

FACTORS AFFECTING COMPLIANCE OF IRON TABLET AMONG PREGNANT WOMEN IN BEKASI REGENCY

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ABSTRACT

Maternal Mortality Rate (MMR) and Neonatal Mortality Rate (NMR) are major health problems in Indonesia. The cause of maternal mortality was hemorrhage, with anemia being the main risk factor. minimum consumption of 90 iron tablets during pregnancy is a common intervention, but compliance with taking iron tablets is still low. At TPMB Susi Yuniarti, Bekasi Regency, a survey showed that 42 pregnant women experienced anemia, 23 of them in the third trimester. In interview showed non-adherence was influenced by ANC visits, attitudes, side effects, and family support. Determine factors related to compliance of pregnant women in consuming Fe tablets in Bekasi Regency. The methodology used a cross sectional design. Populotion in this research is Pregnant women in third trimester. 70 pregnant women in the third trimester as a sample with Total sampling technique taking into account inclusion and exclusion criteria. Instruments in the form of questionnaires and KIA books. Bivariate analysis uses the Chi-Square test. After analysis from 70 of pregnant women in third trimester, 72.9% had appropriate ANC visits, 67.1% had positive characteristics, 60.0% experienced minimal side effects, and 70.0% received good family support. There is a significant relationship between ANC visits ($p=0.000$), attitude ($p=0.000$), side effects ($p=0.026$), and family support ($p=0.000$) with pregnant women's compliance in consuming Fe tablets, with attitude as the dominant factor ($OR=51.063$). There was a significant relationship between ANC visits, attitudes, side effects, and family support with pregnant women's compliance with consumption iron tablets. Health workers are expected to encourage positive attitudes among pregnant women by encouraging regular ANC, dealing with side effects, and strengthening family support to increase compliance, thereby reducing the prevalence of anemia and improving the health of mothers and babies.

Keywords: Ante Natal Care, Attitude, Family support, Iron tablet consumption, Side effects

INTRODUCTION

Maternal and child health issues are a major focus in global health efforts, with the Maternal Mortality Rate (MMR) as one of the main indicators of the success of maternal health programs. In Indonesia, despite a decrease in AKI from 189 per 100,000 live births in 2021 to 91.37 per 100,000 live births in 2022, the SDGs target of 70 per 100,000 live births in 2030 has still not been achieved (Kemenkes RI, 2023; WHO, 2022). In West Java, AKI in 2023 will increase to 96.89 per 100,000 live births, with the main causes being non-obstetric complications and hypertension during pregnancy (Dinkes Jawa Barat, 2023).

Anemia in pregnant women is one of the main risk factors that contribute to maternal death due to bleeding. Anemia is characterized by low hemoglobin levels and can lead to various complications during pregnancy, such as abortion and premature birth (Susiloningtyas, 2019). In Indonesia, the prevalence of anemia in pregnant women reaches 48.9% (Risksedas, 2018), and in Bekasi Regency the figure is even higher, at 50.5% (Dinkes Kabupaten Bekasi, 2023).

To overcome anemia, the Indonesian government has implemented a program to give iron tablets (Fe) at least 90 tablets during pregnancy, with a fairly high coverage in Bekasi Regency reaching 96.6% in 2022 (Dinkes Kabupaten Bekasi, 2023). However, the level of compliance of pregnant women in taking Fe tablets is still low, influenced by factors such as ANC visits, attitudes towards Fe tablet consumption, side effects, and family support.

The results of a preliminary survey at the Independent Midwifery Practice Place (TPMB) Susi Yuniarti revealed that of the 112 pregnant women who made ANC visits, 42 of them had anemia. Many of them do not take Fe tablets regularly, feel side effects, and do not get enough support from their families. This indicates that there is a significant non-compliance in the consumption of Fe tablets, which has a direct impact on the prevalence of anemia.

This study aims to explore the factors that affect the compliance of pregnant women in consuming Fe tablets at TPMB Susi Yuniarti, Bekasi Regency in 2024. It is hoped that by understanding these factors, more effective interventions can be developed to increase pregnant women's compliance, thereby reducing anemia rates and improving maternal and infant health.

RESEARCH METHODOLOGY

This study is a quantitative method with an analytical survey design, with a *cross sectional* design. The population of this study consisted of all pregnant women in the third trimester who underwent pregnancy checks at TPMB Susi Yuniarti, Bekasi Regency and the sample used in this study was 70 people, using a total sampling technique by considering inclusion criteria. The instruments used were questionnaires and KIA books. Statistical tests were used for univariate analysis with frequency distribution and bivariate analysis was carried out by *Chi-Square test*.

RESULT

Table 1 : The Relationship Between ANC Visits, Attitude, Side Effect and Family Support with Compliance of Iron Tablet among Pregnant Women in Bekasi Regency

Variable	Compliance				Sum		p	OR
	Obedient		Non-compliant		f	%		
	f	%	f	%	f	%		
ANC Visit								
Appropriate	41	80,4	10	19,6	51	100	0,000	8,883
Not suitable	6	31,6	13	68,4	19	100		
Total	47	67,1	23	32,9	70	100		
Attitude Pregnant Women								
Positive	43	91,5	4	8,5	47	100	0,000	51,063
Negative	4	17,4	19	82,6	23	100		
Total	47	67,1	23	32,9	70	100		
Side Effects of Fe Tablets								
Little	33	78,6	9	21,4	42	100	0,026	15,400
Many	14	50,0	14	50,0	28	100		
Total	47	67,1	23	32,9	70	100		
Family Support								
Good	41	83,7	8	16,3	49	100	0,000	12,813
Less	6	28,6	15	71,4	21	100		
Total	47	67,1	23	32,9	70	100		

Based on table, it can be seen that out of a total of 51 pregnant women who had ANC visits as scheduled, 41 (80.4%) complied with taking Fe tablets, while 10 (19.6%) did not comply. In contrast, of the 19 pregnant women whose ANC visits were not on schedule, only 6 (31.6%) complied with taking Fe tablets, while 13 (68.4%) did not comply. The results of the chi-square statistical test showed a value of $p = 0.000$ ($p < 0.05$), which means that there is a significant relationship between the suitability of the ANC visit schedule and the compliance of pregnant women in consuming Fe tablets at TPMB Susi Yuniarti, Bekasi Regency in 2024. An odds ratio (OR) of 8.883 shows that pregnant women whose visits are on schedule are 8.9 times more likely to comply compared to pregnant women whose visits are not on schedule.

Based on table showed, it can be seen that out of a total of 47 pregnant women who have a positive attitude, 43 (91.5%) are compliant with Fe tablets, while 4 (8.5%) are not compliant. On the other hand, of the 23 pregnant women who had a negative attitude, only 4 (17.4%) obeyed to take Fe tablets, while 19 (82.6%) did not comply. The results of the chi-square statistical test showed a value of $p = 0.000$ ($p < 0.05$), which means that there is a significant relationship between the attitude of pregnant women and the compliance of pregnant women in consuming Fe tablets at TPMB Susi Yuniarti, Bekasi Regency in 2024. The odds ratio (OR) of 51.063 shows that pregnant women who have a positive attitude are 51.1 times more likely to obey compared to pregnant women who have a negative attitude.

Based on table showed, it can be seen that out of a total of 42 pregnant women who experienced slight side effects of Fe tablets, 33 (78.6%) complied with taking Fe tablets, while 9 (21.4%) did not comply. Meanwhile, of the 28 pregnant women who experienced many side effects of Fe tablets, those who were obedient and non-compliant took Fe tablets had the same amount, 14 obedient (50.0%), and 14 pregnant women (50.0%) did not comply with taking Fe tablets. The results of the chi-square statistical test showed a value of $p = 0.026$ ($p < 0.05$), which means that there is a significant relationship between the side effects of Fe tablets and the compliance of pregnant women in consuming Fe tablets at TPMB Susi Yuniarti, Bekasi Regency in 2024. The odds ratio (OR) of 3.667 showed that pregnant women who felt few side effects were 3.7 times more likely to comply than pregnant women who had many Fe tablet side effects.

Based on table showed, it can be seen that out of a total of 49 pregnant women who feel good family support, 41 (83.7%) are compliant in taking Fe tablets, while 8 (16.3%) are not compliant. On the other hand, of the 21 pregnant women who felt that family support was not good, 6 (28.6%) complied to take Fe tablets, while 15 (71.4%) did not comply. The results of the chi-square statistical test showed a value of $p = 0.000$ ($p < 0.05$), which means that there is a significant relationship between family support and pregnant women's compliance in consuming Fe tablets at TPMB Susi Yuniarti, Bekasi Regency in 2024. The odds ratio (OR) of 12.813 shows that pregnant women who feel good family support are 12.8 times more likely to obey compared to pregnant women who experience poor family support.

DISCUSSION

Relationship between Respondents' ANC Visits and Compliance with Fe Tablet Consumption Compliance

Based on the results of the study, it was shown that the majority of respondents had appropriate ANC visits and found a significant relationship between ANC visits and the level of compliance of pregnant women in taking Fe tablets.

The ANC visit is an important first step in the Fe tablet supplementation program for pregnant women. The success of this program depends largely on how regularly pregnant women attend

ANC visits to receive the necessary Fe tablets. Low participation in ANC visits is often associated with low adherence in Fe tablet consumption (Meliani et al., 2023).

This research is in line with research conducted by Meliani et al., (2023) with the title Factors Related to Compliance in Consuming Fe Tablets in Pregnant Women at the Pembina Palembang Health Center in 2022. The research is in line with a study conducted by Watiah & Soraya, (2024) with the research title Factors Influencing the Consumption of Blood Supplement Tablets in Pregnant Women at the Buaran Health Center in 2023, with the results of the study showing a significant value that states that there is a meaningful relationship between ANC visits and compliance in taking Fe tablets.

The Relationship between Respondents' Attitudes and Compliance with Taking Fe Tablets

Based on the results of the study, it was shown that the majority of respondents had a positive attitude and found a significant relationship between attitude and compliance level and became the dominant factor in influencing pregnant women's compliance in taking Fe tablets.

Attitude is the way a person responds or behaves towards social situations, which includes patterns of behavior, tendencies, and readiness to conform. In simple terms, attitudes also include positive or negative evaluations of an object. Factors that affect a person's obedience are: Emotions, intellect, personal experience, open personality, and self-concept (Arikunto. S, 2006 in Izzah, 2023). An open or closed personality affects how a person takes an attitude in similar situations, and a positive self-concept helps a person to take a more positive attitude in dealing with problems or difficult situations (Izzah, 2023).

This research is in line with the research conducted by Triyanti & Oktapianti, (2023) with the title Factors Affecting Pregnant Women's Compliance in Consuming Fe Tablets at the Mega Maternity Home in Palembang City in 2019. Other research conducted by Aryani et al., (2023) with the title The Relationship between Knowledge and Attitudes of Pregnant Women with Compliance with the Consumption of Iron Tablets (Fe) at the Lhoong Health Center, Aceh Besar Regency in 2022. In addition, this research is also strengthened by research conducted by Purba et al., (2024) with the research title The Relationship between Knowledge and Attitudes of Pregnant Women and Compliance with the Consumption of Iron (Fe) Tablets at the Martoba Pematang Siantar Health Center in 2023, with the results of a significant value study that stated that there was a meaningful relationship between the attitude of pregnant women and compliance in consuming Fe tablets.

The Relationship between Side Effects and Compliance with Taking Fe Tablets

Based on the results of the study, it was shown that the majority of respondents experienced few side effects and found a significant relationship between side effects and pregnant women's compliance in taking Fe tablets.

Side effects in the world of medicine are unwanted adverse effects that arise as a result of treatment or interventions such as surgery. Side effects of giving Fe tablets to pregnant women, such as nausea, vomiting, stomach pain, constipation, diarrhea and colic. Some may also experience a change in the color of the stool to black (Lumy et al., 2023).

This research is in line with several previous studies, namely research conducted by Yohana, (2022) with the research title Factors Related to the Level of Compliance of Pregnant Women in Taking Fe Tablets in the Working Area of the Sumber Harum Health Center, Mussi Banyuasin Regency in 2021. Another study conducted by Riana & Lestari, (2024) with the research title Influential Factors in Pregnant Women's Compliance in Taking Fe Tablets in the working area of the Latambaga Health Center, Southeast Sulawesi in 2023, with the results of a significant value study stating that there is a meaningful relationship between side effects and compliance in taking Fe tablets.

The Relationship between Family Support and Compliance with Taking Fe Tablets

Based on the results of the study, it was shown that the majority of respondents had good family support and found a significant relationship between family support and pregnant women's compliance in taking Fe tablets.

Family support is the attitude, action, and acceptance that a family gives to its members. The family is considered always ready to provide the help and assistance needed. This support can be in the form of encouragement, motivation, attention, or practical help that makes pregnant women feel happy, safe, and comfortable. The active role of husbands, families, and all parties is very influential in the success of pregnant women participating in the Fe tablet supplementation program (Susiloningtyas, 2019).

This research is the same as the research conducted by Lubis & Basaria (2024) with the title of the study, namely The Relationship of Family Support to Pregnant Women's Compliance in Taking Fe Tablets at TPMB Lismayani Lubis, Simalungun Regency in 2023. This is supported by other research conducted by Handayani et al., (2024) with the research title Relationship of Motivation, Family Support, the Role of Health Workers with Pregnant Women's Compliance in Taking Fe Tablets at the Suka Maju Baru Health Center, Bandar Lampung City in 2023. In addition, this research is also strengthened by a study conducted by Rahmayanti et al., (2023) with the research title Factors Related to Compliance with the Consumption of Blood Supplement Tablets (TTD) in Pregnant Women at UPTD. Mengwi I Health Center of Badung Regency in 2022, with the results of a significant value study that stated that there was a meaningful relationship between family support and compliance in consuming Fe tablets.

CONCLUSION

There was a significant relationship between ANC visits, attitudes, side effects, and family support with pregnant women's compliance in taking Fe tablets, as well as attitudes as a dominant factor affecting pregnant women's compliance in taking Fe tablets at TPMB Susi Yuniarti, Bekasi Regency in 2024.

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Conflict of Interest

The authors declare that they no competing interests.

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