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The Relationship Between Husband's Support and Pregnant Women's Adherence to Antenatal Care Visits

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ABSTRACT

Background: *Husband's support plays a crucial role in promoting maternal health behaviors, particularly adherence to antenatal care (ANC) visits, which are essential for preventing pregnancy-related complications and improving maternal and neonatal outcomes. However, inadequate family support remains a barrier to regular ANC utilization among pregnant women in Indonesia. Identifying the relationship between husband's support and adherence to ANC visits is important for developing family-centered maternal health interventions.*

Research Objective: *This study aimed to determine the relationship between husband's support and pregnant women's adherence to antenatal care visits in Makassar City, Indonesia.*

Methods: *This analytical observational study employed a cross-sectional design. A total of 31 pregnant women were recruited using a total sampling technique. Data on respondents' characteristics, husband's support (emotional, informational, instrumental, and appraisal support), and adherence to antenatal care visits were collected using a structured questionnaire. Data were analyzed using descriptive statistics and the Chi-square test with a significance level of $p < 0.05$.*

Results: *Most respondents were aged 20–35 years (74.2%), had a high educational level (67.7%), and received good husband's support (64.5%). Furthermore, 67.7% of pregnant women adhered to the recommended antenatal care schedule. Bivariate analysis revealed a statistically significant relationship between husband's support and adherence to antenatal care visits ($p = 0.001$). Pregnant women who received good husband's support demonstrated a higher level of adherence to ANC visits than those who received poor support.*

Conclusion: *Husband's support was significantly associated with pregnant women's adherence to antenatal care visits. Strengthening family-centered antenatal care through active husband involvement in maternal health education and counseling is essential to improve adherence to recommended ANC services and contribute to better maternal and neonatal health outcomes.*

Keywords *: Antenatal Care; Husband's Support; Pregnant Women*

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BACKGROUND

Maternal health is one of the primary indicators used to measure the success of a country's health development. Reducing maternal mortality and neonatal mortality remains a key target of the Sustainable Development Goals (SDGs) 2030, particularly Goal 3, which aims to ensure healthy lives and promote well-being for all at all ages (Coulibaly & Kouanda, 2023). One of the most effective strategies for reducing the risk of pregnancy and childbirth complications is ensuring pregnant women's adherence to Antenatal Care (ANC) visits according to recommended standards (Beriso et al., 2023). Regular ANC enables healthcare providers to detect pregnancy related risks early, provide timely interventions, and improve maternal preparedness for childbirth and the postpartum period (Buchala et al., 2022). Despite substantial progress in expanding maternal healthcare services, adherence to recommended ANC visits remains a significant challenge in many low- and middle-income countries, including Indonesia (Kahssay et al., 2022).

Globally, the World Health Organization (WHO) recommends a minimum of eight antenatal care contacts during pregnancy to improve maternal and neonatal outcomes (Mola et al., 2023). Although ANC coverage has increased in many countries, disparities in access and adherence to scheduled visits persist, particularly in resource limited settings (Nizum et al., 2023). Previous studies have identified several determinants influencing ANC utilization, including socioeconomic status, educational level, cultural beliefs, healthcare accessibility, and family support (Funsani et al., 2021). Among these factors, husband's support has consistently emerged as a critical determinant because husbands often serve as primary decision-makers within the family, providers of financial resources, sources of emotional encouragement, and facilitators of healthcare utilization during pregnancy(Lukin et al., 2023) .

In Indonesia, the coverage of antenatal care services has shown continuous improvement over the past decade. Nevertheless, adherence to the recommended schedule of ANC visits remains inconsistent across different regions (Dakua & Das, 2023). Many pregnant women still fail to complete the recommended number of visits due to limited knowledge of pregnancy care, transportation barriers, financial constraints, work-related responsibilities, and inadequate family support. Such conditions may delay the early detection and management of pregnancy complications, thereby increasing the risk of maternal and neonatal morbidity and mortality (Khanna et al., 2023). Consequently, maternal healthcare strategies should extend beyond focusing solely on pregnant women by actively engaging family members, particularly husbands, in supporting maternal health throughout pregnancy (De Rosa et al., 2022).

Makassar City, one of the largest metropolitan areas in Eastern Indonesia, has relatively well-developed healthcare infrastructure, including primary healthcare centers, maternity clinics, and referral hospitals. However, the availability of healthcare facilities does not necessarily guarantee optimal compliance with antenatal care recommendations. A considerable number of pregnant women still initiate ANC late, miss scheduled visits, or seek care only when experiencing pregnancy-related complaints (Desalegn et al., 2022). This phenomenon suggests that non-medical determinants, especially family support, continue to play an essential role in shaping maternal healthcare-seeking behavior despite adequate access to health services (Kukoyi et al., 2023).

From the perspective of midwifery practice, husband's support encompasses four major dimensions, emotional support, informational support, instrumental support, and appraisal support (Asratie, 2022). Emotional support includes empathy, affection, and psychological reassurance that help reduce maternal anxiety during pregnancy. Informational support refers to providing accurate information regarding the importance of routine ANC visits and healthy pregnancy practices. Instrumental support includes financial assistance, transportation, and accompanying pregnant women during healthcare

visits (Naja et al., 2020). Appraisal support consists of encouragement, appreciation, and positive reinforcement that enhance maternal confidence and motivation to maintain regular antenatal care attendance. Collectively, these dimensions are expected to improve pregnant women's adherence to ANC recommendations and contribute to better maternal and fetal health outcomes (Abu-Baker et al., 2022).

Several previous studies have demonstrated a positive association between husband's support and maternal healthcare utilization (Mutowo et al., 2021). However, most existing research has primarily focused on general ANC attendance or examined sociodemographic determinants such as maternal age, education, occupation, and parity (Ishola & Kazeem, 2022). Studies investigating husband's support have largely been conducted in rural settings or underserved areas with limited healthcare access, making their findings less applicable to urban populations characterized by greater socioeconomic diversity. Furthermore, many studies have measured husband's support using a single or limited indicator, without comprehensively assessing its multiple dimensions (Almvik et al., 2023).

The research gap lies in the limited empirical evidence regarding the relationship between multidimensional husband's support and pregnant women's adherence to antenatal care visits in urban settings, particularly in Makassar City. Rapid urbanization, increased female workforce participation, changing family dynamics, and evolving gender roles may influence how husbands provide support during pregnancy. These contextual changes necessitate further investigation to generate evidence that reflects the realities of urban communities and supports the development of effective family-centered maternal healthcare interventions.

The novelty of this study is its comprehensive assessment of husband's support through four dimensions emotional, informational, instrumental, and appraisal support—and its association with pregnant women's adherence to the recommended antenatal care schedule in Makassar City. Unlike previous studies that focused primarily on rural populations or limited indicators of family support, this research specifically examines pregnant women living in an urban environment with diverse socioeconomic characteristics. The findings are expected to provide a more comprehensive understanding of the role of husbands in promoting maternal health service utilization and serve as scientific evidence for developing family-centered antenatal care programs that actively involve husbands in maternal health education, decision-making, and pregnancy support.

To analyze the relationship between husband's support and pregnant women's adherence to recommended Antenatal Care (ANC) visits in Makassar City, Indonesia.

METHODS

This study employed a quantitative analytic design with a cross-sectional approach (Mwakawanga et al., 2024) to examine the relationship between husband's support and pregnant women's adherence to antenatal care (ANC) visits in Makassar City, Indonesia. The study was conducted from January to April 2026 at a selected public health center in Makassar City.

The study population consisted of pregnant women attending ANC services during the study period. A total of 31 pregnant women were recruited using total sampling, as all eligible participants meeting the inclusion criteria were included in the study.

Data were collected using a structured questionnaire consisting of respondents' characteristics, husband's support (emotional, informational, instrumental, and appraisal support), and ANC adherence. The questionnaire had been tested for validity and reliability, with a Cronbach's alpha > 0.70 indicating acceptable reliability.

Data were analyzed using IBM SPSS Statistics version 27. Descriptive statistics were used to summarize respondents' characteristics, while the relationship between husband's support

and ANC adherence was analyzed using the Chi-square test. Statistical significance was determined at $p < 0.05$.

RESULTS

Univariate Analysis

A total of 31 pregnant women participated in this study. The respondents' characteristics based on age, education, employment status, parity, husband's support, and adherence to antenatal care (ANC) visits are presented in Table 1.

Table 1.
Characteristics of Respondents (n = 31)

Characteristics	Frequency (n)	Percentage (%)
Age		
<20 or >35 years	8	25.8
20–35 years	23	74.2
Education		
Low	10	32.3
High	21	67.7
Employment Status		
Unemployed	19	61.3
Employed	12	38.7
Parity		
Primigravida	12	38.7
Multigravida	19	61.3
Husband's Support		
Poor	11	35.5
Good	20	64.5
ANC Adherence		
Non-adherent	10	32.3
Adherent	21	67.7

Table 1 shows that the majority of respondents were 20–35 years old (74.2%), had a high educational level (67.7%), and were unemployed (61.3%). Most respondents were multigravida (61.3%). Regarding the main study variables, 64.5% of pregnant women reported receiving good husband's support, while 67.7% were adherent to the recommended antenatal care (ANC) visits.

Bivariate Analysis

The association between husband's support and pregnant women's adherence to antenatal care visits was analyzed using the Chi-square test.

Table 2.
Association Between Husband's Support and Adherence to Antenatal Care Visits

Husband's Support	Adherent n (%)	Non-adherent n (%)	Total	p-value
Good	18 (90.0)	2 (10.0)	20	
Poor	3 (27.3)	8 (72.7)	11	0.001
Total	**21 (67.7)**	**10 (32.3)**	**31**	

Among the 20 pregnant women who received good husband's support**,** 18 (90.0%) adhered to the recommended ANC visits, whereas only 2 (10.0%) were non-adherent. In contrast, among the 11 women who received poor husband's support, only 3 (27.3%) adhered to ANC visits, while 8 (72.7%) were non-adherent.

The Chi-square analysis revealed a statistically significant association between husband's support and pregnant women's adherence to antenatal care visits ($p = 0.001$). These findings indicate that pregnant women who received good support from their

husbands were significantly more likely to comply with the recommended ANC schedule than those receiving poor support.

The study found that most pregnant women received good husband's support and adhered to the recommended antenatal care schedule. Bivariate analysis demonstrated a significant relationship between husband's support and ANC adherence ($p = 0.001$). These findings suggest that emotional, informational, instrumental, and appraisal support provided by husbands play an important role in improving pregnant women's compliance with antenatal care visits. Therefore, strengthening family-centered antenatal care programs that actively involve husbands may contribute to improving maternal health service utilization and pregnancy outcomes.

DISCUSSION

The present study demonstrated a statistically significant relationship between husband's support and pregnant women's adherence to antenatal care (ANC) visits in Makassar City ($p=0.001$). Pregnant women who received good support from their husbands were more likely to comply with the recommended ANC schedule than those who received poor support. These findings indicate that the husband's role is an important determinant of maternal health service utilization during pregnancy.

Husband's support contributes to maternal adherence through several mechanisms. Emotional support, such as providing reassurance and reducing anxiety, enhances pregnant women's confidence in seeking routine antenatal care (Kahssay et al., 2022). Informational support enables husbands to encourage timely health-seeking behavior by increasing awareness of the importance of regular ANC visits. Instrumental support, including financial assistance, transportation, and accompanying wives to healthcare facilities, reduces practical barriers that often prevent pregnant women from accessing maternal health services. In addition, appraisal support motivates pregnant women to maintain healthy behaviors throughout pregnancy (O'Dair et al., 2022). Collectively, these forms of support create a positive family environment that promotes adherence to recommended antenatal care (Dun-Dery et al., 2021).

The findings of this study are consistent with previous research reporting that family involvement, particularly husband's support, is associated with improved maternal healthcare utilization. Studies conducted in developing countries have shown that women who receive strong support from their husbands are more likely to initiate ANC early, complete the recommended number of visits, and utilize skilled maternal healthcare services. Active husband involvement also contributes to timely decision-making when pregnancy complications occur, thereby reducing delays in accessing appropriate healthcare.

The high proportion of respondents who adhered to ANC visits in this study (67.7%) may reflect the relatively good accessibility of maternal healthcare services in Makassar City. Nevertheless, approximately one-third of respondents remained non-adherent despite the availability of healthcare facilities. This finding suggests that improving healthcare infrastructure alone is insufficient to ensure optimal maternal healthcare utilization. Behavioral and family-related factors remain essential determinants of adherence

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From a midwifery perspective, these findings emphasize the importance of adopting a family-centered approach to antenatal care. Midwives should actively encourage husbands to participate in maternal health education, counseling sessions, and routine ANC visits. Educational interventions targeting both pregnant women and their husbands may improve knowledge regarding pregnancy danger signs, birth preparedness, and the importance of completing the recommended ANC schedule. Such collaborative strategies have the potential to strengthen family support systems and improve maternal and neonatal health outcomes.

The novelty of this study lies in its examination of husband's support as a multidimensional construct encompassing emotional, informational, instrumental, and appraisal support within an urban Indonesian setting. While previous studies have primarily focused on rural populations or general family support, this study provides evidence that comprehensive husband involvement remains a significant predictor of ANC adherence even in metropolitan areas with relatively good healthcare access. These findings support the integration of husband-centered interventions into routine maternal healthcare programs.

This study has several limitations. First, the relatively small sample size (31 respondents) may limit the generalizability of the findings to the broader population. Second, the cross-sectional design does not permit causal inferences between husband's support and ANC adherence. Third, data were collected using self-reported questionnaires, which may be subject to recall and social desirability bias. Future studies with larger sample sizes, multicenter settings, and longitudinal or prospective designs are recommended to further examine the causal relationship between husband's support and maternal healthcare utilization.

Overall, the findings highlight that strengthening husband's involvement should become an integral component of maternal health promotion programs. Increasing family participation through education, counseling, and community-based interventions may enhance pregnant women's adherence to antenatal care and ultimately contribute to improving maternal and neonatal health outcomes.

CONCLUSION

This study found a significant relationship between husband's support and pregnant women's adherence to antenatal care (ANC) visits in Makassar City (p=0.001). Pregnant women who received good husband's support were more likely to comply with the recommended ANC schedule than those with poor support.

Midwives and healthcare providers should encourage greater husband involvement in antenatal care through family-centered education and counseling to improve pregnant women's adherence to ANC visits. Further studies with larger samples are recommended to confirm these findings.

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