalestari0801@gmail.com*

## ABSTRACT

Antenatal care during pregnancy aims to detect early high-risk pregnancy and childbirth so that it can reduce maternal mortality. Currently in Indonesia every day there are maternal deaths related to pregnancy, childbirth, and the postpartum period, the World Health Organization (WHO) reports that maternal deaths are estimated at 500,000 deaths each year and 99% of them occur in developing countries. Objective: To determine factors related to compliance with antenatal care visits in pregnant women. Method; analytical survey with a cross-sectional approach. The population is all pregnant women in Trimester III who come to the Pratama Ridho Clinic as many as 30 people. The sampling technique was Accidental Sampling and 25 respondents were obtained. The data used were primary data and tested using the chi-square test. Results; From the chi-square test between family support and compliance with ANC visits, the p-value = 0.000 was obtained, the distance factor of residence was obtained p-value = 0.002, the perception factor p-value 0.031 and parity p-value 0.039. Conclusion; There is a relationship between family support visits, distance from residence to clinic, perception and parity of pregnant women with compliance with ANC visits at the Ridho Medan Pratama Clinic in 2024. It is hoped that families will provide support to pregnant women so that they are compliant in making ANC visits.

**Keywords:** Knowledge, Attitude, Nutritional Status of Toddlers

## INTRODUCTION

Pregnancy is a gift that all women as prospective mothers long for. In general, pregnancy is a normal or physiological condition and will give birth at full-term fetal age through the birth canal. However, not all pregnancies develop normally. Pregnancy can be a major problem for mothers if pregnancy checks are not carried out regularly.

According to the World Health Organization (WHO), antenatal care during pregnancy aims to detect early high-risk pregnancy and childbirth so as to reduce maternal mortality. WHO reports that maternal mortality is estimated at 500,000 deaths each year and 99% of them occur in developing countries.(1). One of the Sustainable

Development Goal (SDG's) programs in 2030 is an effort to reduce maternal mortality rate so that maternal mortality rate reaches 95% or 70 maternal deaths per 100,000 live births.(2).

The results of the 2018 Riskesdas (Basic Health Research) showed that the coverage of services for pregnant women K1 was 86%0%. In NTB in 2017, the coverage of services for pregnant women K1 was 102.84% and K4 was 94.30%. While in 2016 there was a slight decline with K1 being 99.37% and K4 being 92.00%(3). Based on the 2019 Indonesian Health Profile, it is estimated that in 2024 the MMR in Indonesia will drop to 183/100,000 live births and in 2030 it will drop to 131 per 100,000 live births.(4).

The Health Profile of North Sumatra Province in 2019 was 202 people with a distribution of maternal deaths of 53 people. The age group that contributed to the high number of maternal deaths was the 20-34 year age group. The highest number of maternal deaths was found in Asahan Regency (as many as 15 people), Deli Serdang Regency (as many as 13 people), and Batu Bara and Langkat Regencies (as many as 13 people each)(5).

The District/City Health Profile Report, the number of deaths in the last 3 years was found to fluctuate, namely 205 deaths in 2017, 185 deaths in 2018, and 200 deaths in 2019. If the number of maternal deaths is converted to the Maternal Mortality Rate (MMR), the MMR in North Sumatra Province in 2019 was 71.96 per 100,000 KH.(5). The standard for antenatal care check-up visits for pregnant women is a minimum of 6 visits during pregnancy.(6). There are several factors that influence pregnant women in checking their pregnancy, including family support, distance of residence, perception and parity. Family support is a form of interpersonal relationship that includes attitudes,(7). Distance from residence is one of the variables that supports pregnant women in carrying out ANC checks.(8). The process of forming perception is explained by Feigi as the interpretation of the results of observations when the person concerned gives an interpretation or meaning to the information as a whole.(9). Mothers with high parity of more than 3 have a high maternal mortality rate because endometrial disorders can occur.(8).

Research conducted by Salmia Syam, et al. with the title of factors related to compliance with ANC implementation in pregnant women at the Bowong Cindea Community Health Center, Pangkep Regency in 2018 concluded that respondents who

received family support were more compliant in carrying out ANC examinations compared to respondents who did not receive family support.(10).

According to Dian Setyaningrum, et al. with the title Factors Related to Compliance in Carrying Out Antenatal Care (ANC) in the Waihong Ambon Health Center Work Area 2018, it was concluded that 69.4% of respondents who lived close to the antenatal care facility were compliant in carrying out ANC and 38.7% of respondents who lived far away tended to be non-compliant.(11).

The results of the initial survey conducted by researchers at the Ridho Pratama Clinic, Jl. KL.Yos Sudarso Gg Panitra No.47, researchers conducted interviews with 9 pregnant women in the third trimester door to door and with pregnant women in the third trimester who came to the Ridho Pratama Clinic. The results of interviews with 9 pregnant women showed that 2 pregnant women said they did not check their pregnancy because their husbands or other family members did not want to accompany them to check their pregnancy at the Ridho Pratama Clinic. Meanwhile, 1 pregnant woman said she did not check her pregnancy because the distance from her home to the Ridho Pratama Clinic was quite far so that the mother only checked her pregnancy once. Meanwhile, 4 other pregnant women said they would check their pregnancy if it was visible and if the mother experienced complaints such as loss of appetite. 2 other people with grandemutigravida mothers or 6th child pregnancy said they would check their pregnancy at 32-34 weeks of pregnancy.

## **RESEARCH METHODS**

Research design is a part of research that contains descriptions of the research flow that describes the researcher's thought patterns in conducting research, which is commonly called the research paradigm.(12).

This study was conducted at the Ridho Pratama Clinic in June-September 2024. The population in this study were 30 pregnant women in the third trimester who came to the Ridho Pratama Clinic in June - September. The research sample to determine the factors related to compliance with antenatal care visits in pregnant women was Accidental Sampling, namely 25 pregnant women in the third trimester of pregnancy >30 weeks who came for pregnancy check-ups at the Ridho Pratama Clinic in Medan from June to

September. The research instrument was a questionnaire that was distributed directly to respondents.

The data analysis used was univariate and bivariate analysis using the chi-square test to find the relationship between factors related to compliance with antenatal care visits in pregnant women at the Ridho Medan Pratama Clinic in 2024.

## RESEARCH RESULT

### Characteristics

Based on the table above, it is known that out of 25 respondents, there are 6 respondents whose age is <20 years, 10 respondents whose age is 20-35 years and 9 respondents whose age is >35 years. The parity variable shows 11 primiparous respondents, 6 multiparous respondents and 8 grande multiparous respondents.

**Table1.** Frequency Distribution of Characteristics of Pregnant Women

Characteristics	f	%
<b>Age</b>		
< 20 Years	6	24.0
20 - 35 Years	10	40.0
>35 Years	9	36.0
<b>Parity</b>		
Primipara	11	44.0
Multipara	6	24.0
Grand Multipara	8	32.0
<b>Total</b>	<b>25</b>	<b>100</b>

### Univariate Analysis

Based on table 2 below, it is known that out of 25 respondents, 15 respondents (60%) received support from their families and 10 respondents (40%) did not receive family support. Based on table 4.3. above, it is known that out of 25 respondents, 12 respondents (48.0%) lived close to the clinic, and 13 respondents (52.0%) lived far away. 14 respondents (56.0%) had positive perceptions and 11 respondents (44.0%) had

negative perceptions. 14 respondents (56.0%) were compliant and 11 respondents (44.0%) were non-compliant.

**Table 2.** Frequency Distribution of Family Support, Distance of Residence, Perception and Compliance of Antenatal Care Visits in Pregnant Women

<b>Variables and Categories</b>	<b>f</b>	<b>%</b>
<b>Family support</b>		
Support	15	60.0
Does not support	10	40.0
<b>Distance of Residence</b>		
At close range	12	48.0
Long distance	13	52.0
<b>Perception</b>		
Positive	14	56.0
Negative	11	44.0
<b>Compliance</b>		
Obedient	14	56.0
Not obey	11	44.0

### **Bivariate Analysis**

Based on table 3. it is known that the majority of respondents received family support (60%) with the category of being obedient in making ANC visits. Based on the results of the chi-square statistical test with  $\alpha$  0.05, the p-value = 0.000 was obtained. In the distance of residence factor, the majority of respondents have a far distance from their residence with the category of not being obedient in making ANC visits. Based on the results of the chi-square statistical test with  $\alpha$  0.05, the p-value = 0.001 was obtained, where the p value <0.05. In the perception factor, the majority of respondents have a positive perception with the category of being obedient in making ANC visits. Based on the results of the chi-square statistical test with  $\alpha$  0.05, the p-value = 0.017 was obtained. In the parity factor, the majority of respondents have primigravida parity with the category of being obedient in making ANC visits. Based on the results of the statistical test, the p-value = 0.039 was obtained.

**Table 3.** Relationship between Family Support, Distance of Residence, Perception and Parity with Compliance with ANC Visits in Pregnant Women

Variables and Categories	ANC Visit Compliance						Sig
	Not obey		Obedient		Total		
	f	%	f	%	F	%	
<b>Family Support</b>							
Support	2	8.0	13	52.0	15	60.0	0,000
Does not support	9	36.0	1	4.0	10	40.0	
<b>Distance of Residence</b>							
At close range	1	4.0	11	44.0	12	48.0	0.002
Long distance	10	40.0	3	12.0	13	52.0	
<b>Perception</b>							
Positive	3	12.0	11	44.0	14	56.0	0.017
Negative	8	32.0	3	12.0	11	44.0	
<b>Parity</b>							
Primigravida	2	8.0	9	36.0	11	44.0	0.039
Multigravida	2	8.0	4	16.0	6	24.0	
large multigravida	7	28.0	1	4.0	8	8.0	

## DISCUSSION

### Relationship between Family Support and ANC Visit Compliance in Pregnant Women

The results of this study are in line with the study conducted by Mila Syari (2019) entitled "The Relationship between Family Support and Compliance with ANC Visits in Pregnant Women in the Third Trimester". Of the 30 pregnant women, the majority received family support, 16 people (53.3%) with 12 people (40%) who were compliant with ANC visits and 4 people (13.3%) who were not compliant. The results of the statistical test with a 95% confidence level with  $\alpha = 0.05$  obtained a p-value of 0.030, which means that family support has a significant relationship with compliance with ANC visits.(13).

This is also relevant to the results of Mahadewi's research (2018) with the results of this study showing that there is a significant relationship between family support and compliance with ANC visits with a p-value = 0.010.(14).

Pregnant women really need family support to pay attention and accompany them during pregnancy check-ups because with the support of the family, especially the husband, the mother will feel comfortable and not experience stress during pregnancy check-ups or childbirth. Family support is the most important thing for a pregnant woman. Increasing evidence shows that women who are cared for and loved by their partners or family during pregnancy will show fewer emotional and physical symptoms, fewer labor complications, and make it easier to adjust during the postpartum period.(7). Family support is the attitude, actions and acceptance of the family towards the sick patient. Family members view that people who are supportive are always ready to provide help and assistance if needed.(15).

Researchers assume that family support is closely related to maternal compliance in making ANC visits. In this case, the mother will feel moved to make ANC visits if she gets enough support from her family and husband. The family functions as a collector and disseminator of information about the world. Explaining about giving advice, suggestions, information that can be used to reveal a problem. By getting family support, the mother will be obedient in making antenatal care visits at least six times.

### **Relationship between Distance of Residence and Compliance with ANC Visits in Pregnant Women**

The results of this study indicate a significant relationship between the distance of residence and the clinic on compliance with ANC visits. The further the distance of residence from the clinic, the more likely it is that mothers will be non-compliant in making ANC visits. This can be seen from 13 people who live far from the clinic, only 3 pregnant women are compliant in making ANC visits.

These results are in line with research conducted by Jitasati Tarigan Sibero with research results showing that there is a relationship between the distance of health facilities and ANC visits at the Bumi Sehat Meulaboh Clinic, West Aceh District, as evidenced by the value of  $\rho (0.022) < \alpha (0.05)$ (16).

This research is in line with that conducted by Felisbela with the results of statistical analysis showing that there is a significant influence between the distance of health services and antenatal care visit behavior or it can be explained that the existing research hypothesis shows that the alternative hypothesis ( $H_a$ ) is accepted and the null hypothesis ( $H_o$ ) is rejected, with the Chi-Square test with a  $p$ -value = 0.000 ( $p < 0.05$ )(17).

Distance of residence is one of the variables that support pregnant women in conducting ANC examinations. The closer the distance of the pregnant woman's house to the health service, the faster the time needed to get to the place. The closeness of the distance will make it easier for pregnant women to frequently conduct pregnancy checks. The closer the distance of the residence to the health service, the greater the chance of the number of visits to the service facility, and vice versa, the further the residence is from the health service, the fewer visitors.(8).

According to the Ministry of Health of the Republic of Indonesia, the relationship between the location of the examination and the place of residence of the pregnant woman can be measured by the distance unit, travel time, or travel costs depending on the type of service and the type of resources available. The general geographical conditions of rural residents are far from health centers and hospitals as places for pregnancy examinations, pregnant women often find it difficult to have their pregnancy examinations.(18).

According to the researcher's assumption, respondents who live close to the antenatal care center will tend to be compliant. A close residence and adequate facilities will make it easier for pregnant women to check their pregnancies and be able to carry out ANC regularly. While a far residence will tend to be non-compliant in carrying out antenatal care. However, if the antenatal care center has good service, it will provide satisfaction to pregnant women so that even though the distance between the pregnant woman's residence and the clinic is far, the mother will still be compliant in making visits.

### **Relationship between Perception and Compliance with ANC Visits in Pregnant Women**



This result is in accordance with the research conducted by Quadriani (2017) on "Perception of Pregnant Women About High-Risk Pregnancy with Compliance in Conducting Antenatal Care Visits in Begawat Village, Bumijaya District, Tegal Regency in 2016". From the chi-square statistical test with a value of  $\alpha = 0.05$ , a p-value of 0.030 was obtained so that there can be a meaningful relationship between the perception of pregnant women about high-risk pregnancy and compliance with antenatal care in Begawat Village, Bumijaya District, Tegal Regency.

The results of this study are in line with research conducted by Ermaya (2015) that the results of the correlation test obtained a correlation coefficient between the service perception variable and the regularity of antenatal care of  $r = 0.852$  with a significance (sig) of 0.000 (significance  $< 0.05$ ), meaning that there is a very strong positive relationship between the service perception variable and the regularity of antenatal care.(19).

Bimo Walgito stated that perception is a process that occurs within an individual that begins with the receipt of a stimulus, until the stimulus is realized and understood by the individual so that the individual can recognize themselves and the conditions around them. A good perception of pregnant women will be able to change the mindset, behavior and attitude for pregnant women to be obedient in carrying out ANC.(20).

Perception includes two processes, namely bottom-up or data driven processing (stimulation aspect), and top-down or conceptually driven processing (aspect of a person's knowledge). The results of a person's perception of an object, besides being influenced by the appearance of the object itself, also know a person about the object. There are three aspects of perception that are considered very relevant to the human condition, namely sensory recording, pattern recognition and attention.(20).

Researchers assume that the better the perception of pregnant women about antenatal care, the greater the possibility of pregnant women complying with antenatal care. Pregnant women who have a good perception will try their best and do anything for their health and also their fetus, one of which is by making regular ANC visits. In addition, a good perception can be obtained from the services provided to the mother, namely in accordance with the established standards, service officers are friendly to pregnant women and provide opportunities for pregnant women to express their opinions about their pregnancy, and adequate facilities also encourage good perceptions

of pregnant women towards the clinic so that it will encourage pregnant women to comply in making antenatal care visits.

### **The Relationship between Parity and ANC Visit Compliance in Pregnant Women**

Based on the results of the study, it is known that the majority of primigravida mothers' parity is 11 people, 9 of whom are compliant in making ANC visits and only 2 people are not compliant. While mothers with grademultigravida parity tend to be less compliant in making ANC visits. The results of statistical tests show a significant relationship between parity and compliance with ANC visits with a p-value = 0.039. This is because mothers who are pregnant for the first time are something new so they have high motivation in doing their pregnancy checks compared to mothers with multigravida and grandemultigravida parity.

This is in accordance with the research conducted by Sari (2019), with the results of the chi square statistical test obtained a p value = 0.012 which means the p value is less than 0.05 (0.012 <0.05). Thus  $H_0$  is rejected, this shows that there is a relationship between parity and K4 visits in Karimun District, Karimun Regency(21).

This study is also in line with that conducted by Wulandatika with the results of statistical tests on the relationship between parity and maternal compliance in making Antenatal Care visits obtained a p value = 0.017 which means there is a significant relationship. The OR value obtained is 2.105 (95% CI: 1.181-3.752), meaning that mothers who have a risky parity are 2.105 times more compliant in making Antenatal Care visits compared to mothers who have a non-risky parity.(22).

Parity is a condition related to the number of children born. The parity of the second and third child is the safest parity in terms of maternal mortality. At high parity more than three have a higher maternal mortality rate. Therefore, mothers who are pregnant with their first child and more than three children must check their pregnancy as often as possible so as not to be at risk of maternal death. At low parity, pregnant mothers do not really understand about pregnancy and the importance of pregnancy check-ups.(23).

First-time parity tends to be risky because the mother's uterus is receiving the results of conception for the first time. The flexibility of the uterine muscles is still limited for fetal growth. In primigravida mothers, pregnancy is the first thing for them so that indirectly they will pay more attention to their pregnancy. They tend to think that

pregnancy check-ups are something new. However, multigravida mothers already have experience checking their pregnancy and a history of giving birth. They think they have had experience so they tend to be less motivated to do the next pregnancy check-up.(8). According to the researcher's assumption, mothers who are pregnant for the first time are new so they have high motivation in conducting antenatal care visits. On the other hand, mothers who have had more than one child assume that they already have experience so that pregnant women rarely check their pregnancy because the mother already knows what to do to maintain the health of her pregnancy. This causes pregnant women to be non-compliant in conducting antenatal care visits.

## **CONCLUSION**

Based on the results and discussion of the research, the following conclusions can be drawn:

1. There is a relationship between family support and compliance with ANC visits in pregnant women at the Ridho Pratama Clinic with a p-value = 0.000.
2. There is a relationship between distance of residence and compliance with ANC visits in pregnant women at the Ridho Pratama Clinic with p-value = 0.002.
3. There is a relationship between perception and compliance with ANC visits in pregnant women at the Ridho Pratama Clinic with a p-value = 0.031.
4. There is a relationship between parity and compliance with ANC visits in pregnant women at the Ridho Pratama Clinic with a p-value = 0.039.

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