



## Factors Associated with Antenatal Care (ANC) Visits in the Lubuk Buaya Health Center Working Area, Padang City

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### ABSTRACT

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The Maternal Mortality Rate (MMR) in Indonesia in 2021 is 7,389 cases, which shows an increase compared to 2020. The high maternal mortality rate (MMR) in Indonesia is related to many factors, including the quality of behavior of pregnant women who do not use antenatal care in pregnancy health services. This study aims to determine the relationship between these factors and antenatal care visits (ANC) in the Lubuk Buaya Health Center, Padang City, working area. This type of research used quantitative research with a cross-sectional study design; the sample in this study were all postpartum mothers who were in the Working Area of the Lubuk Buaya Health Center, Padang City, totaling 82 people. The sampling technique in this study is total sampling. Data were obtained from questionnaires filled out by respondents and analyzed using the chi-square statistical test ( $p \leq 0.05$ ). The results showed that most of the respondents had complete antenatal care visits, were not at risk of age, had good knowledge, a good attitude, did not work, and had support from their families. The results of the bivariate analysis showed that there was a significant relationship between age ( $p=0.003$ ), knowledge ( $p=0.049$ ), attitude ( $p=0.039$ ), employment ( $p=0.000$ ), family support ( $p=0.002$ ), and antenatal care visits. There is a relationship between age, knowledge, attitudes, work, family support, and antenatal care visits.

### INTRODUCTION

Maternal mortality is still a big problem in all countries, especially in poor and developing countries. In 2017, the maternal mortality rate (MMR) in the world was 211 per 100,000 person live births, WHO estimates that every day around 810 mothers die due to pregnancy and childbirth from preventable causes and 94% of all deaths occur in low and lower middle income countries<sup>1</sup>. The number of maternal deaths compiled from family health program records at the Ministry of Health in 2020 showed 4,627 deaths in Indonesia. In 2021 there were 7,389 deaths in Indonesia, this number shows an increase compared to 2020<sup>2,3</sup>. Meanwhile, the Maternal Mortality Rate (MMR) for the city of Padang was found to be 21 cases, this number has increased compared to 2019, namely 16 cases<sup>2</sup>. Efforts to



accelerate the reduction of the Maternal Mortality Rate (MMR) can be carried out by ensuring that every mother is able to access quality maternal health services, such as pregnant women's health services, birth assistance by trained health workers in health service facilities, post-natal care for mothers and babies, nursing care, specialty and referral if complications occur. In this case, the government has developed an antenatal care program as an effort to reduce the Maternal Mortality Rate (MMR)<sup>3</sup>.

*Antenatal care* or often abbreviated as ANC, is one of the components that is mandatory during pregnancy, where antenatal is a pregnancy examination that focuses on pregnancy observation, pregnancy education, and includes preparing the mother for childbirth which is carried out by health workers<sup>4</sup>. The latest antenatal care examinations are in accordance with service standards, namely a minimum of 6 examinations during pregnancy, and a minimum of 2 examinations by a doctor in the first and third trimesters<sup>3</sup>. An assessment of the implementation of health services for pregnant women can be done by looking at the coverage of K1, K4 and K6<sup>5</sup>. From 2007 to 2021, health service coverage for K4 pregnant women tends to fluctuate. In 2021 the K4 figure was 88.8%, this figure increased compared to the previous year. The increase in K4 coverage could be influenced by new adaptations to the COVID-19 pandemic situation in 2021, because in the previous year there were still many restrictions on almost all routine services, including maternal health services. Pregnant women's health services (K4) in 2021 show that nationally they have achieved the 2021 RPJMN target of 88.8% of the target of 85%. Based on the results of the 2021 Indonesian Health Profile report, it was found that West Sumatra Province had health service coverage for pregnant women in K4 of 74.7, this means that West Sumatra province has not yet met the 2021 RPJMN target of 85%. Padang City's target for program achievement for K1 = 99% and K4 = 95%, and Padang City has K1 and K4 achievements of 90.1% and 94.4%. Lubuk Buaya Health Center is one of the health centers in Padang City which has the most pregnant women with the number of pregnant women, namely 1347 people in 2021. Data from the Padang City Health Service report in 2021 shows that Lubuk Buaya Health Center is the health center with the lowest K1 and K4 coverage in the city Padang with K1 coverage is only 64.3%, while K4 coverage is 55.2%, which has not reached the set target.

There are many factors that cause this situation, there are predisposing factors (age, education, employment, knowledge, attitudes), enabling factors (facilities and infrastructure, transport, family income, distance and health facilities) and reinforcing factors (attitudes and behavior health workers, religious leaders, community leaders, and family support) which can influence a person's behavior, including influencing the behavior of pregnant women in attending antenatal care visits<sup>6</sup>. Research conducted by Dinyanti (2021), revealed that antenatal care provided by pregnant women is influenced by several factors such as knowledge, age, employment, education and the quality of antenatal care services. Limited maternal knowledge is one of the factors that influences antenatal care visits by pregnant women<sup>7</sup>. Based on this background, researchers are interested in conducting further studies regarding "Factors related to antenatal care visits in the Lubuk Buaya Health Center Working Area, Padang City."

## METHOD

This type of research uses quantitative research with a cross sectional study design, where the research design involves measuring the independent variable and the dependent variable once at the same time. This research was conducted in the working area of the Lubuk Buaya Community Health Center, Padang City. The research was carried out on January 16-25, 2023. The population for this research was postpartum mothers in the Lubuk Buaya Health Center Working Area, Padang City with inclusion criteria: willing to be a respondent, having a KIA book with complete visit data and exclusion criteria: respondents were uncommunicative and gave birth spontaneously preterm. The sampling



technique used in this research was total sampling. The reason for using total sampling is because the population is not too large, namely 82 people and also aims to ensure that all members of the population can be studied. Univariate analysis was carried out on each variable from the research results in the form of frequency distribution of the variables. The data is presented in the form of a frequency distribution table and description. Bivariate analysis was carried out to see the relationship between the dependent and independent variables. The relationship between these variables was analyzed using the chi-square test. The value used to see whether there is a relationship between two variables is p (probability), so it is said to be significant if  $p < 0.05$ .

## RESULTS AND DISCUSSION

### Respondent Characteristics

Table 1.  
Frequency Distribution of Respondent Characteristics in the Lubuk Buaya  
Health Center Working Area, Padang City

Respondents Characteristics	f	%
<b>Antenatal Care Visit</b>		
Incomplete	25	30,5
Complete	57	69,5
<b>Age</b>		
Risky	11	13,4
No Risk	71	86,6
<b>Knowledge</b>		
Not Good	20	24,4
Good	62	75,6
<b>Attitude</b>		
Negative	12	14,6
Positive	70	85,4
<b>Work</b>		
Work	23	28,0
Doesn't work	59	72,0
<b>Family support</b>		
Does not support	5	6,1
Support	77	93,9
<b>Education</b>		
Junior High School	6	7,3
Senior High School	47	57,3
College	29	35,4
<b>Amount</b>	<b>82</b>	<b>100,0</b>

Based on Table 1 above, it can be seen that of the 82 respondents, 30.5% did not complete the antenatal care visit, 13.4% were at risk, 24.4% had poor knowledge, 14.6% had a negative attitude, 28% were working, 6.1% did not receive support from family, and 7.3% had a junior high school education.



### Relationship between Age and Antenatal Care Visits

Table 2.

The Relationship between Age and Antenatal Care Visits in the Lubuk Buaya Health Center Working Area, Padang City

Age	Antenatal Care Visit				Total		p-value
	Incomplete		Complete				
	f	%	f	%	f	%	
Risky	8	72.7	3	27.3	11	100	0.003
No Risk	17	23.9	54	76.1	71	100	
Amount	25	30.5	57	69.5	82	100	

Based on table 2, it shows that of the 11 respondents at risk, 8 people (72.7%) did not complete the antenatal care visit, and 3 people (27.3%) completed the antenatal care visit. Based on the results of the analysis using the chi-square test, the p-value was 0.003 ( $p > 0.05$ ), so  $H_a$  was accepted, meaning there was a relationship between age and antenatal care visits.

Age is an individual's age from birth to birthday. The older you are, the more mature a person's mindset, attitude and knowledge will be, so that a person will be motivated to make antenatal care visits and know the importance of antenatal care. Age really determines the mother's health status, mothers are said to be at high risk if they are under 20 years old and over 35 years old. It is feared that those under 20 years of age have a risk of complications that are closely related to women's reproductive health, those over 35 years of age have a high risk due to deterioration in the function of the reproductive organs. This disorder is not only physical because the development of the function of the reproductive organs is not yet optimal, but psychologically they are not ready to bear the burden of moral, mental and emotional turmoil that arises as well as lack of experience in carrying out antenatal care examinations<sup>13</sup>. Age is an important factor in pregnant women mothers aged 20-35 are more likely to complete antenatal care visits because they still feel that antenatal care visits are an important thing to do so that mothers know the condition of the mother and fetus. Meanwhile, pregnant women who are in the risk age category <20 years tend not to understand the importance of pregnancy checks, and mothers aged >35 years tend to be indifferent to pregnancy checks because they have had a lot of experience and think pregnancy is a natural thing experienced by women, or the mother didn't even know she was pregnant.

### Relationship between Knowledge and Antenatal Care Visits

Table 3.

The Relationship between Knowledge and Antenatal Care Visits in the Lubuk Buaya Health Center Working Area, Padang City

Knowledge	Antenatal Care Visit				Total		p-value
	Incomplete		Complete				
	f	%	f	%	f	%	
Not good	10	50.0	10	50.0	20	100	0.049
Good	15	24.2	47	75.8	62	100	
Amount	25	30.5	57	69.5	82	100	



Based on Table 3, it shows that of the 20 respondents with good knowledge, 10 people (50.0%) did not complete the antenatal care visit, and 10 people (50.0%) completed the antenatal care visit. Based on the results of the analysis using the chi-square test, the p-value was 0.049 ( $p > 0.05$ ), so  $H_a$  was accepted, meaning there was a relationship between knowledge and antenatal care visits.

The same research was conducted by Oktova in 2019, that the majority of respondents had good knowledge and had a relationship between respondents' knowledge and antenatal care visits. Good knowledge of the respondent means that someone understands and understands the benefits of antenatal care visits for their own health and that of their fetus, so that it will become a necessity for the mother during pregnancy<sup>16</sup>.

Knowledge is a level the depth a person can face, deepen their attention as humans solve problems regarding new concepts and the ability to learn. Having knowledge about pregnancy means that the mother has been able to understand and face problems in pregnancy. After having knowledge, someone will try to use the material they have learned in real situations and conditions. Pregnant women with good knowledge are more likely to utilize antenatal care visits than pregnant women with low knowledge. This is because with better knowledge, pregnant women are more open to utilizing health services. With this knowledge, pregnant women will increasingly understand the benefits of a health behavior that they will carry out, thereby increasing the mother's behavior in efforts to maintain and protect her pregnancy through antenatal care visits<sup>14</sup>.

According to researchers, maternal knowledge is very important in carrying out antenatal care visits, because mothers who have good knowledge will carry out complete antenatal care visits. Some mothers who have good knowledge say that antenatal care checks are important for the health of the mother and fetus so that the mother completes the visit, however, some mothers who have good knowledge but do not complete the visit do this because the mother does not have support from the family, is at risk of age, works, has negative attitude, the mother also said that the antenatal care check-up was important but the mother only made the antenatal care visit when there was a complaint, so the antenatal care visit was incomplete.

### Relationship between Attitude and Antenatal Care Visits

Table 4.

The Relationship between Attitude and Antenatal Care Visits in the Lubuk Buaya Health Center Working Area, Padang City

Attitude	Antenatal Care Visit				Total		p-value
	Incomplete		Complete				
	f	%	f	%	f	%	
Negative	7	58.3	5	41.7	12	100	0.039
Positive	18	25.7	52	74.3	70	100	
Amount	25	30.5	57	69.5	82	100	

Based on table 4, it shows that of the 12 respondents with negative attitudes, 7 people (58.3%) did not complete the antenatal care visit, and 5 people (41.7%) completed the antenatal care visit. Based on the results of the analysis using the chi-square test, the p-value was 0.039 ( $p > 0.05$ ), so  $H_a$  was accepted, meaning there was a relationship between attitude and antenatal care visits.

Attitude is a view but in that case it is still different from the knowledge that people have. Knowledge alone is not a driver like attitude. Knowledge about an object only becomes an attitude if that knowledge is accompanied by a readiness to act in accordance with that knowledge. To show an attitude into a real action requires supporting factors or enabling conditions. Supporting factors are:



(1) predisposing factors (knowledge, attitudes, beliefs, perceptions), (2) supporting factors (access to health services, skills and references), (3) driving factors manifested in the form of support from family, community leaders and health workers. Pregnant women's attitudes towards pregnancy examination services influence the completeness of their antenatal care visits. A positive attitude or good response reflects concern for the health of herself and her fetus so that it can increase the number of visits. Meanwhile, negative attitudes make pregnant women lose their motivation to visit antenatal care.

According to researchers' assumptions, a person's attitude is influenced by personal experience, culture, other people who are considered important, mass media, and emotional factors within the individual. To increase the mother's positive attitude towards the importance of antenatal care, it can be done through health education and approaches to community leaders. The research results obtained in the field, mothers who have a positive attitude will carry out a complete examination because the mother knows the importance of carrying out antenatal care visits, some respondents who have a negative attitude said that only carrying out antenatal care visits when there are complaints so that the coverage of antenatal care visits is incomplete.

### Relationship between Employment and Antenatal Care Visits

Table 5.

The Relationship between Employment and Antenatal Care Visits in the Lubuk Buaya Health Center Working Area, Padang City

Work	Antenatal Care Visit				Total		p-value
	Incomplete		Complete				
	f	%	f	%	f	%	
Work	16	69.6	7	30.4	23	100	0,000
Doesn't work	9	15.3	50	84.7	59	100	
Amount	25	30.5	57	69.5	82	100	

Based on table 5, it shows that of the 11 who worked, 16 people (69.6%) did not complete the antenatal care visit, and 7 people (30.4%) completed the antenatal care visit. Based on the results of the analysis using the chi-square test, the p-value was 0.000 ( $p > 0.05$ ), so  $H_a$  was accepted, meaning there was a relationship between work and antenatal care visits.

The employment status of pregnant women who work with high and busy activities prefer to prioritize their career rather than their own health, so it is difficult to comply with antenatal care visits compared to housewives who have more free time to be able to arrange and schedule antenatal care visits regularly. optimal. Many mothers work to earn a living, both for themselves and their families. The work factor influences mothers as a problem that arises from mothers' inactivity in visiting health services because they earn a living to meet their needs, resulting in the lack of time to visit antenatal care<sup>15</sup>.

According to the researcher's assumption, employment status is closely related to the completeness of antenatal care visits for pregnant women. According to the results obtained during the research, mothers said they were busy with their work, so the mothers did not make antenatal care visits. Mothers said that if there were complaints, mothers made antenatal care visits, but some mothers did. working, there is a right person to make an antenatal care visit, the mother said that even though the mother is working, the mother still has to make an antenatal care visit for the sake of the mother's health, as well as to find out the development of the fetus.





### Relationship between Family Support and Antenatal Care Visits

Table 6.

The Relationship between Family Support and Antenatal Care Visits in the Lubuk Buaya Health Center Working Area, Padang City

Family Support	Antenatal Care Visit				Total		p-value
	Incomplete		Complete				
	f	%	f	%	f	%	
Does not support	5	100	0	0.0	5	100	0.002
Support	20	26.0	57	74.0	77	100	
Amount	25	30.5	57	69.5	82	100	

Based on table 6, it shows that of the 5 respondents who did not receive family support, 5 people (100%) did not complete their antenatal care visits. Based on the results of the analysis using the chi-square test, the p-value was 0.002 ( $p > 0.05$ ), so  $H_a$  was accepted, meaning there was a relationship between family support and antenatal care visits.

Pregnant women who receive family support but do not utilize antenatal care services due to the lack of awareness of pregnant women about the importance of pregnancy checks. Positive support from the family will have a positive impact on the mother's arrival at a health facility for a pregnancy check-up, this may be due to the high level of awareness among respondents about pregnancy visits. In accordance with Notoatmodjo's 2016 theory which states that if behavior is based on knowledge, awareness and positive attitudes, then the behavior will be long lasting. On the other hand, if the behavior is not based on knowledge and awareness it will not last long<sup>9</sup>.

According to researchers' assumptions, almost all pregnant women receive good support from their families/husbands in carrying out pregnancy checks at health services. The support in question is like being reminded of the examination schedule, being accompanied to the health check-up location, being reminded to take vitamins and all things that can make pregnant women comfortable and feel cared for and loved by their family/husband.

### Relationship between Education and Antenatal Care Visits

Table 7.

The Relationship between Education and Antenatal Care Visits in the Lubuk Buaya Health Center Working Area, Padang City

Education	Antenatal Care Visit				Total		p-value
	Incomplete		Complete				
	f	%	f	%	f	%	
Junior High School	4	66.7	2	33.3	6	100	0.042
Senior High School	10	21.3	37	78.7	47	100	
College	11	37.9	18	62.1	29	100	
Amount	25	30.5	57	69.5	82	100	

Based on table 7, it shows that of the 6 respondents who were in the final education category of junior high school, 4 people (66.7%) had incomplete antenatal care visits, and 2 people (33.3%) had completed antenatal care visits. Based on the results of the analysis using the Chi-square test, the p-



value was 0.042 ( $p > 0.05$ ), so  $H_a$  was accepted, meaning there was a relationship between education and antenatal care visits.

The level of education is a factor that plays a very important role in dealing with the process of pregnancy and childbirth, because the level of education can indicate a person's health status. If the mother knows a lot of information about the importance of complying with ANC, the mother will know how to prevent the risk of pregnancy so that it can help reduce the Maternal Mortality Rate (MMR), which is still high. Therefore, a highly educated pregnant mother will more easily receive information and be willing to carry out continuous antenatal care visits<sup>21</sup>. Pregnant women who are highly educated will have their pregnancy checked appropriately in order to maintain the health of themselves and the child in their womb. Based on the description above, supported by theoretical concepts and related research, it can be concluded that the majority of pregnant women's education levels are in the high school and tertiary category, experiencing compliance with antenatal care visits. It can be concluded that higher education will increase high motivation to comply with antenatal care visits so that compliance with antenatal care visits is more common in the higher education category. Because pregnant women with high education will be different from pregnant women with low education. A pregnant woman's low level of education means she is slow in adopting new knowledge, especially matters relating to compliance with antenatal care.

## CONCLUSION

Most of the respondents in the working area of the Lubuk Buaya Health Center, Padang City, were in the no-risk age category, good knowledge, positive attitude, not working, had family support with a high school/vocational education, and complete antenatal care visit status. There is a relationship between age, knowledge, attitude, employment, support and education with antenatal care visits.

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