



## PROVIDING COUNSELING ON CHICKEN LIVER AND MEAT AND MORINGA DIM SUM (DIHATIMO) TO PREVENT ANEMIA IN PREGNANT WOMEN

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### Abstract

The prevalence of anemia among pregnant women in Garut is alarmingly high, reaching 6669 individuals. A survey carried out at the TPMB Hj. Husnul Khotimah area revealed that 3 out of 7 pregnant women suffer from anemia. This escalating prevalence underscores the necessity of identifying the causative factors associated with anemia. Anemia during pregnancy poses significant risks to both the mother and the fetus. Despite numerous governmental initiatives to prevent anaemia, its prevalence remains stubbornly high. Additional strategies and channels are imperative to curb this trend. This community service initiative aimed to enhance pregnant women's understanding of anaemia, encompassing its aetiology, consequences, and preventive measures. Twenty-five anaemic pregnant women participated in the activity, encompassing data collection, educational interventions, and comprehensive evaluation of field activities. Evaluation methods included interactive discussions and question-and-answer sessions. The execution of this community service activity proceeded according to plan, with positive outcomes. Following counselling on anemia, 88% of participants were able to explain the concept of anemia during pregnancy, 72% were able to explain its aetiology and consequences, 76% were able to identify associated risk factors, 76% were able to recognize signs and symptoms, and 84% were able to explain methods for treatment and prevention. We advocate for pregnant women to prevent anaemia by incorporating iron-rich foods into their diets and adopting the DIHATIMO innovation to increase haemoglobin levels.

**Keywords:** *Anemia, DIHATIMO, pregnant women*

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### INTRODUCTION

A healthy pregnancy is characterized by the well-being of the mother and the fetus, with no complaints interfering with the mother's activities or growth. Two critical assessments determine a healthy pregnancy: the mother's condition and the fetus's development. Anemia is relatively common during pregnancy due to hemodilution, where the blood volume increases by 30% to 40%, peaking in the third trimester. Blood cell count rises by 18% to 30%, and haemoglobin levels increase by approximately 19%. Anaemia in pregnant women is a significant health problem that can threaten the condition of both the mother and fetus, with a high prevalence rate (Princess, 2020). Anaemia is a decrease in haemoglobin levels below 11 g/dL in pregnant women (Milah & Ana, 2019).

The primary cause of anaemia in pregnant women is iron deficiency, which may result from a lack of iron-rich foods, consuming foods with low iron content, or eating foods containing substances that inhibit iron absorption (Milah & Ana, 2019). Anaemia's effects on pregnant women can be short-term or long-term. Short-term effects include an increased risk of infectious shock during labour and postpartum, heart failure, and postpartum haemorrhage. Long-term effects of postpartum haemorrhage

can be fatal. Additionally, anemia affects newborns, increasing the risk of low birth weight (LBW) and small for gestational age (SGA) infants, premature births, neonatal deaths, decreased mental and motor development, lower APGAR scores, and impaired motor skills (Hidayanti & Rahfiludin, 2020).

The anaemia prevention program for pregnant women implemented by the Indonesian government includes administering 90 Fe (iron) supplement tablets during pregnancy. However, many pregnant women do not follow this recommendation for various reasons, resulting in a high prevalence of anaemia (Indrayani et al., 2023). Besides providing iron tablets, other efforts to prevent anemia in pregnancy, as suggested by Erryca et al. (2022), include enhancing understanding and fostering positive attitudes through education about anemia, seeking medical advice for unusual complaints, enhancing understanding and behaviour of pregnant women and their families in selecting, preparing, and serving food, and improving the quality of health and nutrition services (Erryca et al., 2022).

This community service initiative aimed to detect and intervene early in pregnant women to prevent and treat anemia. This community service initiative at TPMB Hj. Husnul Khotimah hopes to help pregnant women who experience anemia understand the importance of increasing haemoglobin levels during pregnancy and learn how to treat anemia, including using the DIHATIMO innovation.

## **METHOD**

The location of this community service initiative was at TPMB Hj. Husnul Khotimah in Garut. This activity was carried out over two weeks. The tools used included educational materials like PowerPoint presentations and cell phones. The approach encompassed collecting data, determining problem priorities, checking haemoglobin (HB) levels in 25 pregnant women, preparing educational materials, and then providing direct counselling to groups of pregnant women experiencing anaemia at TPMB Hj. Husnul Khotimah. Evaluation was carried out through interactive discussions and question-and-answer sessions. Based on the results of the community service initiative, 25 pregnant women with anemia participated. This activity was carried out collaboratively with the team. The participants were active during the session, engaging in the question-and-answer sessions.

## **RESULTS AND DISCUSSION**

### **1. Planning Stage**

The planning stage began with submitting a proposal and creating an activity permit. Before the activity commenced, the community service implementation team initially visited the activity location at TPMB Hj. Husnul Khotimah. During this visit, the team identified pregnant women in the area to determine the number of participants. Next, the team prepared the venue and facilities for the activities, compiled educational materials and aids, distributed event invitations to pregnant women, and developed a plan for implementing the activities.

## 2. Implementation Stage

Implementing this community service initiative began with preparing educational materials in PowerPoint presentations. Early detection was then done by checking pregnant women's haemoglobin (HB) levels. The next step involved an intervention that included counselling and providing food innovation designed to address anaemia in pregnant women. A vital part of this intervention was the introduction of "Chicken Liver and Meat and Moringa Dimsum" (abbreviated as "Dihatimo"), a creative food idea combining chicken liver and meat and Moringa leaves.

## 3. Evaluation Stage

After the implementation stage, an evaluation was carried out to assess the impact of the community service initiative. This evaluation involved interactive discussions and question-and-answer sessions. Based on the counselling results, 25 participants completed the activity. The evaluation included interviewing pregnant women to determine the intervention's effectiveness before and after implementation. The community service activity proceeded smoothly according to plan. Of the 25 pregnant women who participated, 22 (88%) were able to explain the concept of anemia during pregnancy after the counselling session, 18 (72%) were able to explain its aetiology and consequences, 19 (76%) were able to identify associated risk factors, 19 (76%) were able to identify signs and symptoms, and 21 (84%) were able to explain methods for treatment and prevention of anemia in pregnant women. Additionally, pregnant women expressed willingness to consume iron through nutritious and balanced foods as recommended, including Chicken Liver and Meat and Moringa Leaves Dimsum.

Education about preventing anaemia is crucial to enhance understanding and foster positive attitudes, ultimately enabling pregnant women to take various steps to prevent anaemia (Adila Mirwanti, 2021). According to Sulistyawati's theory (2019), numerous efforts have been made to control anemia. However, a significant reduction has not been achieved due to the lack of understanding (knowledge) among pregnant women about anemia. Therefore, it is hoped that health education about anaemia during pregnancy will highlight the importance of maternal and fetal health. Efforts to enhance health education should include motivating the community to collaborate in developing and implementing health services and education programs and counselling pregnant women on maintaining their health during pregnancy. Additionally, these efforts aim to increase mothers' awareness of the potentially high risks or complications of pregnancy and childbirth and how to recognize these complications early (Kusumaningtyas et al., 2023).

One of the critical recommendations during counselling is the consumption of "Dihatimo," a food innovation aimed at preventing anaemia in pregnant women. Each component of Dihatimo offers specific benefits:

1. Benefits of Chicken Liver

- a. Rich in Heme Iron: Chicken liver is abundant in heme iron, which is highly effective for the formation of haemoglobin,
- b. High in Vitamin B12, Folate, and Protein: These nutrients are crucial for the health of pregnant women and the growth (development) of the fetus.

2. Benefits of Chicken Meat

- c. Folic Acid Content: The folic acid in chicken helps produce and maintain red blood cells.
- d. Iron Content: The iron in chicken meat helps combat anemia or blood deficiency.

3. Benefits of Moringa Leaves

- e. High Nutritional Content: Moringa leaves are rich in essential vitamins and minerals such as vitamins A, C, E, calcium, potassium, and protein.
- f. Non-heme Iron: Although less effective than heme iron, the iron in moringa leaves can still help increase haemoglobin levels.
- g. Antioxidant and Anti-Inflammatory Properties: The antioxidants in moringa leaves can help reduce inflammation and improve overall health.

Midwives are vital health workers who are expected to provide intensive education about anaemia to every pregnant woman. This education can be delivered using informational media such as leaflets or pamphlets to help prevent anemia in pregnant women. By receiving this education, pregnant women can undergo a healthy pregnancy process, ensuring optimal fetus growth.



Figure 1. Before Counseling Activities



Figure 2. Providing Education and Intervention to Pregnant Women



Figure 3. Photos of Demonstration of DIHATIMO Making



Figure 4. Giving Door Prize



Figure 5. Photo of Pretest-Posttest Administration



Figure 6. Post-Activity

## CONCLUSION

Based on the community service initiative results, the counselling efforts regarding anemia and the treatment and prevention of anemia through the DIHATIMO innovation have been successful. There has been a notable increase in knowledge among pregnant women. We advocate for pregnant women to prevent anemia by incorporating iron-rich foods into their diets and adopting the DIHATIMO innovation to increase hemoglobin levels.

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