

# **Dragon Fruit, Guava, and Honey Juice (Take Care of Your Mother)**

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## **Abstract**

World Health Organization (WHO), 40% of pregnant women worldwide suffer from anemia. Anemia in pregnancy is a condition where pregnant women have Hb levels <11.00 gr% in the first, second, and third trimesters or Hb levels <10.50 gr% in the second trimester, because there is a difference in hemodilution, especially in the second trimester. Anemia that occurs during pregnancy can be caused because many women start their pregnancy with insufficient food reserves or experience anemia before pregnancy. The most common anemia in pregnancy is iron deficiency anemia, which is caused by a lack of nutrition from food. Natural ingredients that can be used as an alternative to treat anemia and are easy to obtain and cultivate also contain protein, vitamin C, and iron. One non-pharmacological method or natural ingredient that can be used to increase Hb levels is dragon fruit juice, red guava, and honey. The study's conclusion (Meilinda V et al., 2023) is that dragon fruit juice (*Hylocereus Polyrhizus*) and honey affect increasing Hb levels in pregnant women with anemia. This community service was carried out to overcome priority problems found in the Tanah Tinggi Sub-Health Center, Central Jakarta, namely Anemia in Pregnant Women.

The method used in this community service is using lectures, discussions, and demonstrations. Targeting pregnant women with anemia

The results of this community service, help pregnant women understand and understand the counseling and complementary therapy "Take Care of Your Mother" which can be applied to overcome Anemia.

Based on the evaluation carried out after the provision of counseling and the provision "Take Care of Your Mother" therapy during community service, the intervention went well and effectively with the results that pregnant women were able to answer questions and know how to prevent and manage anemia.

**Keywords: Dragon Fruit, Guava, Honey Juice, Pregnant Women, Anemia**

## **Introduction**

Anemia in pregnancy is a problem that requires special treatment because its prevalence is still high. Various countries including Indonesia report that the prevalence of anemia in pregnant women is still high. The World Health Organization (WHO) reports that the prevalence of pregnant women with anemia is around 35-75% and increases with increasing gestational age<sup>12</sup>. The Indonesian Ministry of Health (2020) reported that according to the Riskesdas report in 2018, 48.9% of pregnant women in Indonesia experienced anemia and this percentage has increased compared to the 2013 Riskesdas data, which was 37.1%. The incidence of anemia in Bali Province in 2019 was 5.07% increasing to 5.78% in 2020 (Bali Health Office, 2020). Based on data from the World Health Organization (WHO), anemia in pregnant women is categorized as a health problem with a prevalence of 29.6%. The prevalence of anemia in pregnant women in Indonesia in 2019 was still classified as 48.9% (Ministry of Health of the Republic of Indonesia, 2019). The impact that may arise in pregnant women with anemia is abortion. Research (Rosadi, et al., 2019) states that there is a relationship between pregnant women with anemia and the occurrence of abortion, as much as 65.2% of pregnant women with anemia experience abortion. Pregnant women with anemia can experience prolongation of the first stage or have a long labor. The results of the study (Latifa et al., 2014) showed that mothers who gave birth who were anemic and had a long first stage were 68.4%. Anemia is also one of the causes of postpartum hemorrhage. Research (Satriyandari and Hariyati, 2017) stated that most pregnant women with anemia experienced postpartum hemorrhage, namely 77.8%. The impact of anemia in pregnant women on the fetus is intrauterine growth retardation (IUGR), premature birth, low birth weight (LBW), and increased risk of neonatal death (Huang, 2015).

The direct cause of anemia in pregnant women is iron deficiency in the body caused by a lack of food sources containing iron, sufficient food but food sources have low iron

content so that the amount of iron absorbed is lacking, and food eaten contains substances that inhibit iron absorption (Roosleyn, 2016).

At the Johar Baru Health Center, there are 341 pregnant women with anemia. This is very important to be a priority for handling anemia in pregnant women in order to produce a healthy generation and strong mothers, through activities carried out together with cadres in carrying out counseling activities on preventing anemia in pregnant women by utilizing processed dragon fruit + guava + honey.

Dragon fruit juice, guava, and honey can help increase Hb levels containing many minerals such as vitamin C, vitamin B, calcium, fiber, phosphorus, protein, vitamin A, vitamin K, vitamin E, and minerals such as selenium, zinc, and manganese. The vitamin C content in guava is higher than in oranges, 100 grams of guava contains 183.5 mg of vitamin C, while 100 grams of oranges contain 50-70 mg of vitamin C. Vitamin C is also found in other foods such as oranges, papaya, broccoli, strawberries, cabbage, and others. However, the highest vitamin C content is found in guava (Hariana, 2018). This theory was also proven in a study conducted (Herdiani, 2019) which found that the content of red guava is effective in increasing Hb levels in pregnant women. Honey contains minerals, such as calcium, phosphorus, potassium, sodium, iron, magnesium, and copper. Other contents, namely 75% glucose, 8% organic acid, protein, enzymes, 18% mineral salts, vitamins, seeds, oil, high iron content that can treat anemia and contains antibiotics. Honey is effective in increasing Hb levels in pregnant women.

Dragon fruit is good for pregnant women because the fiber content in dragon fruit can overcome constipation that is usually experienced by pregnant women and is also rich in iron which helps increase Hb levels. In addition, for pregnant women, this fruit can also be a source of energy and maintain fetal health (Anggi & Swastika, 2019).

An anemia study found that anemia occurs because the intake of iron in pregnant women is not met, resulting in a decrease in hemoglobin levels in the blood. Efforts that can be made to increase hemoglobin levels are by consuming Fe tablets and consuming foods rich in iron<sup>7</sup>. Giving dragon fruit juice and honey can increase the hemoglobin levels of respondents, as seen from the average pretest hemoglobin levels before giving dragon fruit juice and honey and with a span of 14 days there was an increase in posttest hemoglobin levels after giving dragon fruit juice and honey.

Considering the great impact of anemia on pregnant women, we, the 7th batch of Midwifery Professional Students of the National University in the Community Midwifery phase, raised the problem of anemia in mothers by the health problems in Tanah Tinggi Village, Johar Baru District. Management of anemia problems in pregnant women, in addition to providing counseling on anemia, we implement complementary midwifery care, namely providing dragon fruit juice, guava, and honey.

## **Method**

The community service was carried out on Monday, May 6, 2024, at 09.00 – 10.00 WIB. This activity was carried out at the Tanah Tinggi Sub-Health Center, Tanah Tinggi Village, Johar Baru District, Central Jakarta, DKI Jakarta Province.

The materials needed for this activity are dragon fruit, guava, honey, and complementary therapy jargon stickers. Meanwhile, the tools/instruments used in this activity are leaflets and laptops.

This community service is carried out for pregnant women by providing counseling, Q&A discussions of materials, and also demonstrations on how to carry out complementary therapy to overcome anemia through "Take Care of Your Mother" namely Dragon Fruit Juice Mix Red Guava and Honey. This juice can help increase Hemoglobin Levels. The counseling materials provided in community service at the Tanah Tinggi Health Center, Central Jakarta are by the priority ranking of the problem, namely the main priority problem in this community service regarding anemia in pregnant women, its characteristics, how to prevent it and overcome it, both pharmacologically and also non-pharmacologically, namely with complementary therapy that we demonstrate, namely how to make Dragon Fruit Juice Mix Red Guava and Honey.

## **Results**

### **Planning Stage**

In this planning stage, it begins with making a community service proposal. Next, make a permit related to the activities to be carried out, ask for permission from the head of the Tanah Tinggi Assistant Health Center, Central Jakarta, contact cross-sector parties, cadre mothers, and participants who will attend, and prepare all

equipment and needs to carry out the activities.

### Implementation Stage

Starting with conducting a Forum Group Discussion (FGD) to jointly determine the priority of the problem and provide counseling according to the ranking of the priority of the problem. Starting with providing counseling on anemia in pregnant women, then continuing with providing a tutorial on how to make "Take Care of Your Mother" and distributing "Take Care of Your Mother" products and joint consumption activities of the products distributed while the speaker explains how to make it and its benefits which can increase HB levels in pregnant women and then a question and answer session is carried out and finally a documentation session.

### Evaluation Stage

After the series of community service events are completed, to find out whether the counseling and demonstrations carried out were effective and well received, a question and answer session was held appropriately. Pregnant women and cadre mothers who attended this activity were very enthusiastic about asking questions related to the material presented, the activity went smoothly according to plan and ended with a souvenir distribution session as a token of gratitude. This community service went smoothly, communicatively, participants actively answered and asked questions.



**Picture 1:** Juice made from a mixture of dragon fruit, guava and honey



**Picture 2:** With the Pregnant Women's Group

### **Discussion**

Complementary therapy carried out in community service carried out at the Tanah Tinggi Sub-Health Center, Central Jakarta was carried out based on evidence-based effects of consuming dragon fruit juice and red guava + honey on Hb levels in pregnant women. Where based on the results of the study entitled Comparison of Dragon Fruit and Guava Juice in Increasing Hemoglobin Levels in Pregnant Women in the Third Trimester with Anemia with Research Analysis using an independent T-test, Based on the research that has been carried, it can be concluded that hemoglobin levels increase significantly after being given dragon fruit juice to pregnant women in the third trimester with anemia. Hemoglobin levels increase significantly after being given guava juice to pregnant women in the third trimester with anemia. Dragon fruit juice is slightly more effective in increasing hemoglobin levels compared to guava juice in pregnant women in the third trimester with anemia, namely the mean increase in hemoglobin levels in the dragon fruit juice group is 2.68 g / dL and in the guava juice group is 2.56 g / dL. So it is concluded that there is an effect of giving a combination of dragon fruit juice + red guava on increasing HB levels in pregnant women (Nadia, 2023). This research is also proven in a study conducted by Herdiani (2019) which found that the content of red guava is effective in increasing Hb levels in pregnant women. Honey contains minerals, such as calcium, phosphorus, potassium, sodium, iron, magnesium, and copper. Other contents, namely 75% glucose, 8% organic acid, protein, enzymes, 18% mineral salts, vitamins, seeds, oil, high iron content that can treat anemia and

contains antibiotics. Honey is effective in increasing Hb levels in pregnant women. The content of red guava juice has the potential to increase human hemoglobin levels. Vitamin C increases acidity so that it helps the absorption of iron in the stomach by reducing ferri (Fe 3+) to ferro (2+). In addition, flavonoid compounds are antioxidants that play a role in increasing erythrocyte membranes so that they are not easily lysed by free radicals.

## Conclusion

Based on the Community Service that has been carried out at the Tanah Tinggi Assistant Health Center, Central Jakarta on Monday, May 6, 2024, the event went smoothly and was attended by cross-sectoral parties and local cadres. The participants who were pregnant women with anemia were also able to follow the material well, and the participants were enthusiastic about asking and understanding the benefits of dragon fruit juice, red guava, and honey products "Take Care of Your Mother" (dragon fruit juice mixed with red guava and honey).

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