

The Relationship Between Knowledge and Attitude of Pregnant Women about Anc with The Suitability of Antenatalcare Visits

Erni Hernawati^{1*}, Hafizah Che Hassan², Nisha Nambiar², Ririn Heriawanti¹

¹Faculty of Midwifery, Institute of Health Science, Jl. Rajawali Barat No.38, Maleber, Kec. Andir, Kota Bandung, Jawa Barat, 40184, Rajawali, Indonesia

²Faculty of Nursing, Lincoln University College, Wisma Lincoln, No. 12-18, Jalan SS 6/12, 47301 Petaling Jaya, Selangor Darul Ehsan, Malaysia

*Corresponding Author's Email: ernihernawatie@gmail.com

ABSTRACT

Background: The goal of an ANC (Antenatal Care) examination is to assess a pregnant woman's physical and mental health in order to help her prepare for childbirth, the postpartum period, exclusive breastfeeding, and the restoration of her reproductive organs' health. To have a happy pregnancy and birthing experience, pregnant women get prenatal care (ANC) (positive pregnancy experience). **Objective:** To determine the relationship between the knowledge and attitudes of pregnant women about ANC and the suitability of ANC visits. **Methods:** The type of research used in this study is an analytical survey with a cross-sectional design. The study participants were typical primigravida pregnant women—as many as 172 people. The sample of this study was 120 primigravida pregnant women who had attended antenatal care visits at 3 Community Health Centers and 3 TPMB Cimahi City. **Results:** According to this study, 21.6% of respondents had good knowledge, 21.8% of respondents had sufficient knowledge, and 56.6% of respondents had less knowledge. 39.1% of respondents had a positive attitude towards the implementation of ANC, fewer than the respondents who had a negative attitude of 60.9%. Based on the bivariate analysis, which resulted in a *p*-value of 0.000, **Conclusion:** Pregnant women are required to constantly be receptive to the advice of healthcare professionals in order to broaden their knowledge and inspire moms to have their pregnancies regularly monitored.

Keywords: Knowledge; Attitudes; Antenatal Care Visits

INTRODUCTION

The goal of an ANC (Antenatal Care) examination is to assess a pregnant woman's physical and mental health in order to help her prepare for childbirth, the postpartum period, exclusive breastfeeding, and the restoration of her reproductive organs' health. To have a happy pregnancy and birthing experience, pregnant women get prenatal care (ANC) (positive pregnancy experience). Improvements to ANC services and standard-based health services are required since pregnancies that were once thought to be normal can develop into pathological pregnancies. If regular antenatal care (ANC) is not provided, then there is risk of experiencing issues during pregnancy, endangering the physical and mental health of the mother and fetus, being unable to properly prepare for childbirth, and even increasing morbidity due to pregnancy complications that are not treated and maternal and infant mortality (Satyanarayana, Lukose, & Srinivasan, 2011; Biaggi *et al.*, 2016). Skilled healthcare providers (HCPs) provide antenatal care (ANC) to pregnant women to ensure healthy conditions during pregnancy for both the mother and fetus (Omowunmi *et al.*, 2023). Knowledge is one of the elements that affects a person's propensity for an activity, especially a health behavior. Pregnant women who have a high level of education view ANC visits as not only vital for their pregnancies but also as ways to accomplish their commitments. These results also lend support to Pratiwi, Rahyani, & Ningtyas (2023) research findings that knowledge is one of the elements influencing ANC visits and behavior. So, the improved quality of antenatal care can reduce health complications with subsequent improvement in birth weight (binti

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Ab Latif, 2018).

The high death rate is largely due to pregnant women's lack of awareness and attitude toward irregular prenatal care checks. According to the World Health Organization, in 2018, the MMR for the entire world was 289,000 whereas it was just 16,000 in Southeast Asia (WHO). Susenas underlined that, with an MMR of 305 per 100,000 live births in 2015 and 24 per 1,000 live births in 2017, Indonesia's MMR and IMR are still relatively high. By the year 2030, the MMR and IMR are to be reduced to 12 per 1,000 live births and 70 per 100,000 live births, respectively.

Number Maternal deaths collected from family welfare program records at Welfare Services in 2020 There were 4,627 deaths in Indonesia. In 2021, the number of deaths in Indonesia will reach 7,389 an increase compared to 2020. One of the requirements for pregnancy is antenatal care, also known as ANC, which refers to a pregnancy examination by health professionals that focuses on observing the pregnancy, pregnancy education, and the mother's preparation for childbirth (Octavia, Febri, & Sembiring, 2023).

Antenatal care is one of the first steps in preventing pregnancy risk factors (ANC). Antenatal care refers to pregnancy-related medical treatments offered by healthcare professionals in compliance with midwifery service standards. The norm of antenatal treatment includes a history, general physical examination, obstetrics, laboratory tests for indications, as well as routine and specific interventions (Republic of Indonesia Ministry of Health, 2020b). In order to decrease maternal mortality and morbidity, prenatal care is utilized to broaden the scope of antenatal care (ANC) services. Antenatal care is one of the most successful medical strategies for reducing maternal morbidity and mortality. Prenatal screening allows for the early detection, treatment, or full eradication of numerous diseases, ensuring a healthy pregnancy and delivery (Republic of Indonesia Ministry of Health, 2020a).

K1 coverage in Indonesia is 96.4 percent in 2019 and 94.5 percent in 2020. K4 pregnant women's visits were covered 88.51% of the time in 2019 and 56.88% of the time in 2020 in Indonesia, according to data from the Ministry of Health, Republic of Indonesia. Family Health Directorate (Republic of Indonesia Ministry of Health, 2022).

The MMR target for 2024 has been achieved at 183 per 100,000 live births. This figure is still very far from the current condition of 305 per 100,000 live births, as is the estimated prevalence of stunted toddlers in 2024, with a target of 14%, still far from the current condition of 24.4%. One of the risk factors Contributing to maternal mortality and stunting is anemia in pregnant women. Based on Riskesdas, the prevalence of anemia in pregnant women has increased, namely from 37.1% in 2013 to 48.9% in 2018 (Republic of Indonesia Ministry of Health, 2022).

Increasingly effective service management for mothers and children who are dissatisfied with the management of maternal and newborn health problems serves as evidence of improving the quality of maternal and newborn health services (Ministry of Health, 2020a).

Two factors primarily influence pregnant women's behavior: internal ones like knowledge (intelligence), emotional stability, attitude, and motivation, and external ones like surroundings and access to healthcare. So, A comprehensive health education program for pregnant women can significantly improve their understanding, attitude, and adherence to folic acid supplementation (Idris, Akhlak, & Shdaifat, 2023). Pregnant women's conduct has an impact on antenatal care (ANC) examinations as well. Priyanti, Irawati, and Syalfina, (2020) assert that pregnant women's actions in providing for their children are also influenced by their knowledge of and attitudes around pregnancy. Pregnant women's positive attitudes will lead to beneficial behavioral changes, preventing them from having misconceptions about the significance of ANC visits. If pregnant women have a favorable attitude toward ANC, they will frequently visit the health center to have their pregnancies monitored. In contrast, if they have a negative attitude toward ANC, pregnant women are less likely to regularly visit each month. This means that while the stimulus may be the same for some people, the response will differ for everyone (Priyanti, Irawati, & Syalfina, 2020).

METHODOLOGY

The type of research used in this study is an analytical survey with a cross-sectional design. "Measurement

of a variable is made at a single point" refers to observing and measuring the subject simultaneously. The study was conducted at 3 Community Health Centers in Cimahi City and 3 Independent Practice Midwives in Cimahi City, The study was conducted from October 2 to 30, 2022. Population is a generalization area consisting of objects or subjects that have certain quantities and characteristics determined by the author to be studied and then conclusions drawn (Sugiyono, 2019).

A total of 172 study participants were typical primigravida pregnant women who conducted antenatal care visits at 3 Community Health Centers in Cimahi City and 3 TPMB in 2022 (January to May). The sampling technique in this research is purposive sampling. Purposive sampling is a technique for determining samples with certain considerations (Sugiyono, 2019).

The sample of this study was 120 primigravida pregnant women who had attended antenatal care visits at 3 Community Health Centers and 3 TPMB Cimahi City. This research instrument used primary data in the form of a questionnaire to assess knowledge and attitudes. Data processing is performed by computers in four steps: processing, coding, editing, and cleaning (Sugiyono, 2019). Univariate and bivariate data are examples of stages in data analysis with Chi-Squared Analysis.

Ethical Considerence

Ethical approval was obtained from the Faculty of Health Science and Technology, Universitas Jenderal Achmad Yani Cimahi Based with the number 27/KEPK/Fitkes-UNJANI/II/2023 on 13th February 2023.

RESULTS

Table 1: Respondent Distribution Depending on Traits

Characteristics	Frequency (f)	Percentage (%)
Education		
Elementary School	5	4.2
Junior High School	35	29.2
Senior High School	62	51.6
College	18	15.0
Total	120	100.0
Job		
Work	88	73.3
Fails to Work	32	26.7
Total	120	100.0
Age		
20-35 years	56	46.7
< 20 atau > 35 years	64	53.3
Total	120	100.0

Based on the table above, it shows that of the 120 respondents based on educational characteristics, most of them were high school graduates, namely 51.6%, most of them were working, namely 73.3%, and were in the age range <20 or> 35 years with 53.3%.

Table 2: Knowledge of ANC Visits

Knowledge	Total	Percentage (%)
Good	26	21.6
Enough	25	21.8
Not enough	69	56.6
Total	120	100

The table above shows that out of 120 respondents based on knowledge showed that most primigravida pregnant women have less knowledge about antenatal care of 56.6%.

Table 3: The Distribution of Respondents is Based on The Attitudes of Pregnant Women in The North Cimahi Region in 2023

Attitude	Total	Percentage (%)
Positive	47	39.1
Negative	73	60.9
Total	120	100.0

Based on the table above, it shows that out of 120 respondents based on attitudes, most primigravida pregnant women have a negative attitude about antenatal care of 60.9%.

Table 4: Knowledge of Antenatal Care (ANC) Among Respondents and The Appropriateness of Antenatal Care Visits

Knowledge	ANC Compliance				Total		P-Value
	In accordance		Not accordance		N	%	
	N	%	N	%			
Good	20	76.9	6	23.1	26	100	0.000
Enough	18	72.0	7	28.0	25	100	
Not enough	24	34.7	45	65.3	69	100	

Based on the table above, it can be seen that of the 120 primigravida pregnant women respondents who had good knowledge and performed ANC were 6.9%, mothers with less knowledge did not perform ANC were 65.3%, and only 34.7% did ANC. There is a relationship between knowledge and the suitability of antenatal care visits.

Table 5: The Relationship Between Respondents' Attitudes About Antenatal Care (ANC) and the Suitability of Antenatal Care Visits

Attitude	ANC compliance				Total		P-Value
	In accordance		Not accordance		N	%	
	N	%	N	%			
Positive	39	68.4	18	31.6	57	100	
Negative	17	26.9	46	73.1	63	100	0.000

Based on the table above, it can be seen that of the 120 primigravida pregnant women respondents who had a positive attitude and performed ANC was 68.4%. Mothers with a negative attitude who performed ANC were 26.9% and did not do ANC were 73.1%. There is a relationship between the attitude of primigravida pregnant women and the suitability of antenatal care visits.

DISCUSSION

According to the results of the analysis of the respondents' characteristics, there are a number of factors that affect the respondents' knowledge and attitudes. The first component is education; this study's findings infer that pregnant women have a better understanding and absorption of knowledge the more education they have. Emanuel in Panjaitan claims that education is a significant factor that affects a person's state and drives

decisions. This is so that better understanding or information regarding the utilization of health services can hopefully result from higher education. Ariestanti's research, which asserts that a mother with a higher education will have greater behavior and knowledge connected to awareness of carrying out ANC for her pregnancy, is another piece of evidence that supports this (Padesi, Suarniti, & Sriasih, 2021).

The number of prenatal checkups must be appropriate and meet the minimum criteria for ANC visits. Also, this study demonstrated that up to 45 respondents met the requirements for ANC visits in each trimester. This indicates that many pregnant women still do not follow the recommended minimum number of ANC visits based on gestational age or trimester. According to Indonesian Ministry of Health guidelines during the COVID-19 epidemic, ANC visits were required for normal pregnancies six times, with at least twice in the first trimester, once in the second trimester, and three times in the third trimester. According to Inayah's research, pregnant women with higher levels of education will have their pregnancies tested more frequently because they have a strong desire to learn about their pregnancies and to voice any issues they may be experiencing. This is consistent with the study's findings, which indicate that respondents with secondary to postsecondary education had a similar proportion of respondents who routinely performed ANC (Ningsih, 2020). Another study showed that age, knowledge, attitudes, work, and family support are related factors influencing the frequency of antenatal care visits (Oktova, Halida, & Rusmat, 2023).

Work is another aspect; according to (Fatmawati *et al.*, 2022) research, moms who work will have less time to monitor their pregnancy, which indirectly limits their chance to gain more insight and knowledge because they work longer hours. While this is going on, stay-at-home women will have plenty of time to monitor their pregnancies and learn more about the advantages of ANC and ANC standards, directly increasing their level of knowledge. This contrasts with the findings of this study, which indicate that the proportion of respondents who work is comparable to that of respondents with strong expertise. Research by Octavia, Febri, and Sembiring (2023) indicates that there is no connection between ANC regularity and any kind of employment. This is so that working pregnant women can still perform ANC checks on a regular basis. Working mothers are well aware of the importance of performing pregnancy checks by taking the time to schedule appointments with health service providers. This study demonstrates that the frequency of ANC visits by research participants is equivalent to that of those in paid employment (Kostania, Mas'udah, & Suprapti, 2023).

Maternal parity is another determining factor. In this study, respondents who were multigravida were comparable to those who had positive attitudes and knowledge. Parity gives information on the mother's past experiences with pregnancy as well as the number of pregnancies she has had. Experience can be employed in an effort to acquire information since it is a process of repeating knowledge that has been acquired in order to solve difficulties faced in the past (Johariyah *et al.*, 2020).

According to Fatmawati *et al.* (2022) research, parity gives a mother's past pregnancies' experiences to draw on, which can indirectly affect her awareness of ANC visits. According to Qomar (2020) research, moms of first-time mothers feel that ANC is something new; thus, mothers are more motivated to adopt it since they are less worried about their pregnancies and hence make fewer visits. This contrasts with the findings of this study, which indicate that respondents with multigravida features make up the majority of those who consistently conduct ANC (Sukuwono, 2020).

According to the analysis of this study's data, there was a significant correlation between ANC visit preparation and understanding during the COVID-19 pandemic and the suitability of ANC visits for third-trimester pregnant women. This study is consistent with Sihole's study (2020), which demonstrates a link between pregnant women's knowledge and attitudes and the appropriateness of ANC visits at the Turikale Health Center, Maros Regency. Another relevant study is Toar's, which demonstrates a connection between pregnant women's knowledge and preparation and the appropriateness of ANC examinations at the Walanakan Langowan Utara Health Center. The majority of the respondents in this survey were aware of the advantages and purposes of ANC visits. Just 39 of the respondents to the questionnaire, according to its description, have a thorough understanding of the mechanism and the required minimum number of ANC visits, demonstrating the respondents' lack of expertise. The characteristics of the respondents and the time of the study, according to the researchers, are additional elements that contribute to a lack of understanding regarding the minimum number of ANC visits required by standards (Pratiwi, Rahyani, & Ningtyas, 2023). An ANC visit is a result of pregnant

women's awareness of and readiness for the purpose of routine ANC visits, which contribute positively to the process of carrying out pregnancy. Knowledge about ANC visits and their goals for pregnant women will also support positive presumptions for routine ANC visits. According to Ali's research, which was conducted in Karachi, Pakistan, and was titled "Factors determining the usage of prenatal care among expectant women," the likelihood of an ANC visit is three times higher for those with good knowledge than for those with less understanding. This study further clarified the significance of knowledge during ANC visits. Research from Daryantii that shows a connection between pregnant women's awareness of and attitudes toward ANC and the suitability of visits for ANC lends additional support to this study (Octavia, Febri, & Sembiring, 2023)

The results of this study indicate that, according to the research hypothesis, there is a relationship between knowledge, attitudes, and the suitability of antenatal care visits.

CONCLUSION

It is necessary to improve ANC services according to standards because pregnancies that were previously considered normal can turn into pathological pregnancies. Regular ANC can prevent pregnancy-related problems, help you prepare for labour, prevent complications from developing during an untreated pregnancy, and even reduce maternal and fetal mortality. One of the predisposing elements that drives a person's behavior, including health behavior, is knowledge and attitude. In 2020, this research seeks to examine the relationship between knowledge and attitudes about ANC and the acceptability of visits according to these standards. According to this study, 21.6% of respondents had good knowledge, 21.8% of respondents had sufficient knowledge, and 56.6% of respondents had less knowledge. 39.1% of respondents had a positive attitude towards the implementation of ANC, fewer than the respondents who had a negative attitude of 60.9%. Based on the bivariate analysis which resulted in a p -value of 0.000 and a coefficient value ($r = 0.876$) higher than the r table ($r = 0.632$), there is a relationship between attitudes and knowledge of pregnant women about ANC and the suitability of visits. Pregnant women are required to always receive advice from health workers to add insight and inspire mothers to monitor their pregnancies regularly.

Conflict of Interest

The authors declare that they have no conflict of interests.

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