



Bioscientia Medicina: Journal of Biomedicine & Translational Research

Journal Homepage: www.bioscmed.com

Knowledge and Attitudes of Pregnant Women Toward Iron Supplementation During Pregnancy in the Work Area of Pegasing Health Center Central Aceh in 2021

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ARTICLE INFO

Keywords:

Knowledge
Attitudes
Iron tablets
Fe deficiency anemia
Pregnancy

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All authors have reviewed and approved the final version of the manuscript.

<https://doi.org/10.37275/bsm.v6i7.540>

ABSTRACT

Background: This study aims to determine the extent of knowledge and attitudes of pregnant women toward the consumption of iron tablets in the working area of Pegasing Health Center, Pegasing District, Central Aceh Regency, in 2021. **Methods:** This research is descriptive research. The research sample was 35 pregnant women in the working area of Pegasing Health Center. Data were collected and measured using a questionnaire of 40 questions, 20 questions about knowledge, and 20 questions about attitudes. **Results:** The mother's knowledge about the definition and need for iron is in the sufficient category (41.86%), the impact of iron deficiency is in a good category (74.29%) the purpose of giving iron is in the good category (57.14%) containing a source of iron is in the sufficient category (65.71%) while the attitude of pregnant women to the consumption of iron tablets is in a good category (42.86%). **Conclusion:** Most of the respondents have a sufficient level of knowledge regarding the definition, benefits, and food sources of iron during pregnancy. Most pregnant women are well aware of the impact of iron deficiency and the purpose of iron tablet supplementation during pregnancy. The majority of respondents have a good attitude towards iron supplementation during pregnancy.

1. Introduction

The degree of health of mothers, infants, and children is a strategic indicator that can be used as a target for the development of a nation.¹ Iron deficiency anemia is the most common nutritional problem in the world, and the global prevalence of anemia in pregnant women is around 55%.² The physiological iron requirement of a pregnant woman is approximately equivalent to 1000-1200 mg for an average weight of 55 kg. These amounts include nearly 350 mg associated with fetal and placental growth, about 500 mg associated with an expansion of red blood cell mass, and about 250 mg associated with blood loss during delivery.³

According to Wiradnyani et al., the detection of anemia in pregnancy is based on the examination of hemoglobin (Hb) levels at the first antenatal care visit. If the Hb level is <11.9%, the pregnant woman is declared anemic and should be given supplements of 60 mg iron tablets and 0.5 mg folic acid. This supplement is taken regularly 1 tablet per day for 90 consecutive days. If the Hb level is still <11.9%, then the administration of Fe tablets is continued. However, in practice, not all pregnant women take Fe tablets regularly. This could be due to ignorance of the importance of iron tablets for pregnancy.^{4,5}

Data on the distribution coverage of Fe tablets in

Indonesia (i.e., those who received 30 tablets or 1 pack at the first visit or starting at week 20) in 2002 were 64.62%, and Fe3 (i.e., those who received 90 tablets or 3 packs until the third trimester) of 54.92% Fe1 coverage in 2003 was 69.14% and 59.62% for Fe3.⁴

In 2020, in the province of Nanggroe Aceh Darussalam (NAD), the distribution of coverage for Fe1 tablets was 69.38% and 57.19% for Fe3, with a maternal mortality rate (MMR) of 200/100,000 live births. The lowest coverage was in the Aceh Barat district, namely 12.40% for Fe1 and 10.56% for Fe3, with an MMR of 127/per 100,000 live births. Data from the Central Aceh Health Service in 2020 recorded the number of pregnant women as many as 4,483 people and pregnant women who consumed Fe tablets only 2550 people, namely 56.88%.

According to the report on maternal and child health in January-December 2021 at the UPTD Pegasing Health Center, Pegasing District, Central Aceh Regency 2021, the number of pregnant women was 202, while pregnant women with anemia were 26 people. Of the 10 anemic pregnant women who were interviewed, there were 3 pregnant women who said they did not regularly take iron tablets and did not know the benefits of iron tablets. This study aims to describe the knowledge and attitudes of pregnant women towards iron supplementation during pregnancy.

2. Methods

This research is a descriptive study. The study was

conducted at the Pegasing Health Center, Pegasing District, Central Aceh Regency, in December 2021. The population in this study were all pregnant women in the working area of the Pegasing Health Center UPTD, Pegasing District, Central Aceh Regency, in 2021. The sampling technique used was total sampling. A total of 35 pregnant women respondents participated in this study. All respondents who took part in the study had given informed consent and signed a willingness to participate in the study. This research has been approved by the local ethical committee. The data used are primary data obtained through interviews based on a structured questionnaire. The questionnaire consists of 40 questions covering all variables. The research variables were knowledge and attitudes of pregnant women towards iron supplementation.

3. Results

Table 1 shows most of the respondents aged 20-35 years, high school education level, and daily activities as housewives. As many as 41.86% of respondents have a sufficient level of knowledge regarding the definition, benefits, and food sources of iron during pregnancy (table 2). Most of the respondents knew well the impact of iron deficiency and the purpose of iron tablet supplementation during pregnancy (table 2). Based on table 3, the majority of respondents have a good attitude toward iron supplementation during pregnancy.

Table 1. Baseline characteristics of respondents.

Characteristics	Frequency (%)
Age (years old)	
<20	10 (28.57)
20-35	15 (42.86)
>35	10 (28.57)
Education level	
Junior High School	8 (22.86)
Senior High school	17 (48.57)
College	10 (28.57)
Occupation	
Civil servant	4 (11.43)
Farmer	12 (34.29)
Self-employed	2 (5.71)
Housewives	17 (48.57)

Table 2. Level of knowledge of respondents on iron supplementation during pregnancy.

Knowledge levels	Frequency (%)
Definition and need for iron	
Good	9 (25.71)
Enough	15 (41.86)
Less	11 (31.43)
Impact of iron deficiency	
Good	26 (74.29)
Enough	9 (25.71)
Less	0 (0)
Purpose of iron supplementation	
Good	20 (57.14)
Enough	11 (31.43)
Less	4 (11.43)
Food sources of iron	
Good	7 (20)
Enough	23 (65.71)
Less	5 (14.29)

Table 3. Respondents' attitudes about iron supplementation in pregnant women.

Attitude	Frequency (%)
Good	15 (42.86)
Enough	12 (34.29)
Less	8 (22.86)

4. Discussion

The majority of pregnant women's knowledge regarding the definition and need for iron at the Pegasing Health Center, Pegasing District, Central Aceh Regency in 2021 is in the sufficient category (41.86%). This means that respondents do not fully understand the definition and need for iron tablets for pregnant women. To overcome it, that is necessary to provide counseling from Puskesmas cadres and disseminate information through printed media so that respondents do not ignore and ignore existing information, especially regarding the definition and need for iron for pregnant women.⁶⁻⁸

Most respondents have good knowledge about the impact of iron deficiency on pregnancy and the purpose of iron supplementation. Education greatly

affects knowledge, and knowledge is one that affects the initial motivation for someone to behave. Knowledge of pregnant women about food sources of iron is in the sufficient category (65.71%). So it can be concluded that not all pregnant women in the working area of Pegasing Health Center, Pegasing District, Central Aceh Regency have knowledge about foods containing iron sources. To increase their knowledge, so pregnant women are expected to be more active in seeking information related to the purpose of giving iron pregnant women. Therefore, pregnant women are expected to seek information about matters related to foods rich in iron. Based on the results of the study, the majority of respondents' attitudes toward the consumption of iron tablets in the working area of Pegasing Health Center were in a good category

(42.86%). Attitude is a person's reaction or response to a stimulus or object. If someone has a positive attitude, then someone can accept, respond, appreciate, and be responsible for certain materials or objects.⁶

Iron deficiency anemia (IDA) is a common condition during pregnancy.⁹⁻¹² Overall iron requirements during pregnancy are significantly higher than in the nonpregnant state. This is due to the increased need for iron to expand plasma volume, produce a greater number of red blood cells, support the growth of the fetal-placental unit, and compensate for iron loss at birth. In the course of pregnancy, the need for iron presents variations with a growing trend; in fact, there is a lower need for iron in the first trimester (0.8 mg/day) and a much higher requirement in the third trimester (3.0–7.5 mg/day).¹³⁻¹⁵ Early in pregnancy, about 40% of women show low or no iron stores, and up to 90% of women have iron stores <500 mg, which is an amount that is insufficient to support increased iron requirements. IDA often develops in pregnancy, even in developed countries, suggesting that physiological adaptations are often insufficient to meet increased demands, and iron intake is often below nutritional requirements. IDA in pregnancy, if not diagnosed and treated, can have a significant impact on the health of the mother and fetus.¹⁶⁻¹⁹

5. Conclusion

Most of the respondents have a sufficient level of knowledge regarding the definition, benefits, and food sources of iron during pregnancy. Most pregnant women are well aware of the impact of iron deficiency and the purpose of iron tablet supplementation during pregnancy. The majority of respondents have a good attitude towards iron supplementation during pregnancy.

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