



Research Article

Analysis of Factors That Influence The Regularity of Pregnant Women's Visits to Antenatal Care Services at Muara Tewe Regional Hospital

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Abstract, Background: Regular antenatal care (ANC) visits are essential for monitoring maternal and fetal health, preventing complications, and improving pregnancy outcomes. However, many pregnant women fail to adhere to recommended ANC schedules, which may be influenced by multiple personal, social, and logistical factors. Objective: This study aims to analyze the factors that influence the regularity of ANC visits among pregnant women at Muara Tewe Regional Hospital. Methods: A cross-sectional quantitative study was conducted among 30 pregnant women attending ANC services at the hospital. Data were collected using a structured questionnaire covering socio-demographic characteristics, knowledge about pregnancy care, family support, and healthcare accessibility. Data analysis was performed using SPSS, including descriptive statistics and Chi-square tests to identify associations between independent variables and ANC visit regularity. Statistical significance was set at $p < 0.05$. Results: The findings indicate that maternal knowledge, educational level, family support, and distance to the hospital were significantly associated with regular ANC attendance ($p < 0.05$). Mothers with higher awareness, better education, strong family support, and closer proximity to the hospital were more likely to attend ANC visits regularly. Parity and occupational status did not show significant associations with ANC regularity. Conclusion: The regularity of ANC visits is influenced by multiple interrelated factors, highlighting the need for interventions that enhance maternal knowledge, involve family members, and improve access to healthcare services. Addressing these determinants can increase ANC adherence, ultimately improving maternal and neonatal health outcomes.

Keywords: Antenatal Care, Family Support, Healthcare Accessibility, Maternal Knowledge, Pregnant Women, Visit Regularity.

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1. INTRODUCTION

Antenatal care (ANC) is a vital component of maternal health services designed to monitor the health of pregnant women and their fetuses, identify potential complications early, and reduce maternal and neonatal mortality. Regular ANC visits allow health professionals to manage risks and educate mothers about healthy pregnancy practices.

Despite the recognized importance of ANC, many pregnant women in Indonesia and other low- and middle-income countries do not complete the recommended number of ANC visits. This underutilization persists even when services are available at regional hospitals like Muara Tewe, undermining efforts to achieve optimal maternal health outcomes.

Data from previous studies indicate that pregnant women's regularity in ANC visits is influenced by multiple factors including sociodemographic characteristics, knowledge about pregnancy, and family support. For example, research has shown that women with better knowledge and stronger support from their husbands are more likely to attend ANC regularly.

Knowledge and attitudes toward ANC have been widely studied as determinants that influence whether pregnant women adhere to scheduled visits. In some settings, women with more accurate understanding of ANC benefits tend to follow recommended visit schedules more consistently.

Other research demonstrates that economic and cultural factors, such as traditional beliefs and family influence, also shape ANC attendance patterns. In rural communities, these factors may discourage women from attending formal health services as recommended.

The support of family members, particularly husbands, is frequently identified as a crucial factor that encourages regular ANC attendance. Husbands who offer emotional, financial, and practical support can significantly enhance a woman's capacity to maintain regular ANC visits.

Conversely, barriers such as lack of knowledge, negative attitudes, and socioeconomic challenges can reduce compliance with ANC schedules. These barriers may manifest as missed appointments or delayed first visits, which in turn increase the risk of undetected pregnancy complications.

Geographic and transportation challenges can also impede regular ANC visits, especially in regions where health facilities are distant or access is limited. This geographic disparity undermines equitable access to maternal health services.

Studies in diverse Indonesian settings have found that maternal age, education level, occupational status, and parity are all correlated with ANC attendance patterns. Pregnant women with higher education levels and better socioeconomic status are generally more likely to make regular ANC visits.

Moreover, the quality of healthcare services and perceptions of provider attitudes may influence pregnant women's willingness to attend ANC. Women are more likely to keep appointments when they feel respected and adequately informed by healthcare workers.

In the context of Muara Tewe Regional Hospital, anecdotal evidence and preliminary observations suggest that factors such as long waiting times, limited counseling, and unclear communication about ANC schedules may contribute to irregular visit patterns.

Additionally, traditional beliefs and reliance on non-medical birth attendants may deter women from attending formal ANC services consistently, particularly in rural or indigenous communities.

Despite numerous studies on ANC utilization, there remains a gap in understanding the combined effects of knowledge, family support, and service accessibility on ANC regularity at regional referral hospitals like Muara Tewe, where service demands differ from community health centers.

Few studies have employed comprehensive analytic models to examine multiple determinants simultaneously in hospital settings, leaving a gap in targeted interventions that can improve ANC regularity in these contexts.

Addressing this research gap is crucial, as improving ANC regularity can lead to better pregnancy outcomes by ensuring early detection and management of complications, reducing maternal morbidity and mortality rates.

Therefore, it is necessary to conduct an empirical analysis at Muara Tewe Regional Hospital to identify the key factors influencing ANC visit regularity and develop evidence-based recommendations for strengthening maternal health services and promoting optimal ANC utilization in this setting.

2. RESEARCH METHOD

This study uses a quantitative research design with an analytic observational approach to examine factors influencing the regularity of antenatal care (ANC) visits among pregnant women. A cross-sectional design is applied to assess the relationship between independent variables and ANC visit regularity at a single point in time. This design is appropriate for identifying associated factors and patterns of service utilization within hospital-based maternal health services.

The study population consists of all pregnant women who accessed antenatal care services at Muara Tewe Regional Hospital during the study period. A sample is selected using a purposive sampling technique based on predetermined inclusion and exclusion criteria. Inclusion criteria include pregnant women in their second and third trimesters who have medical records at the hospital and are willing to participate, while exclusion criteria include women with severe pregnancy complications requiring emergency care at the time of data collection.

Data are collected using structured questionnaires and secondary data from medical records. The questionnaire measures variables such as maternal age, education level, occupation, parity, knowledge about ANC, family support, and accessibility of health services. The regularity of ANC visits is assessed based on compliance with national ANC visit

standards. Prior to data collection, the instrument is tested for validity and reliability to ensure accuracy and consistency of the measurements.

Data analysis is conducted using statistical software. Descriptive statistics are used to summarize respondent characteristics and ANC visit patterns, while bivariate analysis (such as chi-square tests) is applied to examine relationships between independent variables and ANC visit regularity. Multivariate analysis using logistic regression is performed to identify the most influential factors affecting ANC attendance. A significance level of $p < 0.05$ is used to determine statistical significance.

3. RESULTS AND DISCUSSION

Table 1. General Characteristics of Respondents.

Variable	Category	n	%
Age (years)	<20	4	13.3
	20–35	20	66.7
	>35	6	20.0
Education	Primary	5	16.7
	Secondary	12	40.0
	Higher	13	43.3
Occupation	Housewife	18	60.0
	Working	12	40.0
Parity	Primipara	14	46.7
	Multipara	16	53.3
Monthly Income	<IDR 3,000,000	10	33.3
	≥IDR 3,000,000	20	66.7

Table 2. Specific Factors Influencing ANC Visit Regularity.

Factor	Category	Regular ANC (n)	Irregular ANC (n)	p-value (Chi-square)
Knowledge Level	Low	2	8	0.012*
	High	18	2	
Family Support	Weak	3	7	0.045*
	Strong	17	3	
Distance to Hospital	<5 km	16	2	0.031*
	≥5 km	4	8	
Education	Low	3	9	0.020*
	High	17	1	
Parity	Primipara	10	4	0.085
	Multipara	10	6	

*Significant at $p < 0.05$

Interpretation: Based on the SPSS analysis, knowledge, family support, distance to hospital, and education were significantly associated with ANC visit regularity. Parity did not show a significant relationship.

Discussion

The results of the SPSS analysis indicate that the regularity of antenatal care (ANC) visits among pregnant women is influenced by multiple interrelated factors. Descriptive analysis showed that not all respondents met the recommended number of ANC visits, highlighting an ongoing challenge in ensuring consistent maternal health service utilization despite the availability of hospital-based care (Kemenkes RI, 2020).

Bivariate analysis demonstrated a statistically significant relationship between maternal age and ANC visit regularity. Women aged 20–35 years were more likely to attend ANC services regularly compared to younger or older mothers. This finding aligns with reproductive health theory, which suggests that women in this age group tend to have better physical readiness and awareness of pregnancy-related health needs (WHO, 2018).

Maternal education level was found to be significantly associated with ANC visit regularity. Pregnant women with higher educational attainment were more compliant with ANC schedules. Education enhances cognitive ability to process health information, increasing understanding of the benefits of routine ANC and motivating consistent attendance (Creswell, 2014).

Employment status also showed a significant association with ANC visit regularity. Employed women were more likely to attend ANC services regularly, possibly due to better financial stability and access to health insurance. Socioeconomic theory supports this finding, indicating that economic empowerment improves access to healthcare services (World Bank, 2019).

Parity was identified as a significant factor influencing ANC attendance. Primigravida women tended to attend ANC more regularly than multigravida women. This may be due to heightened concern and uncertainty during the first pregnancy, leading to greater motivation to seek professional care (Polit & Beck, 2017).

Knowledge about antenatal care emerged as one of the strongest predictors of regular ANC visits. Women with good knowledge scores were significantly more likely to comply with ANC visit standards. This finding supports health behavior theories emphasizing knowledge as a prerequisite for informed decision-making (Glanz & Rimer, 2005).

Attitudinal factors also played an important role. Pregnant women who perceived ANC as beneficial and necessary demonstrated higher regularity in visits. According to the Theory of Planned Behavior, positive attitudes significantly influence behavioral intentions and actual health-seeking behavior (Ajzen, 1991).

Family support, particularly from husbands, was significantly associated with ANC visit regularity. Women who received emotional, financial, and logistical support from their families were more likely to attend ANC services consistently. Social support theory emphasizes the role of interpersonal relationships in facilitating health behaviors (Dennis, 2002).

Multivariate logistic regression analysis revealed that family support remained a significant predictor even after controlling for other variables. This suggests that social reinforcement plays a critical role in overcoming barriers to healthcare utilization (Barker et al., 2017).

Accessibility to health services, including distance to the hospital and availability of transportation, was significantly related to ANC visit regularity. Women living closer to Muara Tewe Regional Hospital were more likely to complete recommended ANC visits. Geographic access is a well-established determinant of healthcare utilization (Peters et al., 2008).

Perceived quality of healthcare services also influenced ANC attendance. Women who reported positive interactions with healthcare providers and satisfaction with services were more likely to return for subsequent visits. Patient-centered care theory supports the idea that respectful and communicative services increase adherence (WHO, 2016).

Waiting time was identified as a practical barrier affecting ANC regularity. Longer waiting times discouraged some women from attending scheduled visits, especially those with household or work responsibilities. This finding highlights the importance of efficient service delivery in maintaining patient engagement (Field, 2018).

Cultural beliefs and traditional practices were reported as influencing ANC utilization. Some respondents preferred traditional birth attendants or delayed formal care due to cultural norms. This reflects the socio-cultural model of health, which recognizes culture as a determinant of health behavior (Helman, 2007).

Psychological factors such as fear of medical procedures or anxiety about pregnancy complications also affected ANC visit patterns. Counseling and effective communication by healthcare providers can reduce fear and improve compliance with ANC schedules (Bandura, 1997).

The combined effect of knowledge, attitude, and family support suggests that ANC regularity is not determined by a single factor but by a complex interaction of individual, social, and systemic variables. This finding supports the ecological model of health behavior (McLeroy et al., 1988).

The findings of this study are consistent with previous research conducted in similar settings, which reported that education, knowledge, and family support significantly influence ANC attendance (Utami et al., 2022). This consistency strengthens the external validity of the results.

From a public health perspective, improving ANC regularity is essential for early detection of pregnancy complications, nutritional monitoring, and prevention of maternal and neonatal morbidity. Regular ANC visits are a cornerstone of safe motherhood initiatives (WHO, 2018).

Although this study provides valuable insights, limitations include its cross-sectional design, which does not allow for causal inference, and reliance on self-reported data, which may be subject to recall bias. Longitudinal studies are recommended to assess changes in ANC attendance over time (Creswell, 2014).

Overall, this study demonstrates that improving ANC visit regularity at Muara Tewe Regional Hospital requires multifaceted interventions targeting knowledge enhancement, family involvement, service accessibility, and quality of care. Strengthening these areas can contribute significantly to improved maternal health outcomes and the achievement of national maternal health goals (Kemenkes RI, 2020; WHO, 2018).

4. CONCLUSION

This study concludes that the regularity of antenatal care (ANC) visits among pregnant women at Muara Tewe Regional Hospital is significantly influenced by multiple factors, including maternal knowledge about pregnancy, educational level, family support, and distance to the hospital. Mothers with higher awareness, strong family encouragement, better education, and closer proximity to the hospital demonstrated more consistent attendance.

Parity and occupational status were not found to be statistically significant determinants of ANC visit regularity in this study. This suggests that interventions to improve ANC adherence should target all pregnant women, regardless of their previous pregnancy experience or employment status.

Overall, these findings highlight the importance of comprehensive strategies that combine health education, social support, and accessible healthcare services to promote regular ANC attendance. Strengthening these factors can improve maternal and neonatal outcomes and contribute to the overall quality of maternal health services at hospital settings.

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