

Relationship Between Pregnant Women's Knowledge and ANC (Antenatal Care) Visits at Majalaya Community Health Center in 2024

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Abstract

Antenatal Care (ANC) constitutes a professional health service provided by healthcare workers such as obstetricians, general practitioners, midwives, and nurses, aimed at maintaining maternal and fetal health. Although the K1 coverage rate achieved an increase to 97.7% in 2022 compared to 2020, the K4 coverage rate showed a decline to 90.94% (Ministry of Health, 2022). Adequate knowledge among pregnant women regarding ANC is crucial for ensuring regular antenatal visits, ideally conducted at least six times throughout the pregnancy (Ministry of Health of the Republic of Indonesia, 2020). This study aims to examine the relationship between pregnant women's knowledge and the frequency of ANC visits at the Majalaya Health Center. Employing a quantitative approach with a cross-sectional design, data were collected from 53 pregnant women. The findings revealed that 41.5% of respondents had limited knowledge, and 58.5% reported irregular ANC visits. Statistical analysis using the Chi-Square test yielded a p-value of 0.001 ($p < 0.05$), indicating a significant association between knowledge levels and ANC visit regularity. These results emphasize the importance of enhancing educational interventions to improve ANC attendance among pregnant women.

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Introduction

Maternal Mortality Rate (MMR) is a critical health indicator defined as the death of a woman during pregnancy, childbirth, or within the postpartum period, excluding deaths from accidental or incidental causes (Mandasari, Lamri, & Suryani, 2023). MMR is typically measured per 100,000 live births (Profil Kesehatan Indonesia, 2020). In Indonesia, the MMR in 2020 reached 230 per 100,000 live births. The leading causes of maternal mortality included hemorrhage (1,330 cases), pregnancy-induced hypertension (1,110 cases), infections (206 cases), circulatory system disorders (230 cases), metabolic disorders (144 cases), cardiac diseases (38 cases), and other causes (1,584 cases) (Profil Kesehatan Indonesia, 2020) (Pratiwi, Hasbiah, & Afrika, 2022), (Sari, Margiyanti, Ridmadhanti, & Tarigan, 2021), (Sriyani, Aksari, Rantauni, & Sukmawati, 2022)

Antenatal Care (ANC) plays a vital role in monitoring the progression of pregnancy to ensure the health of both mother and fetus (Munaim, Astuti, & Azizah, 2025), (SRI, 2025). ANC services are designed to promote maternal well-being, detect any potential complications early, and prepare for a safe delivery process, thus reducing maternal morbidity and mortality (Ministry of Health, 2018) (Limbong, 2023), (Sunarto, Fadlina, Agusfar, & Wahyuni, 2024). Regular antenatal visits, accompanied by proper education about pregnancy and potential risk factors, are essential in achieving these objectives (Arsesiana, Rahayu, & Hermatawi, 2024).

Despite extensive efforts to improve maternal health services, challenges remain, particularly related to the knowledge and behavior of pregnant women regarding ANC visits (Amalia, 2024), (Nurfitriyani & Puspitasari, 2022). Adequate knowledge empowers women to seek timely and appropriate antenatal care, whereas a lack of understanding can lead to irregular visits and increased pregnancy risks (Murua, 2023). Therefore, investigating the relationship between pregnant women's knowledge levels and the frequency of their ANC visits is crucial to inform future health promotion strategies.

This study aims to determine the relationship between pregnant women's knowledge and their ANC visit patterns at the Majalaya Health Center in 2024, thereby contributing to strategies for enhancing maternal health outcomes.

Method

This study employed a quantitative research design with a cross-sectional approach, aiming to examine the relationship between pregnant women's knowledge and their attendance at antenatal care (ANC) services. Cross-sectional research collects data at a single point in time from various individuals, allowing the researcher to simultaneously study independent and dependent variables to assess potential correlations (Sugiyono, 2022).

The research was conducted in the working area of the Majalaya Community Health Center, located in Majalaya District, Bandung Regency. The study population consisted of all pregnant women who underwent ANC examinations at the health center during the data collection period from May to June 2024. A total of 53 pregnant women meeting the inclusion criteria participated in the study, comprising individuals in their first trimester (6–12 weeks gestation) and third trimester (25–40 weeks gestation). Data collection utilized a structured questionnaire developed to assess pregnant women's knowledge about antenatal care and their ANC visit patterns. The primary data were obtained directly from respondents' answers, while secondary data were sourced from the KIA (Maternal and Child Health) records available at the health center.

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Data analysis involved both univariate and bivariate techniques. Univariate analysis was used to describe the characteristics of each variable, presented through frequency distribution tables. Bivariate analysis, specifically using the Chi-Square test with a 95% confidence interval and a significance level of $\alpha = 0.05$, was employed to examine the relationship between knowledge levels and ANC visit patterns. The hypothesis was tested based on the p-value: if $p > 0.05$, the null hypothesis (H_0) was accepted, indicating no relationship; conversely, if $p < 0.05$, the alternative hypothesis (H_a) was accepted, suggesting a significant association between the variables.

Result and Discussions

1. Result

Knowledge Level of Pregnant Women at Majalaya Health Center

Data collected through questionnaires from 53 third-trimester pregnant women during May–June 2024 showed varying levels of knowledge regarding antenatal care. The frequency distribution is presented in the table below:

Table 1
Knowledge Level

Knowledge Category	Frequency (F)	Percentage (%)
Good	15	28.3%
Fair	16	30.2%
Poor	22	41.5%
Total	53	100%

Source: Primary Data, 2024.

The majority of respondents (41.5%) demonstrated poor knowledge regarding antenatal care.

ANC Visit Frequency among Pregnant Women

Data extracted from the KIA book and Majalaya Health Center registry revealed the following ANC visit patterns:

Table 2
ANC Visit Frequency

Visit Category	Frequency (F)	Percentage (%)
Regular	31	58.5%
Irregular	22	41.5%
Total	53	100%

Source: Primary Data, 2024.

The data show that a higher proportion of pregnant women (58.5%) attended ANC services regularly.

Relationship Between Knowledge and ANC Visits

Chi-square analysis was performed to assess the association between pregnant women’s knowledge and the frequency of ANC visits. The results are summarized as follows:

Table 3
Relationship Between Knowledge and ANC Visits

Knowledge Category	Regular Visits (F/%)	Irregular Visits (F/%)	Total (F/%)
Good	13 (86.7%)	2 (13.3%)	15 (100%)
Fair	10 (62.5%)	6 (37.5%)	16 (100%)
Poor	8 (36.4%)	14 (63.6%)	22 (100%)
Total	31 (58.5%)	22 (41.5%)	53 (100%)

Source: Chi-Square Test Result.

The statistical analysis yielded a p-value of 0.001 ($p < 0.05$), indicating a significant association between knowledge levels and the regularity of ANC visits among pregnant women.

2. Discussion

The findings suggest that pregnant women’s knowledge significantly influences their adherence to antenatal care visit schedules. Respondents with good knowledge predominantly conducted regular ANC visits, highlighting the role of awareness and education in promoting positive health behaviors. These results align with previous research by Indah Rahayu (2022), who reported that pregnant women with better knowledge levels were more likely to complete antenatal care visits. The Chi-square test in Rahayu’s study also demonstrated a significant relationship ($p = 0.001$) between knowledge and ANC compliance.

Lack of understanding regarding the number and importance of ANC visits may lead to irregular attendance. Pregnant women who only recognize the general need for visits but do not fully comprehend the objectives and procedures of ANC examinations are less consistent in seeking timely care. This pattern was evident in our study, where a considerable proportion of women with poor knowledge exhibited irregular visit behavior. Enhancing maternal education on antenatal care through structured counseling sessions and community health promotion programs could substantially improve ANC attendance rates and maternal health outcomes.

Conclusion

This study demonstrated a significant relationship between pregnant women's knowledge levels and the frequency of their antenatal care (ANC) visits at the Majalaya Health Center. Respondents with better knowledge were more likely to attend ANC services regularly, whereas those with limited understanding tended to have irregular visits. Statistical analysis using the Chi-Square test confirmed this association with a p-value of 0.001 ($p < 0.05$). These findings underscore the critical importance of maternal education programs to enhance pregnant women's awareness regarding the necessity and benefits of regular antenatal care. Strengthening knowledge through targeted health education interventions may contribute substantially to improving maternal health outcomes and reducing maternal mortality rates.

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