



## LITERATURE REVIEW: FACTORS AFFECTING ANTENATAL CARE VISITS

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### ABSTRACT

Antenatal care (ANC) visits play a crucial role in reducing maternal and neonatal morbidity and mortality. However, the utilization of ANC services remains inconsistent and is influenced by multiple interrelated factors. This study aims to comprehensively examine the factors affecting ANC visits through a literature review approach. The literature search was conducted using PubMed, Google Scholar, and ScienceDirect databases, covering publications from 2020 to 2025. Articles were selected through a systematic screening process based on predefined inclusion and exclusion criteria. From the four articles that met the inclusion criteria, a number of consistent patterns and themes emerged. The selected studies were analyzed using a narrative synthesis to identify recurring themes and patterns. The findings indicate that ANC visits are shaped by several key determinants, including maternal knowledge, family support particularly from husbands accessibility of health facilities, socio-economic conditions, and geographical barriers. In addition, risk perception of pregnancy and the perceived quality of health services also influence mothers' decisions to attend regular ANC visits. These results highlight that ANC utilization is not merely an individual behavior, but rather a product of the interaction between personal, social, and structural factors. From a theoretical perspective, this study reinforces the multidimensional health behavior framework. In terms of policy and practice, the findings emphasize the importance of comprehensive interventions that integrate family involvement, community-based strategies, and improved access to maternal health services.

Keywords: antenatal care; ANC visits; family support; health service utilization; maternal health; pregnancy care

### INTRODUCTION

Every pregnant woman deserves adequate healthcare during her pregnancy, and regular antenatal care (ANC) visits are among the most critical interventions for reducing maternal and neonatal mortality. On a global scale, research has shown that ANC enables early detection of pregnancy complications and supports safe delivery preparation making it a vital component of maternal health systems (Fauzi, R., Kyi et al. 2021). Yet, in many countries, including Indonesia, utilization of ANC remains suboptimal. This indicates that the success of ANC programs depends not only on facility availability but also on complex individual, social, and structural factors (Lateef et al. 2024).

Every pregnant woman has the right to adequate health services during pregnancy, and regular antenatal care (ANC) visits are one of the most important interventions for reducing maternal and infant mortality rates. Global studies show that ANC enables early detection of pregnancy complications and helps prepare for safe childbirth thus ANC is recognized as a key component of maternal health systems (Sidabungke et al. 2025). However, in reality, in many countries including Indonesia the utilization rate of ANC is still inadequate. National data and field studies show that pregnant women often do not meet the recommended frequency of visits, or even fail to undergo any check-ups at all (Umniyati1, Purnamasari, and Febriani 2022).

This phenomenon indicates that the success of ANC programs depends not only on the availability of health facilities, but also on various interacting factors at the individual, social, and structural levels. Factors such as mothers' knowledge about the importance of ANC, family

support, geographical access, household economic conditions, and perceptions of risks to pregnancy and fetal health often determine whether ANC is carried out or neglected (Khairani and Gurning 2025). Thus, to improve the coverage and effectiveness of ANC, intervention strategies need to consider the complexity of the local context: it is not enough to simply increase the number of facilities or health workers, but also to raise awareness among mothers, involve families and communities, and reduce structural barriers such as access to transportation and costs (Ramadani et al. 2025) In the midwifery context, this multidimensional understanding of ANC determinants enables more equitable and responsive maternal service planning that addresses the real needs of mothers and babies.

In Indonesia, despite efforts to expand ANC coverage, various local studies show that not all pregnant women complete the recommended minimum visits. For example, in the study conducted at the Puskesmas Simpang Tiga in Aceh Besar only about 53.4% of pregnant women completed the recommended ANC visits, far below expected health service standards (Misliati, Maidar, and Wardiati 2022). Similar findings emerge in other regions, indicating that although many women made initial visits, a significant number stopped before completing all required visits (Zega et al. 2023).

The issue of low or inconsistent ANC attendance is not solely due to economic or geographic factors. From a socio-cultural and educational standpoint, factors such as maternal knowledge, formal education level, attitude toward pregnancy, and support from family or partner have emerged as significant determinants (Sari and Manurung 2023). For instance, recent literature shows that pregnant women with low education, limited understanding of ANC importance, or lack of family/partner support are more likely to skip or not complete ANC visits (Azzahra and Ayubi 2025). In addition, structural conditions such as geographic accessibility to health facilities and the availability of health services often pose barriers, especially in remote or underserved areas (Rizkianti, Saptarini, and Rachmalina 2021)

Although many quantitative studies have identified various determinants of ANC visits including knowledge, education, economic status, family support, parity, and access to health facilities the literature lacks in-depth understanding of the meanings, perceptions, and socio-cultural processes experienced by pregnant women when making decisions about ANC. Quantitative studies tend to emphasize variable distribution and correlations but seldom explore how and why women make ANC-related decisions within their local contexts (Hanifah 2022; Rahmadhani and Hikmah 2020).

Therefore, through this article, the author intends to conduct a comprehensive literature review of factors affecting ANC visits, with emphasis on both quantitative determinants and narrative dimensions namely experiences, perceptions, cultural values, and social dynamics underlying pregnant women's decisions. This study aims to fill existing gaps by presenting a holistic understanding of ANC. The findings of this review are expected not only to yield theoretical contributions namely expanding conceptual frameworks of maternal health behavior but also practical contributions, offering recommendations for policymakers and healthcare providers to design culturally-sensitive and contextually appropriate interventions to improve sustained ANC attendance.

## **METHOD**

This study uses a qualitative approach with a literature review design to examine in depth the factors that influence Antenatal Care (ANC) visits. This approach was chosen because it is in line with the research objectives, which do not focus on testing statistical relationships, but rather on conceptual understanding, patterns of findings, and the meanings constructed in various previous studies. A literature review allows researchers to integrate various theoretical and empirical

perspectives and identify trends, gaps, and social context dynamics in the use of ANC. With this approach, the study is expected to provide a more comprehensive understanding of the complexity of individual, social, cultural, and structural factors that influence pregnant women's behavior in attending ANC visits.

Data collection was conducted by searching scientific articles in three main databases, namely PubMed, Google Scholar, and ScienceDirect. Literature searches were conducted using relevant keywords such as antenatal care, ANC visits, determinants of ANC, and maternal health utilization, both in English and Indonesian. The selected articles were limited to publications from 2020 to 2025 to ensure the data was up to date. The inclusion criteria included empirical research articles, both quantitative and qualitative, that discussed factors influencing ANC visits among pregnant women. From the four articles that met the inclusion criteria, a number of consistent patterns and themes emerged. Meanwhile, articles that were not relevant to the research focus, were not available in full text, or were merely opinions were excluded from the analysis. All selected articles were then analyzed thematically through a process of coding, concept grouping, and narrative synthesis to produce a structured overview of the factors that influence ANC visits.

## **RESULT AND DISCUSSION**

From the four articles that met the inclusion criteria, a number of consistent patterns and themes emerged regarding the factors that influence antenatal care (ANC) visits by pregnant women:

### **Mothers' knowledge of the importance of ANC**

One study showed that pregnant women's level of knowledge significantly affected their compliance with ANC visits: mothers with high levels of knowledge were much more likely to attend scheduled visits than those with low levels of knowledge (Tanberika, Sansuwito, and Hassan 2024). For example, in a study by Tanberika et al. (2024), among mothers with high knowledge, the percentage who adhered to the ANC schedule reached more than 80%, while mothers with low knowledge tended to be absent or have incomplete visits. (Tanberika et al. 2024).

### **Family and social support especially from husbands/partners as a motivating factor**

Studies conducted in the Clinic and Community Health Center work areas show that when mothers receive support from their husbands or other family members whether emotional, logistical, or financial ANC attendance rates are more consistent (Kamaliah 2024). Conversely, when family support is weak or decisions are made solely by the mother (without support), many admit to reducing the frequency of visits. This shows that social-family aspects play an important role in the realization of visits, not just physical access or services (Andini and Sartika 2025).

### **Access & structural conditions transportation, services, geographical conditions**

Structural factors emerge consistently: distance to health facilities, availability of transportation, and quality of services have a real impact on ANC utilization. In studies in Deli Serdang and a number of community health centers, variables such as mode of transportation and length of travel to health facilities were identified as dominant predictors of ANC compliance (Liesmayani et al. 2025). Thus, even with adequate knowledge and social support, structural barriers can be a serious obstacle to regular ANC visits.

### **Socioeconomic conditions, demographics, and risk perception especially in areas with geographic disparities**

Results from a large population analysis in eastern Indonesia (assumed to be an area with high disparities) show that non-use of ANC correlates with low socioeconomic status, specific geographic locations (particularly provinces with limited access), lack of previous health

checkups, and low knowledge of pregnancy or child health risks (Titaley et al. 2025). These data suggest that in communities with poverty or limited infrastructure, ANC visits are more likely to be neglected especially if mothers view pregnancy as “*normal*” without significant risks (Widyaningsih, &, and Pratiwi 2019). Overall, the literature review indicates that the determinants of ANC attendance are not singular: maternal knowledge, family support, structural access, socioeconomic status, and regional context all interact to shape ANC utilization rates.

The findings of this review reinforce the notion that ANC attendance depends not only on the availability of health services, but also on cognitive (knowledge), social (family support), structural (access and facilities), economic, and geographical factors. This is consistent with previous literature emphasizing the importance of a multidimensional approach to maternal health (Liesmayani et al. 2025; Tanberika et al. 2024). Interestingly, population studies in regions with geographical disparities (such as in eastern Indonesia) show that non-utilization of ANC is significantly higher in areas with poverty and difficult access, indicating that structural and socio-economic constraints can outweigh factors such as individual knowledge or motivation (Titaley et al. 2025). This confirms that efforts to increase ANC coverage are not sufficient with education or campaigns alone interventions must address aspects of access and structural inequality.

Family support has been proven to be a key factor research at community health centers and local clinics shows that without the support of their husbands/families, many mothers find it difficult to continue their visits (Widyaningsih et al. 2019). These findings are in line with health behavior theory, which states that social support and the social environment influence individual behavior, including in the context of maternal health. Therefore, interventions that involve the family such as education for husbands and community support can increase ANC compliance. In terms of policy and practice, these results indicate that ANC improvement programs must be holistic: not only providing services, but also strengthening education for mothers and their families improving physical access (transportation, distribution of facilities), and accommodating economic and regional factors. Particularly for remote or high-risk areas, contextual interventions are needed so that ANC can be accessed sustainably. However, most of the studies reviewed used quantitative cross-sectional designs, so information about mothers' decision-making processes, risk perceptions, and socio-cultural dynamics was not explored in depth. Therefore, it is recommended that future research use qualitative methods in-depth interviews or ethnography to explore the meaning behind the numbers and understand the local context that influences pregnant women's decisions regarding ANC.

Although a number of studies in this review show variations in factors correlated with the use of Antenatal Care (ANC) such as maternal knowledge, family support, economic conditions, and access to services the majority of these studies use a quantitative cross-sectional design (Juwita, Aisyn, and Nursupian 2025). Therefore, they are usually only able to detect associations at a single point in time, without exploring how pregnant women make decisions, how perceptions of pregnancy risk develop, or how cultural norms and social dynamics influence their choices. This is a significant limitation: the aspects of meaning, motivation, and social negotiation processes behind the numbers tend to be overlooked (Wafiroh et al. 2025). Thus, further research using qualitative approaches such as in-depth interviews, group discussions, or ethnography is essential to uncover the context and dynamics behind quantitative data. For example, a qualitative study in rural areas showed that during the COVID-19 pandemic, pregnant women delayed or abandoned ANC not only because of limited services, but also because of fear of infection, transportation restrictions, and changes in services that made them hesitant (e.g., condensed or limited services) (Anggraeni et al. 2023). Findings such as these

provide contextual insights for example, how perceptions of risk, trust in services, or previous negative experiences influence decisions that cannot be obtained from cross-sectional surveys.

From an obstetrics perspective, the use of qualitative methods is important because it enriches our understanding of pregnancy practices and the needs of pregnant women and their families in the local context. Knowledge alone is often considered sufficient as a determining factor, but the reality on the ground shows that accessibility to services, cultural norms, family structures, and risk interpretations play a significant role (Rosmanely et al. 2025). A qualitative approach allows midwives, health planners, and researchers to capture the voices of mothers, partners, and communities so that midwifery interventions can be designed not only based on statistical data, but also based on a fundamental understanding of how services are perceived, interpreted, and accessed in real life. This aligns with literature recommendations that mothers' barriers to ANC are multi-layered: administrative, service system, and personal perceptions (Escañuela et al. 2022).

In practical and policy terms, the results of this study indicate that in order to improve the coverage and quality of ANC, efforts should not be limited to knowledge campaigns alone. A more holistic strategy is needed for example, involving husbands or family members in maternal counseling, improving access to services (transportation, flexible service hours, outreach to villages), and designing services that are culturally sensitive and contextual to the needs of the local community (Widyaningsih et al. 2025). Health policies must take into account demographic, social, and geographic diversity so that ANC services are truly accessible and usable by pregnant women from all backgrounds. In-depth qualitative research will help map real barriers and enable the formulation of relevant interventions. As a suggestion for further research, it is recommended that qualitative studies be conducted in several areas with different characteristics urban, rural, remote in order to reveal the variety of decision-making processes, risk perceptions, and socio-cultural dynamics that influence ANC visits. Findings such as these will enrich the evidence base in midwifery science, supporting the development of more humane, contextual, and effective maternal health policies and interventions.

## **CONCLUSION**

This literature review shows that pregnant women's compliance with antenatal care (ANC) visits is influenced by various factors, ranging from individual characteristics, social environment, structural conditions, to socioeconomic background. Mothers' understanding of pregnancy, the involvement of family members, especially their partners, the availability and accessibility of health services, as well as their economic situation and place of residence have been proven to be the main factors determining the regularity of ANC visits. This shows that the utilization of ANC cannot be separated from the influence of the social environment and living conditions of pregnant women. From a theoretical perspective, these findings reinforce the concept of health behavior that views individuals as part of a broader social system. A mother's decision to attend ANC visits is not an isolated personal choice, but rather is shaped by the interaction between her level of knowledge, the social support she receives, and her access to available services. Thus, this study makes an important contribution to expanding our understanding of the determinants of comprehensive maternal health service utilization.

From the perspective of implementation and policy, the results of this study indicate that efforts to increase ANC coverage should not be carried out partially. The approach required must include continuous education for pregnant women, active family involvement, improvement of transportation facilities, and reduction of service gaps in areas with geographical and economic limitations. Community-based approaches and policies that favor disadvantaged areas are important strategies for promoting equitable access to ANC.

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