

Analysis of Factors Affecting Pregnancy Visits for Mother and Fetal Health

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Abstract:

The health of pregnant women is an important aspect to pay attention to throughout the gestation period for unexpected complications to occur. Pregnancy visits play an important role in detecting any complications during pregnancy early. Many factors influence the mother in carrying out a pregnancy visit (ANC). This study aimed to analyze the factors that influence pregnancy visits for the health of the mother and fetus. This type of research is analytic with a cross-sectional. The study population was third-trimester pregnant women at the Langsa Baro Public Health Center. The sampling technique uses the total population, so the number of samples is 83 people. Data analysis used the chi-square and multiple logistic regression. The results showed that knowledge (sig. 0.002), attitude (sig. 0.001), family support (sig. 0.000), and the role of health workers (sig. 0.000) had a significant relationship with pregnancy visits. The multivariate results show that the role of health workers has the most influence on pregnancy visits by pregnant women.

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INTRODUCTION

The health of pregnant women is an important aspect to pay attention to throughout the gestation period because unexpected complications can occur, so there is a need for supervision (Kiser & Nasrin, 2018). Supervising pregnant women is needed for good relationships and communication between health workers and pregnant women. pregnant women need to be told everything about pregnancy, especially regarding pregnancy conditions related to the mother's and fetus's health (Ernawati et al., 2019).

Pregnancy visits play an important role in pregnant women's early detection of pregnancy complications. Pregnancy visits help reduce maternal morbidity and mortality by providing information about danger signs and treatments for pregnancy complications. Pregnancy visits also play an important role in reducing maternal mortality (Nxiweni et al., 2022).

Based on data from the Langsa City Health Profile, it was reported that the maternal mortality rate (AKI) was 138/per 100,000 live births. This data is better than last year's data which reached 207/per 100,000 live births. In 2017, maternal deaths were dominated by deaths of pregnant women, with 80% and 20% of deaths caused by childbirth. It shows that health services or antenatal care were not optimal (DINKES Kota Langsa, 2018).

Following evidence-based practice, the government has established several antenatal cares (ANC) policy programs, one of which is ANC visits at least six visits Maternal health programs in

Indonesia recommend that pregnant women make at least four visits for check-ups during pregnancy (Titania et al., 2018).

The health efforts undertaken by the Indonesian Ministry of Health to reduce MMR are to ensure that all pregnant women can receive quality health services, including integrated antenatal care, following the applicable service provisions (Herniyanti et al., 2022). The success of ANC services can be seen from the coverage of K4 or the percentage of visits to four mothers in the third trimester of pregnancy. K4 coverage is the number of pregnant women who have received ANC services following the service provisions at least four times according to the recommended schedule for each trimester during pregnancy compared to the target number of pregnant women in a work area over a period of one year (Wau & Razella, 2020). The K4 coverage indicator shows the access to health services received by the mother during pregnancy and the level of adherence of the mother during her pregnancy checked by a health worker (Waller et al., 2016).

It can be stated that the coverage of maternal health services in Langsa City is not in accordance with the strategic plan and Minimum Service Standards in the same year, which is 100%, this does not illustrate that the health services provided are bad, but several reports found varied. Coverage of the first and fourth pregnancy visits (K1 & K4) in the last three years was 93.07%, 92.32% and 99% (K1); for K3, 87.63%, 78.34% and 94.1%. The percentage of coverage of the fourth pregnancy visit (K4) per sub-district in Langsa City is West Langsa District 98.8%, Langsa Kota District 94.8%, Langsa Baro District 93%, Langsa Lama District 91.9% and East Langsa District 90.1% (DINKES Kota Langsa, 2018).

Antenatal care visits are influenced by several factors, including age, education level, employment status, parity of pregnant women, knowledge of pregnant women, attitudes of pregnant women, distance of residence, family income, information media facilities, husband support, family support and support from health workers (Prihanti et al., 2018).

Mothers' knowledge about Antenatal Care (ANC) services and the importance of prenatal care impacts pregnant women who will have their pregnancies checked by health workers. Knowledge about the benefits of a program (benefits of ANC services) causes a pregnant woman to have a positive attitude. It will influence the mother to make antenatal visits. The higher the level of one's knowledge, the more behavior will last for mothers who know and understand the ideal number of children. Then the mother will behave according to what she knows (Azizah et al., 2021) 2021).

The support given by the husband while the wife is pregnant can reduce anxiety and restore the confidence of the expectant mother in experiencing the pregnancy process. There are four forms of support given by husbands to wives in dealing with the process of pregnancy, namely: a) emotional support, b) instrumental support, c) appreciation support, and d) informational support (Sari, 2022).

The role of midwives in the community as a provider of health services through midwifery care. The role of community midwives, namely health educators and counsellors and implementing nursing counselling to individuals, families, groups, and communities are part of the scope of health promotion. So as a community midwife, a way to increase antenatal care visits to pregnant women is by providing counselling or health promotion so that pregnant women know the importance of examinations in pregnancy so that they can detect complications early in pregnancy (Suharti et al., 2020).

Antenatal care is a comprehensive and quality service provided to all pregnant women. The general goal of ANC is to fulfil the right of every pregnant woman to obtain quality antenatal care so that she can have a healthy pregnancy, give birth safely, and give birth to a healthy baby (Nurfitriyani & Puspitasari, 2022). By getting appropriate antenatal care services (4K), it is hoped

that pregnant women can avoid the risk of complications during pregnancy, childbirth and the postpartum period (Islam et al., 2022).

Based on the problems above, researchers conducted research on the analysis of factors that influence pregnancy visits for the health of the mother and fetus.

METHOD

This research is analytic with a cross-sectional, where the independent and dependent variables are studied simultaneously (Mertha Jaya, 2020). The population of this study was third-trimester pregnant women at the Langsa Baro Public Health Center, Langsa City. Sampling uses a total population technique, where the entire population is used as a sample. So, the number of samples in this study was 83 people.

The instrument in this study used a questionnaire consisting of 2 parts, namely the first part about the demographic data of the respondents and the second part containing each variable studied, namely pregnancy visits, knowledge, attitudes, family support, and the role of health workers. The instrument has been tested for validity and reliability.

The analysis used in this research is bivariate analysis with test chis square and multivariate analysis with multiple logistic regression tests (Hidayat, 2014).

RESULT

Univariate Analysis Results

Table 1. Characteristics of Respondents Based on Age, Parity and Education of Pregnant Women

Characteristics	f	%
Age		
<20 Years	5	6.0
20-35 Years	71	85.5
>35 Years	7	8.5
Parity		
Primigravida	24	28.9
Multigravida	50	60.3
Grande Multigravida	9	10.8
Education		
High School	53	63.9
Higher Education	30	36.1

Based on the table above, it is known that, according to characteristics based on age, the majority of the mother's age is 20-35 years as many as 71 people (85.5%). In parity characteristics, most pregnant women were multigravida, as many as 50 people (60.3%). In terms of educational characteristics, the majority of mothers with high school education were 53 people (63.9%).

Table 2. Frequency Distribution of Knowledge, Attitudes, Family Support, Role of Health Workers and Pregnancy Visits

Variable	f	%
Knowledge		
Less	17	20.5
Good	66	79.5
Attitude		
Negative	20	24.1
Positive	63	75.9
Family support		
Not supportive	15	18.1
Supporting	68	81.9
Role Health Officers		
Not Playing a Role	13	15.7
Role	70	84.3
Pregnancy Visits		
Not Appropriate	12	14.5
Appropriate	71	85.5

Based on the table above it shows that, in the knowledge variable, most of the mothers have good knowledge as many as 66 people (79.5%). In the mother's attitude variable, most mothers have a positive attitude about pregnancy visits, as many as 63 people (75.9%). In the family support variable, most mothers received support from the family regarding pregnancy visits, as many as 68 people (81.9%).

In the variable role of health workers, most of the health workers played a role in the pregnancy visits of pregnant women, as many as 70 people (84.3%). In the variable of pregnancy visits, most mothers were suitable for carrying out pregnancy visits of 71 people (85.5%).

Bivariate Analysis Results

Table 3. Relationship between Knowledge, Attitudes, Family Support, Role of Health Workers and Pregnancy Visits for Maternal and Fetal Health

Variable	Pregnancy Visits				Total		Sig.
	Not suitable		According		f	%	
	f	%	f	%			
Knowledge							
Lack	7	41.2	10	58.5	17	100	0.002
Good	5	7.6	61	92.4	66	100	
Attitudes							
Negative	8	40	12	60	20	100	0.001
Positive	4	6.3	59	93.7	63	100	
Family support							
Not supportive	8	33.3	7	46.7	15	100	0.000
Supporting	4	5.9	64	94.1	68	100	
The role of health workers							
Not having a role	9	69.2	4	30.8	13	100	0.000
Role	3	4.3	67	95.7	70	100	

Based on the table above it is known that, in the knowledge variable of 66 mothers who have good knowledge the majority maternal pregnancy visits according to 61 people (92.4%). After the statistical test was carried out, the sig value was obtained 0.002, which means that there is a relationship between the mother's knowledge and pregnancy visits.

Regarding the mother's attitude variable, out of 63 people who had a positive attitude about pregnancy visits, the majority of mothers were 59 (93.7%) who were appropriate in carrying out pregnancy visits. After the statistical test was carried out, the sig value was obtained. 0.001, it can be concluded that there is a relationship between maternal attitudes and pregnancy visits.

In the family support variable, out of 68 people who received family support, most mothers were suitable for carrying out pregnancy visits, as many as 64 people (94.1%). After the statistical test was carried out, the sig value was obtained. 0.000, which means that there is a relationship between family support and pregnancy visits.

In the variable role of health workers, of the 70 people who got the role of health workers, the majority of mothers were suitable for carrying out pregnancy visits, as many as 67 people (95.7%). After the statistical test was carried out, the sig value was obtained. 0.000, it means that there is a relationship between the role of health workers and pregnancy visits

Multivariate Analysis Results

Table 4. Relationship between Knowledge, Attitudes, Family Support, Role of Health Workers and Pregnancy Visits for Maternal and Fetal Health

Independent Variable	Coefficient B	Wald	OR [Exp(β)]	P (Sig)
Knowledge	0.924	1.404	4.072	0.336
Attitude	2.669	4.126	14.425	0.042
Family Support	3,284	4,439	26,684	0,036
Role of Health Workers	4,086	1,314	59,511	0.002

Table above shows that from binary logistic regression with the enter method in the first stage, the results of knowledge variable p (Sig) 0.336 and OR value (4.072), attitude p (Sig) 0.042 and OR value (14,425), family support p (Sig) 0.036 and OR value (26,684) and the role of health workers p (Sig) 0.002 OR value (59,511).

It can be concluded from the results above that the independent variables (attitude, family support, and the role of health workers) are included in the second stage of testing, where the p-value (sig) <0.05.

Table 5. Results of Stage Two Multivariate Test Analysis of Attitude Variables, Family Support and Role of Health Workers with Pregnancy Visits

Independent Variable	Coefficient B	Wald	OR [Exp(β)]	P (Sig)
Attitude	3.068	5.560	21.496	0.018
Family Support	4.070	8.080	58.547	0.004
Role of Health Workers	4.060	10.210	57.977	0.001
Nagelker R Square				0.759

It can be seen that from the binary logistic regression with the enter method in the second stage, the results obtained for the attitude variable p (Sig) 0.018 and OR value (21.496), family support p (Sig) 0.004 and OR value (58,547) and the role of health workers p (Sig) 0.001 OR value (57,977).

It can be concluded from the results above that the independent variables (attitude, family support, and the role of health workers) have the most influence on the dependent variable (pregnancy visits), the role of health workers, where the sig. 0.001, and the OR value is 57.977. This is because the role of health workers has the highest Exp. β or OR value, namely 57.977, meaning that respondents who influence the role of health workers have the opportunity 57.9 times

to make pregnancy visits compared to respondents who are not affected by the role of health workers.

In the analysis for the regression equation, it is known that the Nagelker R Square value is 0.759, which shows that the ability of the independent variable to explain the dependent variable is 0.795 or 79.5%. There are 20.5% other factors outside the model that explain the dependent variable, or equation Regression of attitude variables, family support, and the role of health workers jointly affect the pregnancy visit variable by 79.5%

DISCUSSION

Knowledge

The study found that most maternal pregnancy visits were appropriate in the knowledge variable of 66 mothers who had good knowledge, with as many as 61 people (92.4%). After the statistical test was carried out, the sig value was obtained. 0.002, which means that there is a relationship between the mother's knowledge and pregnancy visits. This research is in line with (Merdikawati et al., 2022). Her research results show that the knowledge level is related to the results of ANC visits during the Covid-19 pandemic. The results of research conducted by (Purbaningrum et al., 2019), the results of the study show that knowledge influences ANC visits in pregnant women.

The benefits of ANC and important knowledge for pregnant women. Pregnant women who do not understand this concept tend to have fewer ANC visits than mothers who understand. Knowledge results from the synthesis of education, communication, and information, so increasing knowledge is the target of directed interventions in education, information, and communication. Easy access, clear information, and good delivery by health workers will increase pregnant women's knowledge. Mothers with high knowledge will be more concerned about their health, so they are encouraged to complete ANC (Nsibu et al., 2016).

Attitudes

The study's results found that, in the knowledge variable, 63 people who had a positive attitude about pregnancy visits, most mothers were appropriate in carrying out pregnancy visits, as many as 59 people (93.7%). After the statistical test was carried out, the sig value was obtained. 0.001, it can be concluded that there is a relationship between maternal attitudes and pregnancy visits.

This research is in line with (Merdikawati et al., 2022), in which results of her research show maternal attitudes are positively related to the results of ANC visits during the Covid-19 pandemic. The results of research conducted by (Purbaningrum et al., 2019) showed that attitudes had a positive effect on ANC visits in pregnant women. This research aligns with the research conducted (Matondang et al., 2022); the study found that maternal attitudes affect pregnant women's compliance in carrying out ANC visits during pregnancy.

Mothers with a positive attitude towards visits will do well in carrying out pregnancy visits because mothers understand the importance of pregnancy visits to monitor the health of the mother and fetus in her womb.

Family Support

The study's results found that, in the knowledge variable of the 68 people who received family support, most mothers were suitable for carrying out pregnancy visits, as many as 64 people (94.1%). After the statistical test was carried out, the sig value was obtained. 0.000, which means

that there is a relationship between family support and pregnancy visits. From the research results conducted by Field (Ernawati et al., 2019), the research literature review found that family support factors greatly influence antenatal care for pregnant women.

Social support includes many sources of support as processes that affect maternal health. Social support is a form of relationship an individual receives from the environment, such as family and society (Kurniyawan et al., 2022). Family support is a complex matter that forms the basis of pregnant women's desire to make ANC visits. The husband's support also plays a role in carrying out ANC visits to generate positive energy for pregnant women with love given and making the mother happy. Support from husbands is also provided in the form of costs for ACN visits and the willingness of in-laws to provide company when carrying out ANC visits (Andrew et al., 2014). Husbands can provide moral and spiritual encouragement, attention, and information to increase the intensity of health behaviors (Maharani et al., 2022). Mothers need support because they suffer from anger, depression, and deviant behavior (Intiyaskanti et al., 2021).

The results of research conducted by Purbaningrum et al. (2019) showed that good family support affected ANC visits to pregnant women. Pregnant women need family support in carrying out their pregnancy. A family that provides good support will make the mother happy and happy so that it can make the mother diligent in having her pregnancy checked.

Role of Health Workers

The results showed that, in the knowledge variable of the 70 people who received the role of health workers, most mothers were suitable for carrying out pregnancy visits, as many as 67 people (95.7%). After the statistical test was carried out, the sig value was obtained. 0.000 means that there is a relationship between the role of health workers and pregnancy visits.

This research is in line with (Merdikawati et al., 2022), which shows that the level of support from health workers is related to the results of ANC visits during the Covid-19 pandemic. Pregnant women comfortably cared for during antenatal care are encouraged to visit regularly. Support from health workers is provided with a better response to emotional and psychological conditions (Merdikawati et al., 2022). Support helps mothers overcome potentially stressful situations and choose appropriate coping strategies depending on the situation (Kurniyawan et al., 2023).

This study is not in line with the research conducted (Matondang et al., 2022); the results obtained that family support did not affect pregnant women's adherence to carrying out ANC visits during pregnancy.

The role of health workers is very influential in visits made by mothers during pregnancy; the role of health workers is good in providing counseling, providing care, counseling, and supporting pregnant women in carrying out their pregnancy.

Multivariate Analysis

Testing binary logistic regression with the enter method in the second stage showed the attitude variable p (Sig) 0.018 and OR value (21,496), family support p (Sig) 0.04 and OR value (58,547), and the role of health officer p (Sig) 0.005 OR value (57,977).

It can be concluded from the results above that the independent variables (attitude, family support, and the role of health workers) that have the most influence on the dependent variable (pregnancy visits) are the role of health workers where the sig. 0.001, and the OR value is 57.977. This is because the role of health workers has the highest Exp.β or OR value, namely 57.977, meaning that respondents who influence the role of health workers have the opportunity 57.9 times to make pregnancy visits compared to respondents who are unaffected by the role of health workers.

In the analysis for the regression equation, it is known that the Nagelker R Square value is 0.759, which shows that the ability of the independent variable to explain the dependent variable is 0.795 or 79.5%.

There are 20.5% other factors outside the model that explain the dependent variable, or equation Regression of attitude variables, family support, and the role of health workers jointly affect the pregnancy visit variable by 79.5%.

CONCLUSION

Pregnant women need pregnancy visits to reduce morbidity and mortality. Knowledge, attitudes, family support, and the role of good health workers can influence mothers to make prenatal visits. The role of health workers is the factor that most influence pregnant women in carrying out pregnancy visits.

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