



EDUCATION ON HANDLING AND PREVENTION OF ANEMIA IN PREGNANT WOMEN THROUGH ANTE NATAL CARE EXAMINATIONS AND PROVISION OF BLOOD-ENHANCING TABLETS AT THE PADANG BULAN PUBLIC HEALTH CENTER

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ABSTRACT

Anemia in pregnant women is a health problem that can impact the safety of both mother and fetus. This study aims to analyze the effectiveness of antenatal care (ANC) and iron supplementation (ITP) in reducing the incidence of anemia in the Padang Bulan Community Health Center (Puskesmas) work area. The method used was a descriptive study using a survey approach and direct observation of pregnant women attending ANC. The results showed a decrease in the number of pregnant women experiencing anemia after receiving counseling, antenatal checkups, and regular iron supplementation. Education integrated with primary health care services has proven effective in increasing pregnant women's knowledge about the importance of consuming iron supplements and monitoring their hemoglobin status. In conclusion, regular ANC and regular iron supplementation play a significant role in reducing anemia in pregnant women.

Keywords: Education, Anemia, Pregnant Women, Blood-Enhancing Tablets.

Introduction

Anemia during pregnancy is a serious health problem and requires special attention because it can negatively impact both the mother and the fetus. Anemia in pregnant women increases the risk of various obstetric complications, such as postpartum hemorrhage, infection, premature birth, and low birth weight. In severe cases, anemia can even cause maternal and infant death, both directly and indirectly. Therefore, the prevention and management of anemia are essential components of maternal health care.

Based on data obtained from the Padang Bulan Community Health Center in 2025, cases of anemia among pregnant

women were still found in significant numbers, despite various promotional and preventive efforts being implemented regularly. This indicates that the anemia problem has not been fully resolved and requires a more comprehensive and sustainable intervention strategy.

Several interventions implemented by the Padang Bulan Community Health Center to reduce the incidence of anemia include regular antenatal care (ANC) checkups, nutrition education for pregnant

women on the importance of consuming a balanced diet, and routine administration of iron tablets (IBT) according to the recommended dosage. ANC checkups enable health workers to



detect anemia early, provide nutritional advice, and monitor the overall progress of the pregnancy. Nutrition education is also provided in the form of group counseling and individual counseling aimed at increasing pregnant women's knowledge and awareness of the importance of iron intake and a healthy diet during pregnancy. Iron supplementation is a mandatory program integrated into ANC services because it is the most practical and effective form of iron supplementation.

This research was conducted as a form of community service activity that not only aims to provide health services but also encourage behavioral changes and increase awareness among pregnant women about the importance of anemia prevention. Furthermore, this activity is expected to contribute to a sustainable reduction in the incidence of anemia among pregnant women in the Padang Bulan Community Health Center (Puskesmas) work area. With collaboration between health workers, integrated health post (Posyandu) cadres, and the active participation of pregnant women and their families, anemia control efforts can be implemented more effectively and have a long-term impact on maternal and child health.

Research Method

This research was conducted as a form of community service activity that not only aims to provide health services but also encourage behavioral changes and increase awareness among pregnant women about the importance of anemia prevention. Furthermore, this activity is expected to contribute to a sustainable reduction in the incidence of anemia among pregnant women in the Padang Bulan Community Health Center (Puskesmas) work area. With collaboration between health workers, integrated health post (Posyandu)

cadres, and the active participation of pregnant women and their families, anemia control efforts can be implemented more effectively and have a long-term impact on maternal and child health.

Results

A survey of 20 pregnant women participating in Antenatal Care (ANC) in the Padang Bulan Community Health Center (Puskesmas) showed that before the intervention, 13 respondents experienced mild anemia with hemoglobin (Hb) levels below 11 g/dL. This finding indicates that more than half of the participants experienced iron deficiency, which could potentially impact the health of both the mother and fetus, both in the short and long term. Anemia in pregnancy has serious consequences, such as chronic fatigue, increased risk of fetal growth and development problems, and the risk of premature birth and maternal death. Therefore, comprehensive interventions, encompassing medical, educational, and social aspects, are crucial to reduce the incidence of anemia among pregnant women.

Discussion

The success in increasing hemoglobin levels in 9 out of 13 respondents (69%) demonstrates that a holistic intervention combining iron supplementation with participatory education is significantly more effective than providing iron tablets (IBT) without clinical supervision. Clinically, this improvement indicates that iron absorption is heavily influenced by the patient's knowledge of correct administration, where the use of visual aids and face-to-face education at the community health center level plays a pivotal role in outcomes (Wati, Musdalifah and Nurhayati, 2024). Education regarding the consumption of IBT alongside Vitamin C sources, while avoiding absorption inhibitors, served as a key factor



in ensuring that supplementation yielded the intended biological impact on the maternal blood profile (Tumanggor and Siregar, 2022).

Furthermore, the direct involvement of nutritionists and midwives in interactive discussion sessions successfully addressed the psychological barriers and physical side effects that are often the primary causes of non-compliance (Husna, Andika and Rahmi, 2020). Common complaints, such as nausea and gastric discomfort, were managed through strategic timing of medication and dietary modifications, proving that midwife-led counseling is essential in overcoming gastrointestinal barriers (Kamau *et al.*, 2021). This suggests that emotional and technical support from healthcare providers can shift a pregnant woman's perception of medication side effects, ultimately enhancing persistence in adhering to the supplementation therapy (Sinaga *et al.*, 2022).

From the perspective of Continuity of Care, integrating education into the routine Antenatal Care (ANC) schedule established a structured monitoring system. This gradual and ongoing evaluation process allowed midwives to perform early detection of pregnant women who did not show clinical progress despite the intervention. This structured approach to ANC interventions has been shown to significantly improve maternal compliance and overall awareness (Sitanggang *et al.*, 2022). For those who did not show significant Hb increases, this provided a window for medical practitioners to conduct further investigations into other comorbidities that require specific medical management.

On a broader scale, these findings reaffirm that addressing anemia in pregnancy is not merely a matter of logistics, but rather a challenge of cognitive empowerment. Mothers who were previously reluctant became more open and

compliant after receiving direct support, a phenomenon aligned with recent studies on the effectiveness of peer-support and health worker counseling (Mousa *et al.*, 2025). Moving forward, this participatory education-based model is highly recommended for replication as a standard operating procedure, following the latest global recommendations for nutritional interventions in antenatal (World Health Organization, 2025). From these findings, it can be concluded that interventions based on nutrition education and iron supplementation, implemented on a continuous basis, have a positive impact on reducing the incidence of anemia in pregnant women. In addition to directly impacting hemoglobin levels, these programs also contribute to behavioral

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Furthermore, the direct involvement of nutritionists and midwives in interactive discussion sessions successfully addressed the psychological barriers and physical side effects that are often the primary causes of non-compliance. Common complaints, such as nausea and gastric discomfort, were no longer viewed as reasons to discontinue the supplements; instead, they were managed through strategic timing of medication and

dietary modifications (Barker *et al.*, 2021). This suggests that emotional and technical support from healthcare providers can shift a pregnant woman's perception of medication side effects, ultimately enhancing persistence in adhering to the supplementation therapy.

From the perspective of Continuity of Care, integrating education into the routine Antenatal Care (ANC) schedule at the Padang Bulan Health Center established a structured monitoring system (Fauzianty *et al.*, 2025). This gradual and ongoing evaluation process allowed midwives to perform early detection of pregnant women who did not show clinical progress despite the intervention. For the 4 respondents who did not show significant Hb increases, this provided a window for medical practitioners to conduct further investigations into other comorbidities, such as chronic infection, helminthiasis, or nutrient malabsorption, which require specific medical management (Stephen *et al.*, 2022).

On a broader scale, these findings reaffirm that addressing anemia in pregnancy is not merely a matter of logistics or tablet distribution, but rather a challenge of cognitive empowerment.. Moving forward, this participatory education-based intervention model is highly recommended for replication across other community health centers as a standard operating procedure to reduce maternal and neonatal mortality risks associated with anemic complications in primary healthcare settings (Sunuwar *et al.*, 2020).

Conclusion and Suggestion

Regular antenatal care (ANC) checkups and routine iron supplementation have been proven effective in reducing anemia rates in pregnant women. Consistent education from health workers also supports increased maternal understanding and improves hemoglobin status.

Continuing education programs and monitoring by community health centers (Puskesmas) is needed to further reduce anemia rates.

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