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Psychosocial factors associated with anemia among pregnant women attending a community health center

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Abstract

Background: Anemia during pregnancy remains a major public health problem because it increases the risk of adverse maternal and fetal outcomes. Psychosocial factors, including husband's support, adherence to iron supplementation, self-efficacy, and maternal knowledge, may influence anemia prevention behaviors.
Purpose: To analyze the association between psychosocial factors and the incidence of anemia among pregnant women in the Sentosa Baru Community Health Center working area.
Method: A quantitative cross-sectional study was conducted among 64 pregnant women selected using total sampling. Data on psychosocial factors were collected using validated questionnaires, while hemoglobin levels were obtained from medical records or maternal health books. Data were analyzed using Chi-square tests and multiple logistic regression.
Results: Of the 64 respondents, 46 (71.9%) experienced anemia. Bivariate analysis demonstrated significant associations between husband's support (p=0.002), iron supplementation adherence (p=0.004), self-efficacy (p=0.001), knowledge (p=0.001), and anemia incidence. Multiple logistic regression identified husband's support (adjusted OR=8.273; 95% CI: 2.037–23.814; p<0.05), iron supplementation adherence (adjusted OR=5.938; 95% CI: 1.784–19.759; p<0.05), self-efficacy (adjusted OR=0.087; 95% CI: 0.020–0.389; p<0.05), and maternal knowledge (adjusted OR=8.273; 95% CI: 2.408–28.416; p<0.05) as significant factors associated with anemia.
Conclusion: Psychosocial factors are significantly associated with anemia among pregnant women. Strengthening family support, improving adherence to iron supplementation, enhancing self-efficacy, and increasing maternal knowledge should be integrated into anemia prevention programs during pregnancy.

Keywords: Anemia; Pregnancy; Psychosocial Factors.

INTRODUCTION

Anemia in pregnancy remains a significant public health issue due to its association with an increased risk of maternal, fetal, and birth outcomes. Generally, anemia is defined as low hemoglobin levels or red blood cell mass, and in pregnancy, the World Health Organization defines anemia as hemoglobin levels below 11 g/dL or 110 g/L (Smith, Teng, Branch, Chu, & Joseph, 2019). During pregnancy, iron requirements increase significantly to support maternal red blood cell expansion, placental development, and fetal growth. Consequently, pregnancy creates a significant negative iron balance, consuming approximately 500–800 mg of iron from maternal stores (Sangkhae, Fisher, Ganz, & Nemeth, 2023). When these needs are not met, iron deficiency becomes the most common cause of anemia in pregnancy and can increase the risk of adverse outcomes such as low birth weight, preterm birth, postpartum hemorrhage, and impaired fetal growth and development (Means, 2020).

The burden of anemia among pregnant women remains high globally, with recent estimates indicating that approximately 36–38% of pregnant women worldwide are anemic, resulting in more than one in

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three pregnant women aged 15–49 years facing hemoglobin deficiency (Karami, Chaleshgar, Salari, Akbari, & Mohammadi, 2022). This situation is most severe in low- and middle-income countries, particularly in Africa and South Asia, due to higher prevalence in LMICs, linked to poverty, low education, and development inequality. Studies also indicate that anemia in pregnancy is influenced not only by biological factors, but also by access to nutritious food, antenatal care, adherence to iron-folate supplementation, sanitation, and prevention of infections such as malaria and intestinal parasites (Dagne, Shiferaw, Gedfie, Jemal, Gashaw, Kumie, Bazezew, Sisay, Abebe, Nigatie, Misganaw, Asmare, Getachew, Gashaw, Ashagre, Tefera, Alemu, Tamrat, Kassanew, & Reta, 2025). Cross-country evidence confirms that increasing antenatal visits, nutrition education, micronutrient supplementation, improving sanitation, and strengthening socioeconomic conditions are crucial for reducing the burden of anemia among pregnant women (Engidaw, Lee, Fekadu, Mondal, & Ahmed, 2025; Sinaga, Dewi, Pinem, Purnamasari, Sagala, Yun, Ertilda, Pasaribu, & Gulo, 2024; Sinaga, Fauzianty, & Napitupulu, 2025).

A similar problem also occurs in Indonesia. The 2023 Indonesian Health Survey showed that the prevalence of anemia in pregnant women reached 27.7%, meaning nearly three in ten pregnant women in Indonesia are anemic. Although this figure is lower than previous data in Indonesia, anemia in pregnancy remains a public health problem with impacts on both the mother and the fetus (Khotimah, Eryando, Santoso, Laksono, & Basrowi, 2025). This situation also indicates that existing prevention efforts are not yet fully effective, as the distribution of iron tablets is high, but compliance with consumption remains low, with only 44.2–51.5% following recommendations. Non-compliance is more common among mothers with poor ANC, those living in rural areas, and those with low socioeconomic status (Noptriani & Simbolon, 2022).

Anemia during pregnancy can have short-term and long-term impacts on both the mother and the fetus. In the mother, anemia is associated with fatigue, weakness, and dizziness, reduced quality of life and ability to function, and in more severe cases, can increase the risk of infection, postpartum hemorrhage, preterm labor, transfusion, and even maternal death. In the fetus and infant, maternal anemia is consistently associated with an increased risk of preterm birth and low birth weight, and can also reduce the infant's iron stores and increase the risk of anemia after birth (Obeagu & Obeagu, 2025). Evidence also suggests possible long-term impacts on the child's growth and development and neurocognitive function, although causality remains uncertain for some outcomes (Benson, Shatzel, Ryan, Hedges, Martens, Aslan, & Lo, 2022). Therefore, prevention and early detection are essential early in pregnancy through hemoglobin testing at the initial visit and repeat testing at 28 weeks' gestation, accompanied by risk factor assessment and iron deficiency testing if necessary (Obeagu & Obeagu, 2025). Current evidence indicates that research and prevention programs for anemia during pregnancy have predominantly focused on biological and nutritional determinants, including iron deficiency, inadequate dietary diversity, increased iron requirements during pregnancy, infections, maternal nutritional status, and poor adherence to iron supplementation (Dagne et al., 2025). Although these interventions are essential, increasing iron intake alone has not been sufficient to eliminate anemia because adherence to supplementation is influenced by behavioral and psychosocial factors (Kumar, Arnipalli, Mehta, Carrau, & Ziouzenkova, 2022).

To date, research and programs to prevent anemia in pregnancy have focused more on biological and nutritional factors, such as iron deficiency, low dietary diversity, increased iron requirements during pregnancy, infections, short birth spacing, reproductive age, nutritional status, and non-compliance with iron-folate supplementation (Dagne et al., 2025). However, more recent evidence suggests that these factors do not fully explain why some pregnant women remain anemic despite receiving iron supplements and antenatal care, as anemia is also shaped by interacting behavioral, psychological, and structural factors (Kumar et al., 2022). Various studies have shown that perceptions of anemia, self-efficacy, social support, psychological well-being, stress, poverty, low education, food insecurity, and limited access to health services can influence preventive behaviors, supplementation compliance, and the risk of anemia during pregnancy (Campbell, Tsintsifas, Britt, Franklin, Miller, Keenan-Devlin, Borders, & Crockett, 2026). Emerging

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evidence suggests that psychosocial determinants including husband's support, self-efficacy, maternal knowledge, stress, and psychological well-being may substantially influence anemia prevention behaviours by affecting dietary practices, adherence to iron supplementation, antenatal care utilization, and health decision-making (Triharini, Has, & Nofita, 2023).

To date, research and programs to prevent anemia in pregnancy have focused primarily on biological and nutritional factors, such as iron deficiency, low dietary diversity, increased iron requirements during pregnancy, infections, short gestational intervals, maternal age, nutritional status, and non-compliance with iron supplementation (Dagne et al., 2025). However, evidence also suggests that this approach is insufficient, as increasing iron intake alone often fails to reduce anemia, and supplement compliance is influenced by education, perceived benefits, and behavioral barriers (Kumar et al., 2022). Several studies confirm that anemia in pregnant women is also shaped by psychological and social factors, including perceived vulnerability, self-efficacy, social support, psychosocial stress, low education, poverty, food insecurity, and limited access to health services (Triharini et al., 2023). Nevertheless, findings regarding psychosocial determinants remain inconsistent. Some studies have reported significant associations between psychosocial factors and maternal anemia, whereas others found that certain constructs, such as self-efficacy or perceived barriers, were not independently associated with anemia prevention behaviours (Triharini et al., 2023). Moreover, most previous studies investigated individual psychosocial variables separately rather than examining multiple psychosocial dimensions simultaneously, particularly among pregnant women attending primary healthcare facilities in Indonesia.

Psychosocial factors in pregnant women include stress, anxiety, depressive symptoms, socio-family support, economic conditions, and the mother's belief and ability to implement anemia-preventing behaviors. Evidence suggests that prenatal stress, life stress, and emotional problems are associated with increased anemia in late pregnancy, while depression and anxiety also appear to be bidirectionally associated with anemia during the antenatal and postpartum periods (Campbell et al., 2026). These psychological conditions can influence maternal health behaviors, as depressive symptoms are associated with poor maternal self-care, while anxiety or depression in the first and second trimesters is thought to affect dietary intake and adherence to iron supplementation (Pobee, Campbell, Balakumar, Huang, Bernabé, & Koenig, 2025). Low support from husbands, family, and the social environment can also limit a mother's access to nutritious food, health information, and antenatal visits, especially when accompanied by low income, low education, or limited access to services (Triharini et al., 2023). Therefore, this study addresses this gap by simultaneously examining husband's support, adherence to iron supplementation, self-efficacy, and maternal knowledge as psychosocial determinants of anemia using multivariable logistic regression. Evaluating these psychosocial dimensions together provides a more comprehensive understanding of behavioral and social influences on anemia beyond conventional biological and nutritional risk factors.

Several studies have shown that psychosocial conditions are indeed associated with anemia in pregnancy, but the pattern is not entirely consistent across populations and contexts (Dagne et al., 2025). Some studies report that prenatal stress, exposure to life stressors, depression, and low psychological well-being are associated with a higher risk of anemia; for example, perceived stress and accumulated life stressors are associated with third-trimester anemia, while low psychological well-being in pregnant women in rural Indonesia is strongly associated with anemia (Campbell et al., 2026). Another cohort study also showed that first-trimester depression and second-trimester anxiety are associated with an increased risk of mothers developing anemia in the third trimester (Kwak, Kim, Lee, Park, Han, Kim, Chung, Lim, & Ryu, 2025). On the other hand, social support appears protective in some studies because it is associated with better anemia prevention behaviors and may mediate the relationship between hemoglobin and depression. However, not all psychosocial dimensions show significant associations. For example, in another study, self-efficacy, perceived benefits, and perceived barriers were not always associated with anemia prevention behaviors (Triharini et al., 2023).

The high prevalence of anemia and the inconsistency of research findings on psychosocial factors indicate the need for a more comprehensive

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approach. Hemoglobin level testing should be complemented by an assessment of the mother's psychological condition, social support, relationship with her partner, and any barriers to anemia-preventive behaviors. This information can help health workers develop interventions that focus not only on supplementation but also on counseling, family support, and strengthening antenatal care. Therefore, this study aimed to examine the association between psychosocial factors including husband's support, adherence to iron supplementation, self-efficacy, and maternal knowledge and the incidence of anemia among pregnant women in the Sentosa Baru Community Health Center. The findings are expected to provide evidence for integrating psychosocial interventions into maternal anemia prevention programs.

RESEARCH METHOD

This study employed a quantitative observational analytical design using a cross-sectional approach to examine the association between psychosocial factors and the incidence of anemia among pregnant women. The study was conducted in the working area of the Sentosa Baru Community Health Center, Medan Perjuangan District, Medan City, Indonesia, from January to March 2026. The study population comprised all pregnant women who attended antenatal care (ANC) services at the Sentosa Baru Community Health Center during the study period. A total sampling technique was applied, resulting in 64 pregnant women being included as study participants. Pregnant women were eligible if they (1) attended ANC at the study site, (2) had documented hemoglobin (Hb) examination results in their medical records or Maternal and Child Health (KIA) book, (3) had received iron supplementation from the health center, (4) were able to communicate effectively, and (5) provided written informed consent. Pregnant women with severe pregnancy complications, diagnosed hematological disorders unrelated to iron deficiency, or incomplete Hb records were excluded from the study.

The dependent variable was the incidence of anemia. Anemia was determined based on hemoglobin (Hb) examination results obtained from medical records or the Maternal and Child Health (KIA) book. Anemia was defined according to the World Health Organization (WHO) criteria as hemoglobin levels <11.0 g/dL during pregnancy. The independent variables included husband's support, adherence to iron supplementation, self-efficacy, and maternal knowledge regarding anemia prevention. Primary data were collected using a structured questionnaire adapted from previously published instruments assessing psychosocial determinants of maternal health and anemia prevention. The questionnaire consisted of four domains: husband's support, adherence to iron supplementation, self-efficacy, and maternal knowledge. Prior to data collection, the instrument underwent content validation by experts in maternal and child health and pilot testing among pregnant women with characteristics similar to the study population.

Instrument validity was evaluated using item-total correlation analysis, with all questionnaire items demonstrating corrected item-total correlation coefficients greater than the minimum acceptable value of 0.30. Instrument reliability was assessed using Cronbach's alpha coefficient, which demonstrated satisfactory internal consistency for each questionnaire domain. Operationally, husband's support was categorized as supportive or non-supportive according to the predetermined questionnaire scoring criteria. Adherence to iron supplementation was classified as adherent or non-adherent based on respondents' reported consumption of iron tablets according to national recommendations during pregnancy. Self-efficacy was categorized into high and moderate levels according to the total questionnaire score, while maternal knowledge was classified as good or poor based on established score cut-off values. The outcome variable was categorized as anemia or non-anemia according to Hb examination results.

Data were analyzed using IBM SPSS Statistics version 27. Descriptive (univariate) analysis was performed to summarize respondents' characteristics and study variables using frequencies and percentages. Bivariate associations between psychosocial factors and anemia were analyzed using the Chi-square test. Variables demonstrating statistical significance and/or meeting the predetermined selection criterion were subsequently entered into a multiple logistic regression model to identify independent psychosocial factors associated with anemia. Before conducting logistic regression, multicollinearity among independent variables was

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assessed using tolerance values and the Variance Inflation Factor (VIF), confirming the absence of significant multicollinearity. Model fitness was evaluated using the Hosmer-Lemeshow goodness-of-fit test. Adjusted Odds Ratios (AORs), 95% Confidence Intervals (95% CIs), and p-values were reported. Statistical significance was established at $p < 0.05$.

Ethical approval for this study was obtained from the Health Research Ethics Committee of STIKes Mitra Husada Medan (Ethical Approval No. 3660/KEP-MHM/III/2026).

RESEARCH RESULTS

Table 1. Characteristics of Respondent (N=64)

Variables	Results	p-value
Age (Mean±SD)(Range)(Year)	(28.47±5.971)(20-45)	
Age (n/%)		
20–35 Years	50/78.1	
> 35 Years	14/21.9	
Education (n/%)		
Primary–Junior High School	2/3.1	
High School or Equivalent	57/89.1	
College	5/7.8	
Occupation (n/%)		
Employed	28/43.7	
Unemployed	36/56.3	
Gestational Age (n/%)		
0–13 Weeks	21/32.8	
14–28 Weeks	30/46.9	
29–40 Weeks	13/20.3	
Husband's Support (n/%)		
Supportive	20/31.3	0.002
Unsupportive	44/68.8	
Iron Supplementation Adherence (n/%)		
Adherent	18/28.1	0.004
Non-adherent	46/71.9	
Self Efficacy (n/%)		
High	53/82.8	0.001
Moderate	11/17.2	
Knowledge (n/%)		
Good	24/37.5	0.001
Poor	40/62.5	
Anemia Incidence (n/%)		
Non-anemic	18/28.1	
Anemic	46/71.9	

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A total of 64 pregnant women participated in this study. The mean age of the respondents was 28.47 ± 5.97 years, with an age range of 20–45 years. Most respondents were aged 20–35 years (78.1%), had completed high school or equivalent education (89.1%), were unemployed (56.3%), and were in the second trimester of pregnancy (46.9%).

Regarding the independent variables, 68.8% of respondents reported receiving inadequate husband's support, 71.9% were non-adherent to iron supplementation, 82.8% had high self-efficacy, and 62.5% had poor knowledge regarding anemia. The prevalence of anemia among the respondents was 71.9%, while 28.1% were not anemic.

Psychosocial factors have a significant relationship with the incidence of anemia. Pregnant women who do not receive support from their husbands are more likely to experience anemia with a Chi-Square test result of p-value = 0.002. In addition, pregnant women who do not comply with consuming iron tablets are more likely to experience anemia with p-value = 0.004. The self-efficacy factor also shows a significant relationship with the incidence of anemia (p-value = 0.001), and the level of knowledge of pregnant women is related to the incidence of anemia (p-value = 0.001). These results indicate that husband support, compliance with iron tablet consumption, self-efficacy, and knowledge are factors related to the incidence of anemia in pregnant women.

Table 2. Multivariate Analysis

Variables	OR	95% CI
Husband's Support	8.273	2.037–23.814
Iron Supplement Compliance	5.938	1.784–19.759
Self-Efficacy	0.087	0.020–0.389
Knowledge	8.273	2.408–28.416

All psychosocial variables showed a significant relationship with the incidence of anemia in pregnant women. Husband's support had a significant relationship with an OR value of 8.273 (95% CI: 2.037–23.814), indicating that pregnant women with husband's support have a greater chance of avoiding anemia. Compliance with iron supplement consumption was also significantly associated with the incidence of anemia with an OR = 5.938 (95% CI: 1.784–19.759). Self-efficacy was a protective factor against anemia with an OR = 0.087 (95% CI: 0.020–0.389), indicating that high self-efficacy can reduce the risk of anemia by 91.3%. In addition, maternal knowledge had a significant relationship with an OR = 8.273 (95% CI: 2.408–28.416), so mothers with good knowledge about anemia tend to have better abilities in preventing anemia during pregnancy.

DISCUSSION

The results of this study indicate that the incidence of anemia in pregnant women in the Sentosa Baru Community Health Center area is related to various psychosocial factors, namely husband's support, adherence to iron supplement consumption (TTD), self-efficacy, and maternal knowledge. Psychosocial factors appear to play a significant role in anemia in pregnancy because they influence how mothers receive health information, interpret the risk of anemia, and carry out daily preventive behaviors (Dagne et al., 2025). Anemia in pregnant women is not only related to iron deficiency and increased iron needs, but also to behavioral factors, education, poverty, food insecurity, and access to health services that shape the mother's ability to maintain her nutritional status during pregnancy (Lolascon, Andolfo, Russo, Sanchez, Busti, Swinkels, Aguilar Martinez, Bou-Fakhredin, Muckenthaler, Unal, Porto, Ganz, Kattamis, De Franceschi, Cappellini, Munro, & Taher, 2024). Evidence also suggests that social support, self-efficacy, and belief in the benefits of prevention are associated with better anemia prevention behaviors, while psychosocial stress and environmental pressures can exacerbate the risk of anemia through barriers to healthy behaviors and impaired iron metabolism (Khuanloy, Songthap, & Mekrungrongwong, 2025; Liana, Yudhya, Maratis, Dwijayanti, & Fauziah, 2026).

Based on the analysis results, there is a significant relationship between husband's support and the incidence of anemia in pregnant women with a p-value of 0.002. Pregnant women who receive

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husband's support tend to have a lower risk of developing anemia compared to those who do not receive husband's support. Husband's support for pregnant women can take the form of emotional, informational, and instrumental support, such as providing attention, seeking information about anemia and pregnancy, helping to meet nutritional needs, reminding them to take iron tablets, and accompanying them during antenatal visits (Darmawati, Siregar, Kamil, Husna, & Tahlil, 2022). This support appears to increase maternal motivation and health behavior, because pregnant women who feel supported tend to be more enthusiastic about maintaining their pregnancy, take iron tablets more regularly, and are more compliant in having pregnancy check-ups (Arifah, Ramadhani, Kusumawati, & Setiawan, 2024). Furthermore, implementing a family-centered empowerment model significantly improved self-efficacy and adherence to iron supplementation among pregnant women (Fauzianty, Situmorang, Sari, Sabiah, Hasibuan, & Febriyan, 2025).

The study also showed a significant association between adherence to iron supplementation and the incidence of anemia in pregnant women, with a p-value of 0.004. Pregnant women who did not adhere to iron supplementation were more likely to experience anemia than those who did. Iron supplementation plays a crucial role during pregnancy because iron requirements increase due to increased blood volume, red blood cell formation, and fetal and placental growth. Therefore, these requirements often cannot be met through diet alone. The Indonesian Ministry of Health recommends that pregnant women consume at least 90 iron supplements during pregnancy, generally equivalent to 60 mg of iron per day, to prevent anemia (Hasanah, Syafira, Lusida, Fuadiyah, & Fauziah, 2021). Regular iron supplementation is associated with increased or maintained hemoglobin levels and a reduced risk of anemia, supported by a meta-analysis showing an average increase in hemoglobin of 1.87 g/dL, a cohort study in West Java that found consumption of more than 180 iron tablets was associated with a lower risk of anemia in pregnancy, and a randomized trial in women without anemia that showed daily iron supplementation reduced iron deficiency anemia at term (Nurfitra & Simbolon, 2025). Regular iron supplementation is associated with increased or maintained hemoglobin levels and a reduced risk of anemia(Bakara, Sinaga, Manurung, Surbakti, & Sinaga, 2025).

The relationship between iron supplement compliance and anemia incidence indicates that maternal health behavior is a critical factor in the success of anemia prevention (Adethia, Manurung, Pitaloka, Sinaga, & Siahaan, 2022) . Low compliance can be caused by various factors such as forgetting to take the tablets, perceived side effects, a lack of understanding of the benefits of iron supplements, and a lack of support from the surrounding community. Iron supplement provision needs to be accompanied by ongoing education and monitoring through antenatal care services, as the availability of iron supplements alone does not guarantee program success without counseling, consumption supervision, and support from health workers (Sari, Kurniawan, Sutarto, Zuraida, & Suwandi, 2025). Meta-analytic evidence shows that nutrition education during pregnancy increases iron-folate tablet compliance by approximately 2.8 times, increases hemoglobin levels, and reduces the risk of anemia, making education an important component that needs to be integrated into ANC (Engidaw et al., 2025). Futhermore, based on scoping review shows that one of the obstacle in handling anemia in pregnant women is sociocultural factors and inadequare iron supplementation support (Fauzianty & Sulistyaningsih, 2022).

Regarding self-efficacy, the study results showed a significant relationship between self-efficacy and the incidence of anemia in pregnant women, with a p-value of 0.001. Self-efficacy reflects a mother's belief in her ability to perform health actions. Pregnant women with high self-efficacy tend to be better able to overcome obstacles in anemia-preventive behaviors, as confidence in one's own abilities is related to initiation, effort, and persistence in carrying out health behaviors according to Bandura's theory. In the context of pregnancy, higher self-efficacy is associated with adherence to iron tablet consumption, as seen in Garut with a moderate correlation between self-efficacy and iron tablet consumption (r=0.381) and in Ethiopia, where mothers with high self-efficacy were 2.91 times more likely to adhere to IFA consumption (Mekonnen, Alemnew, W., Abebe, & Demissie, 2021).

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The results of this study also showed that maternal knowledge had a significant relationship with the incidence of anemia with a p-value of 0.001. Knowledge about anemia, its causes, impacts, and prevention methods can influence a mother's ability to make health-related decisions during pregnancy (Ginting, Ramadayati, Sembiring, Br Sembiring, Simbolon, & Sinaga, 2025). Pregnant women with good knowledge tend to better understand the importance of consuming iron tablets, fulfilling nutritional needs, and regular prenatal check-ups, as knowledge about anemia has been shown to be associated with adherence to prevention strategies, consumption of iron supplements, and the formation of more positive preventive attitudes. Conversely, limited knowledge can make mothers less aware of the benefits of iron tablets, complications of anemia, and the importance of preventive behavior, resulting in less than optimal prevention efforts (Sembiring & Yun, 2025; Ginting et al, 2025; Harahap, Sinaga, Hamidah, Cibro, Umaira, Nazira, & Nurazizah, 2026).

Multivariate analysis results indicate that husband's support and knowledge have a strong influence on the incidence of anemia in pregnant women. This suggests that both external and internal maternal factors play a role in anemia prevention. Social support from a husband tends to strengthen pregnant women's motivation to adopt anemia-preventive behaviors, as husband involvement is associated with adherence to iron tablet consumption, reminders to eat nutritious food, and a lower incidence of anemia (Sari et al., 2025). Good knowledge helps mothers understand the importance of consuming iron supplements, fulfilling nutritional needs, and attending antenatal visits, although several studies also show that knowledge alone is not always sufficient without adequate counseling and support (Tengiz, 2025). Furthermore, self-efficacy plays a protective factor because a mother's belief in her own abilities is associated with her ability to maintain healthy behaviors such as taking supplements regularly, maintaining a healthy diet, and attending prenatal checkups. This relationship is evident in studies that found self-efficacy influences anemia prevention ability and is a predictor of preventive behavior, although not all studies have shown consistent results (Irawati, Madinah, Wayanti, & Esyuananik, 2024).

CONCLUSION

Psychosocial factors, including husband's support, adherence to iron supplementation, self-efficacy, and maternal knowledge, were significantly associated with the incidence of anemia among pregnant women in the Sentosa Baru Community Health Center working area. These findings suggest that psychosocial factors should be considered alongside biological and nutritional determinants in maternal anemia prevention programs. Strengthening family support, improving adherence to iron supplementation, enhancing maternal self-efficacy, and increasing knowledge through health education may contribute to more comprehensive anemia prevention strategies. Because this study employed a cross-sectional design, the findings indicate associations rather than causal relationships. Therefore, future longitudinal or prospective cohort studies are recommended to clarify the temporal relationship between psychosocial factors and anemia during pregnancy and to explore additional factors, such as psychosocial stress, anxiety, dietary intake, socioeconomic status, and access to health services.

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