

Factors Associated with the Irregularity of Antenatal Care Visits at the Amandraya Health Center in South Nias Regency in 2022

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ABSTRACT

Antenatal care is an activity of supervising pregnant women to prepare pregnant women as well as possible both physically and mentally, as well as saving mothers and babies during pregnancy, childbirth and the postpartum period. In South Nias District the coverage of Antenatal Visits 1 (K1) was 87.10% in 2019 and K4 was 73.32. At the Amandraya Health Center the coverage of K1 to K4 in 2021 has not reached the expected target of 95%. The aim of this study was to find out the factors associated with the irregularity of antenatal care visits at the Amandraya Health Center in South Nias Regency in 2022. This type of research is an analytic observational study using a cross sectional approach. The population was all pregnant women at the Amandraya Health Center in South Nias Regency, namely 217 people. The sample in this study were 73 people obtained through simple random sampling technique. Data analysis was carried out to determine the distribution of frequencies and percentages of each variable to be studied which included: age, education, employment, parity, income and staff support. Data analysis was performed by statistical test using chi-square. There is a relationship between knowledge ($p=0.001$) and income ($p=0.007$), mothers and irregular antenatal care visits at the Amandraya Health Center in South Nias Regency in 2022. There is no relationship between mother's education, number of children and health workers and irregular antenatal care visits. It is suggested to the staff of the Amandraya Health Center in South Nias Regency to increase counseling activities so that pregnant women's knowledge about antenatal care increases and antenatal care visits can be carried out regularly from the 1st to the 3rd trimester.

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1. INTRODUCTION

The maternal mortality rate (MMR) is an indicator that can describe the welfare of society in a country. According to data from the World Health Organization (WHO), the global maternal mortality rate in 2015 was 216 per 100,000 live births or an estimated 303,000 maternal deaths, with the highest number in developing countries, namely 302,000 deaths. The maternal mortality rate in developing countries is 20 times higher than the maternal mortality rate in developed countries, namely 239 per 100,000 live births, while in developed countries it is only 12 per 100,000 live births in 2016 (WHO, 2019).

In Indonesia, the Maternal Mortality Rate (MMR) is still relatively high compared to other countries, even though the Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) are

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important indicators in determining the degree of public health. AKI refers to the number of women who die from a cause of death related to pregnancy disorders or their treatment (excluding accidents or incidental cases) during pregnancy, childbirth and in the postpartum period (42 days after delivery) without taking into account the length of pregnancy per 100,000 live births. Based on the 2017 Indonesian Demographic and Health Survey (IDHS), the maternal mortality rate (MMR) is 359 per 100,000 live births and the infant mortality rate (IMR) is 32 per 1,000 live births. This figure is still relatively high when compared to neighboring countries, but in 2015 based on the Inter-Census Population Survey (SUPAS), the MMR in Indonesia has decreased to 305/100,000 live births (Kemenkes, 2015).

Antenatal care (ANC) is a planned program in the form of observation, education and medical treatment for pregnant women to obtain a safe and satisfying pregnancy and delivery process. Antenatal care services are the frequency of prenatal checks at existing health facilities/facilities, namely doctors, midwives, health centers, hospitals and other private health facilities. Antenatal care should be carried out at least 4 times during pregnancy, namely once in the first trimester, once in the second trimester and 2 times in the third trimester (Saifuddin, 2015).

Antenatal care is very important for pregnant women to know because it can reduce maternal and infant mortality by knowing the risks and complications that occur during pregnancy, childbirth and the postpartum period (Prawirohardjo, 2017). Antenatal care is one of the health programs in Indonesia to help reduce maternal and infant mortality. This is considered important because every year there are around eight million women who suffer from complications of pregnancy and more than eleven women (compared to one in five thousand women in developed countries) die due to pregnancy and childbirth (Rukiyah, 2019).

Health services for pregnant women are realized through the provision of antenatal care at least 4 times during pregnancy, with a distribution of at least 1 time in the first trimester (0-12 weeks of gestation), at least 1 time in the second trimester (12-24 weeks of gestation), and at least 2 times in the third trimester (gestational age 24 weeks - birth). The service time standard is recommended to ensure protection for pregnant women and/or the fetus, in the form of early detection of risk factors, prevention and early treatment of pregnancy complications (Choli, 2017).

The achievement of health services for pregnant women can be assessed using the K1 and K4 Coverage indicators. Coverage K1 is the number of pregnant women who have received antenatal care for the first time by health personnel, compared to the target number of pregnant women in one work area within one year. Meanwhile K4 coverage is the number of pregnant women who have received standard antenatal care services at least 4 times according to the recommended schedule, compared to the target number of pregnant women in one work area within one year. This indicator shows access to health services for pregnant women and the level of compliance of pregnant women in having their pregnancies checked by health workers (Manuaba, 2017)).

Based on the report from the North Sumatra Provincial Health Office, the coverage of K1 in 2018 and 2019 was 93%, there was no increase and the coverage of K4 in 2018 was 85.92% to 85.85% in 2019 (Dinkes Provinsi Sumut, 2019). In South Nias Regency the coverage of K1 was 87.10% in 2019 and K4 was 73.32% (Dinkes Kab. Nias Selatan, 2019). At the Amandraya Health Center the coverage of K1 to K4 in 2021 has not reached the expected target of 95%. From these data it is known that the coverage of antenatal care in the Amandraya Health Center area is still low and has not yet reached the national target (Profil Kesehatan Pusk Amandraya, 2020).

The results of the researcher's interviews with 10 pregnant women at the Amandraya Health Center, found that 2 pregnant women had never had a pregnancy check-up. Pregnant women who have never had a pregnancy check-up at a health service say that pregnancy is a normal thing that every woman will face, so there is no need for special prenatal checks, especially for experienced mothers or mothers who have had more than 1 child. Mothers who carry out pregnancy checks only once until entering the third trimester are carried out at the beginning of pregnancy to ascertain whether pregnancy has really occurred. This is because besides being experienced, mothers also say they are lazy to go to the health service to have their pregnancy checked because they don't feel any complaints during pregnancy, such as back pain, nausea and other complaints.

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2. METHOD

This type of research is an analytic observational study using a cross sectional approach. In this study, the population was all pregnant women who were willing to be interviewed at the Amandraya Health Center in South Nias Regency in 2022. The total population obtained was 217 people. Based on the calculations, the sample size required for this research is 54 respondents. Samples were obtained using simple random sampling, where each member of the population has the same opportunity to be taken as a sample. Primary data collection was obtained directly from pregnant women using a questionnaire. Secondary data collection was carried out by taking data from documents or records obtained from the South Nias District Health Office and the Amandraya Health Center. Data analysis was carried out by statistical tests using chi-square, to see a relationship between the independent variable and the dependent variable with a degree of significance $\alpha = 0.05$.

3. RESULTS AND DISCUSSION

Characteristics of Respondents

Mother's age was the most in the age category not at risk of 20-35 years, namely as many as 57 people (78.1%). The education level of the majority of respondents, namely SMA, was 39 people (53.4%). The most parity of respondents is 2-4 children, namely as many as 38 people (52.1%). The most family income is under Rp. 1,750,000, - as many as 51 people (61.6%). This can be seen in table 1. the following :

Table 1. Frequency of Respondents Based on Characteristics at the Amandraya Health Center in South Nias Regency in 2022

Characteristics of Respondents	f	%
Age		
<20 years	5	6,8
20-35 years	57	78,1
>35 years	11	15,1
Total	73	100,0
Education		
Elementary	9	12,3
Junior	17	23,3
Senior	39	53,4
Bachelor	8	11,0
Total	73	100,0
Parity		
1	24	33,0
2-4	38	52,0
>4	11	15,0
Total	73	100,0
Income		
<Rp. 1.750.000 (UMR),-	51	61,6
≥Rp. 1.750.000 (UMR),-	22	38,4
Total	73	100,0

Bivariate Analysis

Based on the results of cross-tabulation between mother's age and antenatal care visits, it was found that out of 5 respondents aged <20 years, 3 respondents (60.0%) made regular antenatal care visits and 2 respondents (40.0%) made antenatal visits irregularly, while out of 57 respondents aged 20-35 years, 28 respondents (49.1%) made non-regular antenatal care visits and 29 respondents

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(50.9%) made regular antenatal care visits and 11 respondents aged >35 year there were 6 who made regular antenatal visits and 5 respondents made irregular antenatal care visits. The results of the statistical test obtained a value of $p = 0.704$, meaning that there is no relationship between the age of the mother and the irregularity of antenatal care visits at the Amandraya Health Center in South Nias Regency, as shown in table 3. below:

Table 3. Relationship between Mother's Age and Irregular Antenatal Care Visits at the Amandraya Health Center in South Nias Regency in 2022

Antenatal care

	Mother'age	Irregular		Regular		Total		P
		f	%	f	%	f	%	
1	<20 years	2	40,0	3	60,0	5	100,0	0,704
2	20-35 years	28	49,1	29	50,9	57	100,0	
3	>35 years	5	45,5	6	54,5	11	100,0	

Based on the results of the cross tabulation between education and antenatal care visits, it was found that out of 9 respondents with elementary education, there were 4 respondents (44.4%) who made regular antenatal care visits and 5 respondents (55.6%) who made irregular antenatal care visits. Of the 17 respondents with junior high school education, 6 respondents (35.5%) had regular antenatal care visits and 11 respondents (64.7%) had irregular antenatal care visits. Of the 39 respondents with high school education, 22 respondents (56.4%) made regular antenatal care visits and 17 respondents (43.6%) made irregular antenatal care visits. Of the 8 respondents with university education, there were 6 respondents (75.0%) who made regular antenatal care visits and 2 respondents (25.0%) who made irregular antenatal care visits. The results of the statistical test obtained a value of $p = 0.250$, meaning that there is no relationship between education and irregular antenatal care visits at the Amandraya Health Center in South Nias Regency, as shown in table 4 below:

Table 4. Relationship between Education and Irregular Antenatal Care Visits at the Amandraya Health Center in South Nias Regency

		Antenatal care						P
	Pendidikan	Irregular		Regular		Total		
		f	%	f	%	f	%	
1	Elementary	5	55,6	4	44,4	9	100,0	0,250
2	Junior	11	64,7	6	35,3	17	100,0	
3	Senior	17	43,6	22	56,4	39	100,0	
4	Bachelor	2	25,0	6	75,0	8	100,0	

Based on the results of cross tabulation between the number of children (parity) and antenatal care visits, it was found that out of 24 respondents with a total of 1 child, there were 13 respondents (54.2%) who made regular antenatal care visits and 11 respondents (45.8%) who make regular antenatal care visits. Of the 38 respondents with 2-4 children, 21 respondents (55.3%) had regular antenatal care visits and 17 respondents (44.7%) had irregular antenatal care visits. Out of 11 respondents with >4 children, 4 respondents (36.4%) had regular antenatal care visits and 7 respondents (63.6%) had irregular antenatal care visits. The results of the statistical test obtained a value of $p = 0.526$, meaning that there is no relationship between the number of children and irregular antenatal care visits at the Amandraya Health Center in South Nias Regency, as shown in table 5 below:

Table 5. Relationship between Parity and Irregular Antenatal Care Visits at the Amandraya Health Center in South Nias Regency

No	Parity	Antenatal care						p
		Irregular		Regular		Total		
		f	%	f	%	f	%	
1	1 person	11	45,8	13	54,2	24	100,0	0,526
2	2-4 people	17	44,7	21	55,3	38	100,0	
3	>4 apeople	7	63,6	4	36,4	11	100,0	

Based on the cross-tabulation results between knowledge and irregular antenatal care visits, it was found that out of 3 respondents with less knowledge, 3 respondents (100.0%) made irregular antenatal care visits. Of the 30 respondents with moderate knowledge, 9 respondents (30.0%) made regular antenatal care visits and 21 respondents (70.0%) made irregular antenatal care visits. Of the 40 respondents with good knowledge, 29 respondents (72.5%) made regular antenatal care visits and 11 respondents (27.5%) made irregular antenatal care visits. The results of the statistical test obtained a value of $p = 0.000$, meaning that there is a relationship between knowledge and antenatal care visits at the Amandraya Health Center in South Nias Regency, as shown in table 6. The following:

Table 6. Relationship between knowledge and irregular antenatal care visits at the Amandraya Community Health Center, South Nias Regency

No	Knowledge	Antenatal care						P
		Irregular		Regular		Total		
		f	%	f	%	f	%	
1	Less	3	100,0	0	0,0	3	100,0	0,000
2	Middle	21	70,0	9	30,0	30	100,0	
3	Good	11	27,5	29	72,5	40	100,0	

Based on the cross-tabulation results between income and irregular antenatal care visits, it was found that out of 51 respondents with income <Rp.1.750.000,- there were 23 respondents (45.1%) who made regular antenatal care visits and 28 respondents (54.9%) who make irregular antenatal care visits. Of the 22 respondents with income \geq Rp 1,750,000,- there were 15 respondents (68.2%) who made regular antenatal care visits and 7 respondents (31.8%) made irregular antenatal care visits. The statistical test results obtained a value of $p = 0.007$, meaning that there is a relationship between income and irregularity of antenatal care visits at the Amandraya Health Center in South Nias Regency, as shown in table 7. below:

Table 7. Relationship between income and irregular antenatal care visits at the Amandraya Health Center in South Nias Regency

No	Income	Antenatal care						p
		Irregular		Regular		Total		
		f	%	f	%	f	%	
1	<Rp 1.750.000,-	28	54,9	23	45,1	51	100,0	0,007
2	\geq Rp 1.750.000,-	7	31,8	15	68,2	22	100,0	

Based on the results of the cross tabulation between the support of health workers and the irregularity of antenatal care visits, it was found that out of 71 respondents with the support of good health workers, there were 37 respondents (52.1%) who made regular antenatal care visits and 34 respondents (47.9%) who make regular antenatal visits. Meanwhile, from 2 respondents with less support from health workers, 1 respondent (50.0%) made regular antenatal care visits and 1 respondent (50.0%) made irregular antenatal care visits. The results of the statistical test obtained a value of $p = 0.953$, meaning that there is no relationship between the support of health workers and

the irregularity of Antenatal Care visits at the Amandraya Health Center in South Nias Regency, as shown in table 8 below:

Table 8. The relationship between the support of health workers and the irregularity of antenatal care visits at the Amandraya Community Health Center, South Nias Regency

Kunjungan Antenatal Care		Irregular		Regular		Total		p
No	Support Of Health Workers	f	%	f	%	f	%	
1	Less	1	50,0	1	50,0	2	100,0	0,953
2	Good	34	47,9	37	52,1	71	100,0	

Discussions

Statistically, there is a relationship between mother's knowledge and antenatal care visits ($p=0.000$). This proves that knowledge has an influence on increasing antenatal care visits. That is, knowledge has a higher chance of improving prenatal care. Good knowledge makes mothers check their pregnancies more often according to their gestational age compared to mothers who have less or poor knowledge. Mothers who have good knowledge will feel that antenatal checks are important because they will see how the condition of the fetus they are carrying is whether there are any problems or not. This is consistent with research conducted by Manurung (2015) at the Padangmatinggi Health Center which stated that knowledge had a significant relationship with antenatal care visits ($p=0.001$).

Mothers who have good knowledge check their pregnancies more often, this may be because mothers who are well-informed care about their health and are concerned about the state of their pregnancy. The knowledge possessed by the mother makes the mother more curious about the state of her pregnancy so that she makes more frequent antenatal care visits. Good knowledge is also obtained from a good education where the majority of respondents have high school education and can also be obtained from previous experience (Igbokwe, et al, 2012).

Knowledge is an indicator of someone in carrying out an action, if someone is based on good knowledge of health then that person will understand the importance of maintaining health and motivate himself to apply it in his life. Knowledge is needed as support in growing self-confidence as well as attitudes and behavior every day, so that it can be said that knowledge is a fact that supports one's actions (Notoatmodjo, 2014).

Knowledge or cognitive domains are very important for the formation of one's actions, knowledge is influenced by factors of formal education, knowledge is very closely related to education where the higher the education, the wider the knowledge, but that does not mean that people with low education have absolutely low knowledge (Hastuti et al, 2011). This is supported by Suryani's research, et al, 2017 which shows that knowledge has a relationship with pregnancy checks. The importance of the knowledge aspect in the use of antenatal care (ANC) can be seen from the opinion of Choli (2017) which states that the use of antenatal care (ANC) needs to be carried out in efforts to improve maternal health during pregnancy and childbirth.

Income is a level of income obtained from the main job and side jobs of family members. The statistical test results showed that there was a relationship between income and antenatal care visits at the Amandraya Health Center in South Nias Regency with $p=0.007$. That is, high or low income has the same opportunity to do pregnancy checks. especially now that the government has borne the costs so there is no reason not to do a pregnancy check-up. However, in this study, many mothers with income <Rp. 1,750,000 still did not have their pregnancy checked. Even though the costs for carrying out the examination are on average paid by the husband. This is inseparable from the views of mothers who say there is no need to carry out prenatal checks as long as the mother feels healthy and there are no complaints that hinder their activities (Purba, et al, 2022).

Research results The results of Harbri's research (2018) show that families with the majority of non-fixed incomes actually have quite good use of antenatal care. This is not in line with research

conducted by Manurung (2015), that there is no significant relationship between income and pregnancy checks in the Padangmatinggi health center area with $p=0.273$.

Family income is an enabling factor for someone to take advantage of health services. Family income also determines the socio-economic status of the family. Socio-economic is a picture of a person's level of life in society which is determined by the variables of income, education and employment, because this can affect aspects of life including health care, but currently pregnancy checks have become the scope of assistance from the government for financing, but currently pregnancy checks is no longer charged so that income does not have a significant impact on the utilization of antenatal care services (Wahyuliati, 2016).

Income also has a major contribution in the utilization of health services. For mothers who have funds, they will be more flexible in utilizing health services, conversely, mothers who have less costs will be less flexible in utilizing health services. However, in this study it can be seen that pregnant women with income <Rp. who utilize antenatal care services, this is inseparable from the free antenatal care services at puskesmas and pregnant women who feel the need for antenatal care services for the health of mothers and babies (Porouw, et al, 2021).

4. CONCLUSION

There is a relationship between knowledge ($p=0.001$) and income ($p=0.007$), mothers and irregular antenatal care visits at the Amandraya Health Center in South Nias Regency in 2022. There is no relationship between mother's education, number of children and health workers and irregular antenatal care visits in Amandraya Health Center in South Nias Regency in 2022. It is suggested to the staff of the Amandraya Health Center in South Nias Regency to increase counseling activities so that pregnant women's knowledge about antenatal care increases and antenatal care visits can be carried out regularly from the 1st to the 3rd trimester. proactively seek information about the health of their pregnancy and the importance of antenatal care visits so that they can add to the knowledge of mothers about antenatal care and have an impact on increasing regular antenatal care visits..

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