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Research Article

Relationship Between Pregnant Women's Knowledge of Iron Tablets and Adherence to Iron Tablet Consumption at Saritani Health Center

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Abstract: Anemia is a common condition among pregnant women, often caused by insufficient iron intake or poor absorption due to digestive issues. This condition can have serious implications for both maternal and fetal health. The primary objective of this study was to explore the relationship between pregnant women's knowledge about iron tablets and their adherence to the prescribed regimen at Saritani Health Center. This study utilized a quantitative approach with a cross-sectional design. The population for this study consisted of all pregnant women visiting Saritani Health Center, with a sample size of 78 women selected through purposive sampling, based on predetermined inclusion criteria. The study's findings indicated that the majority of respondents had a sufficient level of knowledge regarding the importance of iron tablets. A statistical analysis using the Spearman Rank test revealed a very strong correlation between the level of knowledge about iron tablets and adherence to their consumption, with a correlation coefficient of rs = 0.812 and a p-value of 0.000 ($p < 0.05$). This suggests that the higher the level of knowledge about iron tablets among pregnant women, the greater their compliance with taking these supplements. The study also found that while most respondents had sufficient knowledge about iron tablets, their compliance was moderate, which highlights the importance of ongoing education and support. The results of this study emphasize the critical role that knowledge plays in improving compliance with iron supplementation among pregnant women. Health education initiatives targeting pregnant women should focus on increasing awareness and understanding of the benefits of iron supplementation to prevent anemia and its associated risks. This study calls for enhanced counseling and educational efforts at the community health level to ensure better maternal health outcomes.

Keywords: Compliance; Iron tablets; Maternal Knowledge

1. Introduction

Iron deficiency anemia is the most common type of anemia during pregnancy. According to the World Health Organization (WHO), nearly 2 billion people worldwide suffer from iron deficiency, and up to 50% of them are pregnant women (Wibowo, 2021).

Anemia in pregnant women is often referred to as "potential danger to mother and child," which is a potential threat to both mother and child (Elvira, et al., 2023). Iron deficiency anemia in pregnant women has a negative impact on the fetus (WHO, 2019). The impacts caused by pregnant women suffering from anemia include premature birth, low birth weight, and decreased iron reserves which can lead to developmental disorders. Several studies show that anemia during pregnancy contributes to 23% of indirect causes of maternal mortality in developing countries (Stephen et al., 2018).

The provision of Fe tablets is one important effort and an effective way to prevent and treat anemia due to iron and/or folic acid deficiency. Fe tablets are given to women of childbearing age and pregnant women. Pregnant women are given Fe tablets daily throughout their pregnancy or a minimum of 90 tablets (Ministry of Health, 2020). In the Integrated

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Antenatal Care Guidelines 2010, it is stated that pregnant women's adherence to consuming Fe tablets is a very important factor in ensuring an increase in hemoglobin. Providing iron supplementation of 60 mg per day will increase the average hemoglobin (Hb) level by 0.2 g% over 7-10 days of administration, thus the importance of pregnant women's adherence in consuming Fe tablets regularly (Litasari, 2014).

Based on data from the Ministry of Health of the Republic of Indonesia in 2020, the proportion of Fe tablet administration above 90 tablets in pregnant women in Bali province reached 63.1%. The number of Fe tablets consumed by pregnant women above 90 pills in Bali province reached 55.6%. There are several main reasons why many pregnant women do not consume Fe tablets, namely: forgetting (32.9%), boredom (17.6%), side effects (17.4%), nausea-vomiting (13.9%), dislike (11.6%), and other reasons (6.6%) (Ministry of Health, 2020).

Adherence to consuming Fe tablets is measured by the accuracy of the number of tablets consumed, the accuracy of the method of consuming Fe tablets, and the frequency of consumption per day (Hidayah, W. Ansari, 2012). Factors influencing pregnant women's adherence to consuming Fe tablets include knowledge, education level, and frequency of Antenatal Care (ANC) examinations. Not all pregnant women who are given Fe tablets consume them regularly.

2. Research Methods

2.1 This research is a quantitative study using a cross-sectional design.

The population in this study was all pregnant women in the working area of Saritani Community Health Center during the research period. The sample in this study consisted of 78 pregnant women who underwent examinations at Saritani Community Health Center in accordance with the established inclusion criteria, using a purposive sampling method. The data used was primary data.

The research was analyzed using SPSS 26. Data analysis in this study used univariate and bivariate analysis. Statistical analysis employed the Spearman Rho Test with a significance level of $p < 0.05$).

3. Results and Discussion

3.1 Knowledge About Iron Tablets in Pregnant Women

Based on the research results, 17 respondents (29.5%) had good knowledge, 35 respondents (44.9%) had sufficient knowledge, and 20 respondents (25.6%) had poor knowledge. This means that most respondents at Saritani Community Health Center had a sufficient level of knowledge about Fe tablets. The knowledge they possessed was due to respondents understanding the importance of Fe tablets for pregnant women, and respondents obtaining knowledge from health worker outreach and information from social media. Meanwhile, respondents with poor knowledge were due to their household routine

hindering them from increasing their insights and knowledge about Fe tablets. This is seen from the characteristics of respondents based on their occupation at Saritani Community Health Center, where most were unemployed mothers (47.4%). Knowledge is a group or information present in the human mind obtained from the learning process. This is in line with Notoatmodjo's statement that knowledge is defined as the result of knowing, and this occurs after a person perceives a certain object (Notoatmodjo, 2012). A person's education level will influence their response to something, so differences in education levels result in differences in the knowledge respondents obtain about Fe tablet consumption. Another factor might be due to environmental influence. The environment provides the first opportunity for someone to learn good and bad things, depending on the nature of their group, in gaining experience that will affect a person's way of thinking. This factor validates Notoatmodjo's theory (2012) that knowledge is formed after a person truly understands the given object.

3.2 Adherence to Taking Iron Tablets in Pregnant Women.

Based on the research results with 78 respondents, it was found that 17 respondents (21.8%) had high adherence, 32 respondents (41%) had moderate adherence, and 29 respondents (37.2%) had low adherence. This means that most respondents at Saritani Community Health Center had moderate adherence. This is possibly because respondents have not optimally received information about Fe tablets from health workers and the surrounding environment, which greatly influences respondents' knowledge about the importance of Fe tablets in preventing anemia during pregnancy. The higher the level of knowledge about the importance of Fe tablets during pregnancy, the more views or feelings will arise in respondents, accompanied by a tendency to act in a better direction. This statement supports Notoatmodjo's theory (2012) which states that adherence is a readiness to act, one component that forms a complete attitude (total attitude) of a person is knowledge because the higher a person's knowledge, the more their understanding will increase, thus leading to more accurate adherence.

3.3 Relationship between knowledge level about iron tablets in pregnant women and adherence to consuming iron tablets.

Based on the research results, the relationship between knowledge about Fe tablets and adherence to taking Fe tablets in pregnant women showed that of the 23 respondents with good knowledge, 17 respondents (73.9%) had high adherence and 6 respondents (26.1%) had moderate adherence. Of the 35 respondents with sufficient knowledge, 24 respondents (68.6%) had moderate adherence and 11 respondents (31.4%) had low adherence. Of the 20 respondents with poor knowledge, 2 respondents (10%) had moderate adherence and 18 respondents (90%) had low adherence. Better knowledge will increase the resulting adherence. This is reinforced by the results of statistical testing using the SPSS 26.0 program, which showed a Spearman rank correlation value of 0.812 and a p-value of 0.000. This means there is a very strong relationship between knowledge about iron tablets in pregnant women

and adherence to consuming iron tablets at Saritani Community Health Center. With sufficient knowledge, respondents will think about finding the best solution for their health and the fetus they are carrying during pregnancy, especially in preventing anemia. Conversely, low maternal knowledge about the importance of Fe tablets during pregnancy impacts maternal adherence, which will affect maternal behavior in taking Fe tablets.

The results of this study are in line with research conducted by (Hastanti, 2019) which showed that knowledge is related to pregnant women's adherence to consuming iron (Fe) tablets. In line with the research of Citra, et al. (2014) stating that mothers who have good knowledge are mostly adherent to consuming Fe tablets during pregnancy.

4. Conclusions

Based on the analysis of the research results and the discussion above, the conclusions that can be drawn are that the majority of respondents' knowledge about iron tablets is sufficient, the majority of respondents' adherence to taking iron tablets is moderate, and there is a very strong relationship between pregnant women's knowledge about iron tablets and adherence to consuming iron tablets at the Saritani Community Health Center.

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