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THE RELATIONSHIP OF FAMILY KNOWLEDGE AND SUPPORT WITH PREGNANT WOMEN'S COMPLIANCE IN CONSUMING FE TABLETS IN THE WORKING AREA OF PUBLICH HEALTH CENTER POLEANG UTARA

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ABSTRACT

Introduction:*Fe consumption coverage figures in Indonesia have not yet reached the target, including at the North Poleang Health Center, Bombana Regency, Southeast Sulawesi Province, which only reached 12%.*
Objectives:*This study aims to determine the relationship between knowledge and family support and pregnant women's compliance with consuming FE tablets*
Methods:*This research is a quantitative research with a cross-sectional design. The population in this study was 117 people with a sample size of 30 people selected using proportional sampling techniques.*

Results:*The test used was the Chi Square test. The results of the Chi-square statistical test carried out obtained a value of Xhit>Xtab 0.621>3.84. The hypothesis was rejected, based on the assessment criteria, there was no relationship between knowledge and compliance of pregnant women in consuming Fe tablets. Furthermore, the results of the test for the closeness of the relationship showed that the value of φ was 0.471 or showed a moderate relationship. As well as a value of 10,541>3,841, the hypothesis is accepted, based on the assessment criteria, there is a relationship between family support and the compliance of pregnant women in consuming Fe tablets. Furthermore, the results of the relationship strength test show that the φ value is 0.593 or shows a strong relationship.*
Conclusions*: it is recommended for health extension workers thar information is needed for pregnant women and their families on an ongoing basis aboud administration of iron tablet, especially for pregnant woman who hawe a low level of knowledge. The conclusion of this study is that family knowledge and support have a relationship with maternal compliance in consuming Fe tablets.*

Introduction

In Indonesia, based on the results of the Household Needs Survey (2001), it was found that around 40.1%. And based on the National Socio-Economic Survey by the Central Statistics Agency (BPS) and the 2005 Department of Health–Unicef Survey report, it was found that of around 4 million pregnant women, 50% experienced nutritional anemia and another 1 million experienced chronic energy deficiency.(Yamashita et al., 2021). Giving blood supplement tablets (TTD) aims to overcome iron (Fe) deficiency which can cause anemia during pregnancy. Fe tablet supplementation is one of the most effective prevention and control programs for iron deficiency anemia in increasing hemoglobin levels in pregnant women and can reduce the

prevalence of anemia in pregnant women by 20-25%. Where Fe tablets contain 200 mg ferrous sulfate and 0.25 mg folic acid bound with lactose. Pregnant women are advised to consume a minimum of 90 Fe tablets at a dose of 1 tablet per day consecutively for 90 days of pregnancy (Badan Penelitian & Pengembangan Kesehatan, 2019). During pregnancy, iron intake must be increased considering that during pregnancy, the blood volume in the mother's body increases. So to be able to continue to meet the mother's needs and supply food and oxygen to the fetus through the placenta, more iron intake is needed.(Fety et al., 2023). The iron intake that pregnant women give to their fetus through the placenta will be used by the fetus for its growth and development needs, including for brain development, as well as storing it in the liver as a reserve until the baby is 6 months old. Apart from that, iron also helps speed up the healing process of wounds, especially wounds that arise during childbirth(Krisdai et al., 2023).

Based on 2013 Riskesdas data, of the 89.1% of pregnant women who consumed Fe tablets, only 33.3% consumed up to 90 Fe tablets as recommended. The percentage of coverage for administering Fe tablets to pregnant women in 2017 was 80.81%, which also did not reach the target of 90%. The results of the 2018 health care program showed that pregnant women who consumed Fe tablets were 73.2%(MINISTRY OF HEALTH, 2018). According to Wahyuni (2021), low compliance is the cause of failure in treating anemia. Non-compliance with iron consumption arises from pregnant women not being aware that during pregnancy they need iron and may also be caused by side effects from iron tablets (Wahyuni, 2021). Compliance is human behavior that obeys rules, orders, procedures and discipline. Compliance in consuming iron tablets is the obedience of pregnant women to carry out recommendations from health workers to consume iron tablets(Hastuti, 2019). Compliance in consuming iron tablets is the obedience of pregnant women to carry out recommendations from health workers to consume iron tablets. Compliance according to Sackett in patients is "the extent to which an individual's behavior complies with the provisions given by health professionals"(Zulya et al., 2022). The accuracy of how to consume iron tablets, and the frequency of consumption per day. Iron supplementation or giving Fe tablets is an important effort to prevent and treat anemia, especially iron deficiency anemia. Iron supplementation is an effective method because the iron content is supplemented with folic acid which can also prevent anemia due to folic acid deficiency (Litasari and Sartono, 2014).

The preliminary data obtained from Bombana District Health Service data in 2018, based on the ratio of giving Fe tablets, the highest was at the Kabaena Community Health Center, 93% and the lowest was at the North Poleang Community Health Center, 12%. Meanwhile, in 2019, the highest provision of Fe tablets was at the Kabaena Community Health Center, 100% and the lowest was at the North Poleang Community Health Center, 30%. And in 2020 the Kabaena Community Health Center was 100%, the North Poleang Community Health Center was the lowest with 71.30%. Iron tablets as a supplement given to pregnant women according to regulations must be consumed every day, however due to various factors such as poor knowledge and health services for pregnant women as well as the side effects the tablets cause can trigger someone to not comply with the correct consumption of iron tablets so that the purpose of the gift(Zulya et al., 2022). Data on pregnant women obtained from North Poleang Community Health Center data, in 2018 there were 358 pregnant women, in 2019 there were 407 pregnant women and in 2020 there were 369 pregnant women. Knowledge is one of the factors that influences pregnant women to consume Fe tablets. Pregnant women who know the benefits of Fe tablets will certainly consume Fe tablets. The research results prove that the level of knowledge is also a strong supporter in influencing compliance with consuming Fe tablets (Iskandar, 2023). One of the reasons why pregnant women don't take iron tablets includes forgetting, not having family members remind them, whether it's their husband or parents/in-laws who don't know the benefits of iron tablets, feeling they don't need vitamins anymore

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because they're healthy, being afraid that their baby will be too big, not informed by health workers about the importance of iron tablets, nausea after taking iron tablets, defecation turns black(Fajriah et al., 2024). Lack of family support can have an impact on improving the health status of pregnant women, including consuming iron tablets, where the family can provide support to pregnant women so that they comply. The husband's role is very necessary, the husband must also have knowledge about the importance of consuming iron tablets. Because it is caused by unsupportive circumstances and environments
correct and appropriate information about the importance of consuming iron tablets for pregnant women(Hastuti, 2019).

Methods

This research uses a type of quantitative research with a Cross Sectional Study approach where the measurement of variables including risk factors and variables including effects are observed at the same time (Notoatmodjo, 2012). The aim of this research is to determine the relationship between knowledge and Mother's compliance in consuming Fe tablets in the North Poleang Community Health Center Work Area, Bombana Regency. Southeast Sulawesi Province. The variables measured in this study are the knowledge and family support regarding the consumption of iron tablets by pregnant women.

The population of this study was pregnant women, totaling 117 people and determining the sample using the Slovin formula resulted in a total of 30 respondents. The sampling technique uses proportional random sampling. The instrument used to measure family knowledge is a questionnaire consisting of 10 questions about the use of iron tablets, while family support is measured using a family support questionnaire for iron tablet consumption consisting of 16 questions. The data obtained in this study will be analyzed using the chi-square test

Results

A. Respondent Characteristics

Table 1. Characteristics of Pregnant Women in consuming Fe

No	Variable	Category	N	%
1	Age	17-25 years old	19	63.3
		26-35 years old	7	23.3
		≥36 years old	4	13.4
	Total		**30**	**100**
2	Education	elementary school	3	10
		JUNIOR HIGH SCHOOL	17	56.7
		SENIOR HIGH SCHOOL	10	33.3
	Total		30	100
3	Work	Housewife	23	76.7
		Self-employed	7	23.3
	Total		**30**	**100**
4	Knowledge	Good	14	46.7
		Not enough	16	53.3
	Total		**30**	**100**
5	Family support	Enough	12	40

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		Not enough	18	60
	Total		**30**	**100**
6	Fe Consumption Compliance	Obedient	13	43.3
		Not obey	17	56.7
	Total		**30**	**100**

Of the 30 samples, most of them were aged between 17 - 25 years, 19 respondents (63.3%) and only 10 respondents (33.3%) had a high school education level. And as many as 27 respondents (76.7%) work as housewives. Meanwhile, for the category of knowledge about Fe consumption, out of 30 pregnant women there were 16 respondents (53.7%). And there were 18 respondents who had insufficient family support in complying with Fe consumption and 17 mothers who were not compliant in consuming Fe.

B. The Relationship between Knowledge and Compliance with Pregnant Women in Consuming Fe Tablets

Table 2. Relationship between knowledge and maternal compliance with taking Fe tablets

Knowledge	**Compliance of Pregnant Women**				**Total**		φ
	Obedient		**Disobedient**				
	n	**%**	**N**	**%**	**n**	**%**	
Good	5	38.4	9	52.9	14	46.6	0.484
Not enough	8	51.6	8	47.1	16	53.4	
Total	13	100	17	100	30	100	

Based on table 2, it can be seen that of the 14 respondents with a good knowledge assessment, 5 respondents (38.4%) complied with taking Fe tablets and 9 respondents (52.9%) did not comply. Meanwhile, there were 16 respondents with a lack of knowledge, 8 respondents (51.6%) adhered to taking Fe tablets and 8 respondents (47.1%) did not comply. The results of the chi-square test show that the phi value is 0.431, which is less than the alpha value of 0.05. Therefore, it can be concluded that there is no relationship between the mother's knowledge and the compliance of pregnant women in consuming iron tablets.

C. The Relationship between Family Support and Pregnant Women's Compliance in Consuming Fe Tablets

Table 3. Relationship between family support and compliance with pregnant women in consuming Fe tablets.

Family support	**Compliance of Pregnant Women**				**Total**		φ
	Obedient		**disobedient**				
	n	**%**	**n**	**%**	**n**	**%**	
Enough	5	38.4	7	41.1	12	40	0.02
Not enough	8	61.6	10	58.9	18	60	

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Total	13	100	17	100	30	100	

Based on table 5.8, it can be seen that of the 12 respondents with sufficient family support, 5 respondents (38.4%) complied with taking Fe tablets and 7 respondents (41.1%) did not comply. Meanwhile, of the 18 respondents with insufficient family support, 8 respondents (61.6%) complied with taking Fe tablets and 10 respondents (58.9%) did not comply. The results of the Chi-square statistical test carried out obtained a value of 10,541>3,841 with a phi value of 0.02 <0.05, so the hypothesis was accepted, based on the assessment criteria, there was a relationship between family support and the compliance of pregnant women in consuming Fe tablets. Furthermore, the results of the relationship strength test show that the φ value is 0.593 or shows a strong relationship.

Discussion

Relationship between knowledge and compliance of pregnant women in consuming Fe tablets in the North Poleang Health Center working area

Based on the results of statistical tests, it is known that knowledge has no relationship with maternal compliance in consuming Fe tablets with a phi value of 0.484. This finding is not in line with the results of research conducted by Mangopang et.al (2019) which found that knowledge can increase mothers' interest in consuming Fe Tablets.(Mangopang et al., 2022). Likewise, the results of research conducted by Krisdai et.al (2023) show that knowledge is the main trigger for mothers' non-compliance in consuming blood-boosting tablets.(Krisdai et al., 2023).

Based on interviews with pregnant women, many respondents had low knowledge due to the lack of information provided by health workers about iron tablets and anemia in pregnant women. This causes many mothers to not know about the function of iron tablets, the consequences of not taking iron tablets, and things to pay attention to when taking iron supplements. Therefore, intensive counseling is needed by officers for pregnant women who check their pregnancies, so that pregnant women can obtain complete information about anemia in pregnant women and iron tablets.

Knowledge is the result of knowing, and this occurs after people sense. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch. Most human knowledge is acquired through the eyes and ears(Sari et al., 2020). Knowledge has an important role in determining the behavior of pregnant women in dealing with anemia. Mothers who have good knowledge will of course provide positive behavior to overcome anemia during pregnancy by regularly consuming blood-boosting tablets, but mothers who have less knowledge will cause negative behavior in consuming Fe tablets, this will have a fatal impact on the mother and fetus as well. This will pose a high risk of complications during childbirth(Hastuti, 2019).

A mother's knowledge doesn't always translate to her compliance, so even though she knows the benefits of consuming iron tablets, she might not adhere to it. Besides lack of knowledge, other reasons for this lack of correlation between knowledge and compliance include the tendency to follow the activities of previous pregnant women, leading pregnant women to simply follow advice from those around them without deeper understanding of the benefits of iron tablets. This is consistent with the findings of a study conducted by Darmawati et al. (2023), which found that knowledge does not have a significant impact on maternal compliance in consuming iron(Darmawati et al., 2023).

Relationship between family support and compliance of pregnant women in consuming Fe tablets in the work area of the North Poleang Community Health Center

Based on the research results, it is known that family support has a relationship with pregnant women's compliance in consuming Fe tablets. This finding is in line with the results of research by Hastuti (2019) which states that there is a strong correlation between family support, knowledge and the role of health workers and the behavior of consuming Fe tablets as an effort to prevent anemia in pregnant women.(Hastuti, 2019). Primadewi & Dwyami (2021) also found that family support had a relationship with pregnant women's blood-boosting tablet consumption behavior, although the relationship was weak (phi: 0.007 < 0.005).(Primadewi & Diwyami, 2021).

Family support plays an important role for pregnant women. Family support can provide encouragement and motivation for pregnant women to maintain their health, one way being by consuming iron tablets. Family support, especially from the husband, has a significant relationship in improving the compliance of pregnant women in taking iron tablets. This finding is in line with the results of Wahyuni's (2021) study, which showed that family support greatly helps in improving the compliance of pregnant women in Ulalak Selatan Community Health Center, Banjar Masin, in consuming iron tablets(Wahyuni, 2021). A similar statement was also made by Wulandari (2021), who found that family support in the form of moral and material support, as well as providing good nutrition for pregnant women, can improve their compliance in consuming iron tablets(Wulandari, 2021)

According to the researchers' assumptions, many respondents stated that support from their families was poor because they did not receive enough encouragement from their families to consume Fe tablets, either encouragement in the form of information about the benefits and methods of consuming Fe tablets or encouragement to consume Fe tablets given by officers. This lack of support could be caused by the family not knowing enough about the benefits and how to consume Fe tablets during pregnancy.

Family support is verbal information, targets, real help or behavior provided by people who are familiar with the subject in their social environment or in the form of presence and things that can provide emotional benefits or influence on their accepting behavior. In this case, people who feel they have received social support, feel emotionally relieved to be cared for, receive advice or a pleasant impression on themselves(Wiradnyani et al., 2016).

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