

PSYCHOSOCIAL DETERMINANTS OF ANTENATAL CLASS PARTICIPATION: AN INTEGRATIVE ANALYSIS OF HEALTH LITERACY, SELF-EFFICACY, AND SPOUSAL SUPPORT

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ABSTRACT

Background: Maternal mortality remains a major public health challenge, particularly in developing countries. Antenatal classes are effective promotive and preventive interventions to improve maternal preparedness, early detection of pregnancy complications, and utilization of maternal healthcare services. However, participation in antenatal education programs remains suboptimal. Psychosocial factors, including health literacy, self-efficacy, and spousal support, may influence maternal participation in antenatal classes. **Objective:** This study aimed to analyze the psychosocial determinants of antenatal class participation among pregnant women at Puskesmas Kasihan II. **Methods:** A quantitative analytic study with a cross-sectional design was conducted among 35 pregnant women. Participants were recruited using total sampling. Data were collected using validated structured questionnaires assessing health literacy, self-efficacy, and spousal support. Antenatal class participation was evaluated using attendance records. Data were analyzed using Chi-square and multivariate logistic regression tests with a significance level of $p < 0.05$. **Results:** Significant associations were found between health literacy ($p = 0.021$), self-efficacy ($p = 0.013$), spousal support ($p = 0.004$), and antenatal class participation. Women with higher health literacy, stronger self-efficacy, and better spousal support were more likely to actively participate in antenatal classes. Spousal support was identified as the strongest predictor (OR=4.21; 95% CI=1.32–13.44; $p = 0.002$). **Conclusion:** Psychosocial determinants significantly influence antenatal class participation. Family-centered maternal interventions are essential to improve maternal health outcomes.

Keywords: Antenatal Class, Health Literacy, Self-Efficacy, Spousal Support, Maternal Health.

INTRODUCTION

Maternal health remains a major priority in both global and national health development because it is closely associated with the quality of future generations (Solnes Miltenburg et al., 2023; Souza et al., 2024). World Health Organization reported that approximately 287,000 women died due to pregnancy and childbirth-related complications in 2020, with the majority of deaths occurring in developing countries and largely preventable through optimal maternal healthcare services. These findings indicate that high-quality maternal healthcare, particularly through promotive and preventive approaches, plays a crucial role in reducing maternal morbidity and mortality (WHO, 2023).

In Indonesia, the Maternal Mortality Ratio (MMR) remains a major challenge in achieving the Sustainable Development Goals (SDGs). National data indicate that Indonesia's MMR remains approximately 189 per 100,000 live births, while the SDGs target by 2030 is less than 70 per 100,000 live births (Kemenkes RI, 2024; WHO, 2025). The persistently high

MMR highlights the urgent need to improve the quality of maternal healthcare services (Mahmood et al., 2021), particularly in terms of maternal education and empowerment to optimize healthcare utilization during pregnancy (Andriani et al., 2021; Kurjak et al., 2023). One of the strategic programs developed by the Kementerian Kesehatan Republik Indonesia is the Pregnant Women Class or antenatal class program. This program aims to improve maternal knowledge, skills, psychological readiness, and the ability to recognize danger signs during pregnancy and childbirth (Kemenkes RI, 2023). Nevertheless, the national coverage of active participation in antenatal classes has not yet achieved the targeted rate of 95% (Dinkes DIY, 2023).

Antenatal classes represent an effective promotive and preventive intervention to improve birth preparedness, compliance with antenatal care visits, and early detection of pregnancy-related complications. Through these activities, pregnant women receive education regarding pregnancy care, childbirth preparation, postpartum care, newborn care, and maternal complication prevention (Hanafie Das et al., 2022). However, participation in the complete series of antenatal classes remains suboptimal in many primary healthcare settings (Penman et al., 2023).

In the Daerah Istimewa Yogyakarta, Bantul Regency is recognized as an area with relatively complex maternal health challenges. In the working area of Puskesmas Kasihan II, the coverage of K4 antenatal visits is relatively high; however, participation in complete antenatal class attendance remains inconsistent (Dinkes Kab. Bantul, 2024). Preliminary data demonstrated that only approximately 60–65% of registered pregnant women attended the complete series of antenatal classes regularly, with a minimum of four sessions. This low participation rate is concerning because antenatal classes play a strategic role in improving maternal preparedness for childbirth and reducing the risk of complications through early detection during pregnancy.

Participation in antenatal classes is influenced not only by healthcare accessibility but also by psychosocial factors affecting maternal health behavior during pregnancy. One important determinant is health literacy, defined as an individual's ability to obtain, understand, evaluate, and utilize health information for appropriate decision-making (Nutbeam & Lloyd, 2021). Pregnant women with adequate health literacy are more likely to understand the importance of antenatal care and the benefits of participating in antenatal classes (Bello et al., 2022). Conversely, low health literacy may limit the ability to understand health information, thereby reducing maternal healthcare utilization. Previous studies reported that more than 40% of pregnant women in developing countries still have inadequate health literacy, which negatively affects maternal health behavior during pregnancy (Brach & Harris, 2021).

In addition to health literacy, self-efficacy is another important determinant of maternal health behavior. According to the self-efficacy theory proposed by Albert Bandura, an individual's belief in their own capability influences motivation and behavioral performance (Woodcock & Tournaki, 2023). Pregnant women with higher self-efficacy tend to be more proactive in seeking health information, participating in educational programs, and preparing for childbirth. In contrast, low self-efficacy may contribute to anxiety, low self-confidence, and reduced participation in maternal healthcare services (Savory et al., 2021).

Another psychosocial factor influencing antenatal class participation is spousal support. Spousal support may include emotional, informational, appraisal, and instrumental support, such as accompaniment and transportation assistance during pregnancy. Within the Indonesian sociocultural context, husbands frequently play a dominant role in family decision-making, including decisions related to healthcare utilization. Insufficient spousal support may therefore become a barrier preventing pregnant women from regularly attending antenatal classes. Conversely, women who receive active support from their husbands are more likely to participate in maternal health programs (Desiana Rena et al., 2026).

Several studies have investigated factors associated with antenatal class participation; however, most studies have examined these variables separately. Research integrating health literacy, self-efficacy, and spousal support into a single analytical model remains limited, particularly in primary healthcare settings in Indonesia. A multidimensional approach is therefore necessary to comprehensively understand the psychosocial determinants influencing maternal participation in antenatal classes.

Based on the aforementioned background, this study was conducted to analyze the psychosocial determinants of antenatal class participation through an integrative approach involving health literacy, self-efficacy, and spousal support among pregnant women in the working area of Puskesmas Kasihan II. The findings are expected to provide evidence for developing family-based promotive and preventive interventions aimed at improving antenatal class participation and enhancing maternal health outcomes while reducing pregnancy and childbirth-related complications.

METHOD

This study employed a quantitative analytic design using a cross-sectional approach. The study design was selected to analyze the association between psychosocial determinants, including health literacy, self-efficacy, and spousal support, and pregnant women's participation in antenatal classes during a single period of observation. This approach was considered appropriate for identifying factors associated with participatory maternal health behaviors in promotive and preventive services at the primary healthcare level.

The study was conducted at Puskesmas Kasihan II from November 2025 to January 2026. The study population consisted of all pregnant women who attended antenatal care services and were registered in antenatal class activities within the working area of Puskesmas Kasihan II. Based on preliminary data, the total population comprised 35 pregnant women actively participating in antenatal care services.

A total sampling technique was applied, in which all eligible members of the population were recruited as study participants. The inclusion criteria were pregnant women in the second and third trimesters, low-risk pregnancy status, ability to read and write, and willingness to participate in the study. The exclusion criteria included incomplete questionnaire responses and absence during the data collection process.

The independent variables in this study were health literacy, self-efficacy, and spousal support, while the dependent variable was participation in antenatal classes. Health literacy was defined as the ability of pregnant women to obtain, understand, and utilize health-related information during pregnancy. Self-efficacy referred to maternal confidence in performing positive health behaviors during pregnancy. Spousal support included emotional, informational, instrumental, and appraisal support provided by the husband to the pregnant woman. Antenatal class participation was measured based on attendance records, with active participation defined as attending at least four antenatal class sessions according to the guidelines issued by Kementerian Kesehatan Republik Indonesia.

Data were collected using structured questionnaires that had been adapted according to the study objectives. The research instruments consisted of questionnaires assessing health literacy, self-efficacy, and spousal support, as well as an observation sheet for antenatal class participation. Instrument validity and reliability testing were conducted prior to data collection to ensure measurement accuracy and consistency. Participation data were obtained from antenatal class attendance records at the primary healthcare center.

Data collection was initiated after obtaining research permission and ethical clearance from the Ethics Committee of Universitas Alma Ata with approval number

KE/AA/XII/10112971/EC/2025. The researchers coordinated with the healthcare center staff and followed the antenatal class schedule. Eligible participants received an explanation regarding the study objectives and procedures and were asked to provide written informed consent before completing the questionnaires.

Data analysis was performed using a computerized statistical software program. Univariate analysis was conducted to describe respondent characteristics and the distribution of study variables using frequencies, percentages, means, and standard deviations. Bivariate analysis was performed using the Chi-square test to determine the associations between health literacy, self-efficacy, spousal support, and antenatal class participation, with a significance level of $p < 0.05$. Furthermore, multivariate analysis using multiple logistic regression was conducted to identify the most dominant psychosocial determinant influencing antenatal class participation.

This study adhered to the ethical principles of autonomy, beneficence, non-maleficence, and confidentiality. Respondent confidentiality was strictly maintained, and all collected data were used solely for research purposes.

RESULTS AND DISCUSSION

Results

Table 1
Characteristics Respondents

Characteristics	Frequency (n)	Presentation (%)
Age		
<20 years	2	5.7
20 – 35 years	28	80.0
>35 years	5	14.3
Education		
Basic education	7	20.0
Secondary education	20	57.1
Higher education	8	22.9
Work		
housewife ladder	21	60.0
Work	14	40.0
Age Pregnancy		
Second Trimester	13	37.1
Third Trimester	22	62.9

Based on Table 1, the majority of respondents were aged 20–35 years, accounting for 28 respondents (80.0%). Most respondents had a secondary level of education, comprising 20 respondents (57.1%), and the majority were housewives, totaling 21 respondents (60.0%). Based on gestational age, most respondents were in the third trimester of pregnancy, accounting for 22 respondents (62.9%).

Table 2

Distribution of Health Literacy, Self-Efficacy, Spousal Support, and Participation Antenatal Class

Variables	Frequency (n)	Presentation (%)
Health Literacy		
Good	22	62.9
Not enough	13	37.1

Self-Efficacy		
Tall	24	68.6
Low	11	31.4
Spousal Support		
Good	26	74.3
Not enough	9	25.7
Participation antenatal classes		
Active (>4 times)	23	65.7
Inactive (<4 times)	12	34.3

Based on Table 2, some big respondents have health literacy category Good as many as 22 respondents (62.9%), high self-efficacy as many as 24 respondents (68.6%), and support husband category Good as many as 26 respondents (74.3%). Most of them Mother pregnant follow antenatal classes in active as many as 23 respondents (65.7%).

Table 3
Relationship between Health Literacy and Participation Antenatal Class

Health Literacy	Active n (%)	Inactive n (%)	Total	p-value
Good	18 (81.8)	4 (18.2)	22	0.021
Not enough	5 (38.5)	8 (61.5)	13	
Total	23	12	35	

Based on Table 3, mother pregnant with good health literacy more Lots follow antenatal classes in active compared to respondents with low health literacy . The results of the Chi-Square test show there is connection significant between health literacy and participation antenatal class (p=0.021).

Table 4
Relationship between Self-Efficacy and Participation Antenatal Class

Self Efficacy	Active n (%)	Inactive n (%)	Total	p-value
Tall	19 (79.2)	5 (20.8)	24	0.013
Low	4 (36.4)	7 (63.6)	11	
Total	23	12	35	

Based on Table 4, some big Mother pregnant with high self-efficacy follow antenatal classes in active as many as 19 respondents (79.2%). The results of the analysis show there is connection significant between self-efficacy and participation antenatal class (p=0.013).

Table 5
Relationship between Spousal Support and Participation Antenatal Class

Spousal Support	Active n (%)	Inactive n (%)	Total	p-value
Good	21 (80.8)	5 (19.2)	26	0.004
Not enough	2 (22.2)	7 (77.8)	9	
Total	23	12	35	

Based on Table 5, respondents who received support husband category Good more Lots follow antenatal classes in active compared to respondents with support husband less . The

results of the Chi-Square test show there is connection significant between spousal support and participation antenatal class ($p=0.004$).

Table 6

Analysis Multivariate Determinant Psychosocial to Participation Antenatal Class			
Variables	OR	95% CI	p-value
Health Literacy	2.87	1.18–7.02	0.018
Self-Efficacy	3.14	1.29–8.11	0.011
Spousal Support	4.21	1.32–13.44	0.002

Based on Table 6, the results regression logistics show that spousal support is the most dominant factor that influences participation Mother pregnant in antenatal classes with OR value =4.21 (95% CI=1.32–13.44; $p=0.002$). Apart from that, health literacy and self-efficacy were also proven influential significant to participation antenatal classes

Discussion

The results of this study demonstrated that health literacy, self-efficacy, and spousal support were significantly associated with pregnant women's participation in antenatal classes at Puskesmas Kasihan II. These findings indicate that maternal participation in antenatal class programs is influenced not only by healthcare accessibility but also by psychosocial factors that shape maternal health behaviors during pregnancy.

In this study, health literacy was significantly associated with antenatal class participation ($p=0.021$). Pregnant women with higher levels of health literacy were more likely to actively participate in antenatal classes compared to those with lower health literacy. This finding suggests that the ability to understand health information influences maternal awareness and utilization of promotive and preventive healthcare services during pregnancy. Women with adequate health literacy are more capable of understanding the benefits of group education, recognizing danger signs during pregnancy, and making appropriate health-related decisions (Nurfadilah et al., 2025).

The findings are consistent with previous studies reporting a significant association between health literacy and maternal empowerment among pregnant women (Carbone et al., 2024). Adequate health literacy enhances women's ability to understand pregnancy-related information and increases engagement in maternal healthcare services. Other studies also demonstrated that antenatal education could reduce the negative impact of inadequate health literacy on birth outcomes by improving maternal understanding during pregnancy (Ahsan, 2024).

Furthermore, a qualitative study conducted in Indonesia in 2023 found that maternal health literacy influenced women's ability to seek, evaluate, and utilize health information related to maternal health behaviors during pregnancy (Putri et al., 2023). These findings support the present study, indicating that women with better health literacy are more likely to regularly attend antenatal classes.

Self-efficacy was also found to be significantly associated with antenatal class participation ($p=0.013$). Pregnant women with higher self-efficacy were more actively involved in the complete series of antenatal classes compared to women with lower self-efficacy. Self-efficacy reflects maternal confidence in managing pregnancy, preparing for childbirth, and performing positive health behaviors independently. Higher levels of self-confidence may increase maternal motivation to engage in health education activities during pregnancy (Alizadeh-Dibazari et al., 2023).

The findings are consistent with the self-efficacy theory proposed by Albert Bandura, which emphasizes that an individual's belief in their capabilities strongly influences motivation and behavior. Pregnant women who believe in their ability to manage pregnancy-related

challenges tend to be more proactive in seeking information and utilizing healthcare services (Tang et al., 2023). A study conducted in China in 2025 reported that self-efficacy was significantly associated with maternal health behaviors and served as an important mediator in improving maternal psychological well-being. The study also suggested that increased self-efficacy strengthens women's ability to manage pregnancy conditions and enhances participation in maternal healthcare programs.

Similarly, a study conducted in Indonesia in 2022 demonstrated that self-efficacy significantly influenced compliance with antenatal care (ANC) visits. Women with higher self-efficacy showed better adherence to ANC attendance compared to those with lower self-efficacy. These findings further support the present study, indicating that self-confidence is an important determinant of participatory maternal behavior in antenatal classes.

The present study also identified spousal support as the most dominant factor influencing antenatal class participation, with an OR value of 4.21 and $p=0.002$. Pregnant women who received adequate support from their husbands were more likely to actively participate in antenatal classes compared to those with limited spousal support. In this study, spousal support included emotional, informational, appraisal, and instrumental support, such as accompaniment and transportation assistance during maternal healthcare activities (Degefa et al., 2024).

These findings are consistent with a 2023 study published in BMC Pregnancy and Childbirth, which reported that perceived spousal support significantly influenced childbirth self-efficacy among pregnant women. Spousal support was shown to increase maternal self-confidence, reduce pregnancy-related anxiety, and improve childbirth preparedness. Another study conducted in 2025 regarding husband involvement in antenatal classes also demonstrated that partner support plays a critical role in increasing maternal participation in antenatal education and maternal health-related decision-making during pregnancy.

Within the Indonesian sociocultural context, husband involvement represents a strategic factor because healthcare utilization decisions are often influenced by family members, particularly spouses. Spousal support not only assists women physically but also enhances psychological motivation to participate in maternal healthcare programs. Therefore, a family-centered maternity care approach is essential to improve the effectiveness of antenatal class programs in primary healthcare settings (Pebryatie et al., 2022).

Overall, the findings of this study suggest that participation in antenatal classes is the result of multidimensional interactions among health literacy, self-efficacy, and family social support. These psychosocial determinants interact with one another in shaping maternal health behaviors during pregnancy. The findings indicate that improving antenatal class participation requires not only healthcare service provision but also maternal empowerment strategies and active family involvement.

The implications of this study highlight the importance of strengthening health education based on health literacy, enhancing maternal self-efficacy through counseling and psychological support, and optimizing husband involvement in antenatal class programs. These strategies are expected to increase pregnant women's participation in promotive and preventive maternal healthcare services, thereby supporting efforts to reduce pregnancy-related complications and improve maternal health outcomes.

LIMITATION OF THE STUDY

This study has several limitations. First, the cross-sectional design limited the ability to determine causal relationships between psychosocial factors and antenatal class participation. Second, the study was conducted in a single primary healthcare center, Puskesmas Kasihan II,

with a relatively small sample size, which may limit the generalizability of the findings. Third, data were collected using self-reported questionnaires, which may have introduced response and social desirability bias. In addition, other factors such as socioeconomic status, cultural beliefs, and healthcare accessibility were not analyzed in this study. Future studies with larger samples and longitudinal designs are recommended to provide more comprehensive evidence regarding determinants of antenatal class participation.

CONCLUSIONS AND SUGGESTIONS

Health literacy, self-efficacy, and spousal support were significantly associated with antenatal class participation among pregnant women at Puskesmas Kasihan II. Spousal support was identified as the most dominant factor influencing participation. These findings highlight the importance of psychosocial and family-centered approaches in improving maternal participation in antenatal classes. Healthcare providers should strengthen antenatal education programs by improving maternal health literacy, self-efficacy, and husband involvement. Further studies with larger samples and broader settings are recommended.

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ETHICAL CONSIDERATIONS

Conflict of Interest Statement

The authors declare that there are no conflicts of interest related to this study.

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