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<b>Factors Influencing Compliance of Pregnant Women in Consuming Fe Tablets in Pregnant Women at Belukur Makmur Village Health Post, Rundeng District, Subulussalam City, Aceh Province Year 2024</b>	<b>Mariati</b> e-mail: <a href="mailto:mariatimunthe1992@gmail.com">mariatimunthe1992@gmail.com</a>  <b>Yasrida Nadeak</b> e-mail: <a href="mailto:yasrida.nadeak@gmail.com">yasrida.nadeak@gmail.com</a>  Mitra Husada Health College

### Abstract.

Background: It has become a habit for some pregnant women to complain of dizzy eyes, blurred vision, pale conjunctiva, pale face, yellowing or jaundice skin, fatigue and inability to do many and heavy activities. This is complained of by pregnant women who experience anemia due to lack of iron content in a person's body. This study aims to determine what factors are related to the compliance of pregnant women in consuming iron tablets at the Belukur Makmur Village Health Post, Rundeng District, Subulussalam City, Aceh Province in 2024.

This research method is Analytical with Cross Sectional study research design. Purposive sampling technique with the total population of all pregnant women at Belukur Makmur Health Post is 95 people, the total sample of all pregnant women who meet the criteria is 37 people. The method of data collection for the variables of knowledge, family support, health worker behavior, pregnancy visits (ANC) and compliance of pregnant women in consuming iron tablets with a questionnaire. Data analysis using Chi Square.

The results showed that from 37 samples, 75.7% of pregnant women were included in the non-compliant category, 51.4% had low knowledge, 56.8% had negative family support, 100% had good health services and 56.8% of pregnancy visits (ANC) were inappropriate.

Conclusion: The research variables that have a significant relationship are family support and pregnancy visits (ANC) with the compliance of pregnant women in consuming iron tablets. While the knowledge and behavior of health workers do not have a significant relationship with the compliance of pregnant women in consuming iron tablets. It is recommended to all pregnant women to comply with consuming iron tablets given by health workers during pregnancy and must know the risks that arise if iron tablets are not consumed regularly and appropriately.

Keywords: knowledge, compliance, family support, health services and antenatal visits (ANC).

## I. INTRODUCTION

Pregnant women are the result of fertilization from sperm which causes the mother to carry a fetus in her womb, namely in her uterus. For prospective mothers, this pregnancy is something that is awaited or something valuable because there will be many changes both physically and psychologically for the mother. Women

during pregnancy will need more nutrition than before pregnancy because the mother not only meets the nutrition for herself but also her fetus. Pregnant women will usually experience additional nutrients except for protein and minerals such as iron in the body often experience a decrease (Mulyani, 2017).

According to WHO 2014 estimates and the United Nations International Children's

Emergency Fund (UNICEF) in Azinar's discussion, that there are 529,000 women still die each year from complications of their pregnancies, and almost 90% of these deaths occur in sub-Saharan Africa and Asia. Obstetric complications continue to be the leading cause among women of childbearing age, far ahead of tuberculosis, suicide, sexually transmitted diseases, or AIDS. While developed countries have made great progress in reducing the very large number of deaths associated with pregnancy, women in developing countries continue to face very high risks of death and disability as a result of pregnancy. The risk of a woman dying from pregnancy or childbirth during her lifetime is about 1 in 6 in the poorest parts of the world compared to about 1 in 30,000 in Sweden. (Sumarmi, 2017).

The causes of maternal mortality are pregnancy, childbirth, postpartum, and do not include an accident or fall and so on in 100,000 live births (Ministry of Health of the Republic of Indonesia, 2015). Indonesia in 2012 according to SDKI, the number of MMR reached 359/100,000 live births, and SUPAS data in 2015 the number of MMR also reached 305 per 100,000 live births. However, Indonesia is still categorized as failing or has not succeeded in achieving the target set in number 5 of the MDGs in 2015 because the MDGs set a target to reduce up to  $\frac{3}{4}$  of the risk of maternal death for each country to 102 per 100,000 live births in 2015. (Ministry of Health of the Republic of Indonesia in Santoso, Kurniati, ST, & Keb, 2018).

It can be classified into 2 factors causing maternal mortality, namely direct causes and indirect causes. Direct causes themselves such as bleeding during pregnancy and childbirth, infection during the postpartum period, eclampsia during pregnancy, childbirth and postpartum, obstructed labor in mothers in labor, amniotic fluid embolism and so on. While indirect causes can be disorders during pregnancy such as lack of protein energy in the body, lack of chronic energy in the body and lack of iron in the body or what is called anemia (Kenang, Maramis, & Wowor, 2019).

The number of mothers who died according to the Indonesian Ministry of Health is due to pregnancy and childbirth, reaching 5019 people. While in Indonesia, the cause of AKI is around (34%) caused by bleeding (27%) caused by hypertension during pregnancy, (5%) caused by infection and around (34%) caused by others such as tuberculosis, malaria and lack of iron in the blood, cardiographic disease and so on. However, after being reviewed that the biggest cause of Maternal Mortality Rate (MMR) is bleeding experienced by the mother, the cause of bleeding is caused by a lack of iron in the body or what is commonly called anemia which is also called an indirect cause of death in mothers. (Sumarmi, 2017).

In Indonesia, the prevalence of pregnant women who complain of iron deficiency or anemia has increased compared to 2013, where there were around 37.1% in 2013 pregnant women experiencing anemia. In 2018, there was an increase of around 48.9% (Ministry of Health, 2018). Anemia is a condition of the body with the number of erythrocytes or red blood cells below normal or too small. The benefits of red blood cells are to bind oxygen and carry it throughout the body (Pemiliana, Oktafirnanda, & Santi, 2019).

There are 2 factors that cause anemia, namely direct and indirect. Mother's compliance in consuming blood-enriching tablets, mother's parity, mother's pregnancy interval, mother's infection and mother's nutritional status are direct factors causing anemia in mothers during pregnancy. The most dominant cause of anemia in mothers is the lack of iron content in the body of pregnant women due to the mother's non-compliance in consuming blood-enriching tablets or Fe tablets. That is what makes the incidence of anemia still high due to the lack of iron intake in the body (Suhartati, Hestiana, & Rahmawati, 2017).

According to Kidanemaryam Berhe et al, worldwide in pregnant women the average prevalence of anemia is 38.2% and in Ethiopia, the average prevalence of anemia in

pregnant women is 22%. In his study he explained that the risk factors for anemia in pregnant women in the Eastern Tigray Zone, Ethiopia. The conclusion of his study, the risk factors for anemia in pregnant women are intestinal parasites, the mother's work as a farmer, unprotected drinking water sources, drinking coffee or tea with meals or immediately after meals and low dietary diversification scores. According to them, nutritional interventions should consider risk factors identified early (Berhe et al., 2019).

The results of binary logistic regression showed that anemia was associated with female origin and low literacy levels. The results of the study showed that the diet of anemic mothers was low in iron and could be one of the factors for the development of anemia in this province (Ouzennou, Tikert, Belkedim, Jarhmouti, & Baali, 2018).

Around 94% Coverage of iron tablet provision and more dominant in developing countries but even though it is quite high, it still reaches the target that has been set, which must reach 100%. In 2016, the coverage of iron tablet provision nationally for pregnant women was around 83.6% of pregnant women received and consumed iron tablets. In Indonesia, in each province in the provision of iron tablets, out of 34 provinces, there are 22 provinces that are still classified as not reaching the target that has been set, namely by providing 90 iron tablets during pregnancy. The province that has not reached the target is Aceh Province in 2016, which still reached 73.2%. In the last six years, the coverage of iron tablet provision for pregnant women is around 98,876, namely in 2015, pregnant women who have received iron tablets were around 77% of them from 128,525 target pregnant women, there were 98,876 pregnant women who received iron tablets. There were 98,502 pregnant women or 83% of 118,388 pregnant women in 2014. It is still considered a failure or has not succeeded in achieving the target of providing 90 iron tablets, which is still around 95% (Pemiliana et al., 2019).

Pregnant women in terms of consuming blood tablets also affect the effectiveness of

efforts to provide Fe tablets by health workers. However, the high coverage of provision or pregnant women who receive iron tablets which are considered high does not affect the high incidence of anemia. If pregnant women are still not said to be compliant or are classified as low in consuming iron tablets (NTB Provincial Health Office in Sarah & Irianto, 2018). To overcome the incidence of anemia, one solution is to consume iron tablets. It is considered routine to provide iron tablets in Indonesia such as in Health Centers and Integrated Health Posts, where the iron tablets contain 60mg per day per month which can increase iron in the body by around 1gr% per month. The seriousness or obedience of pregnant women in consuming iron tablets given by midwives or other health workers and consumed routinely and correctly is called the compliance of pregnant women in consuming iron tablets (Sarah & Irianto, 2018).

## **II. LITERATURE REVIEW**

Anemia in pregnancy

Definition

The International Federation of Obstetrics and Gynecology, states that Pregnancy is a meeting of egg cells and sperm cells and unite and nidation or implementation in the uterine wall. Pregnancy is also called the intermediate or transitional period from before the mother has a child to having a child after struggling for approximately 9 months of pregnancy and struggling for the labor process so that the baby is born from the results of the fertilization (Ekasari.Tutik et al. Early Detection of Preeclampsia with Antenatal Care, 2019).

Anemia can also be defined as a hemoglobin (Hb) content that is below normal in the blood. (WHO, 2015). The American National Institute of Health (NIH) states that anemia can occur when the iron content in the body is insufficient or low (Fikawati, Syafiq, & Veretamala, 2017). Anemia is a condition where the number of erythrocytes in the body

is low or less than normal. Red blood cells themselves function to carry oxygen throughout the body. (Susiloningtyas, 2020). Anemia which is commonly complained of by every pregnant woman is caused by an increase in the need for iron during pregnancy, which is around 90% experienced two to three times more than before pregnancy. The greatest need for iron during pregnancy is at the age of pregnancy around the last four weeks of pregnancy. The need for pregnant women for iron can be sufficiently assisted because women do not menstruate during pregnancy so they do not experience bleeding like women in general during menstruation and besides that during pregnancy there is an increased absorption of iron from the food consumed by the mother by the intestinal mucosa, or depending on whether the mother's nutritional intake during pregnancy contains a lot of iron or not. Based on the results of several opinions put forward above, what is anemia in pregnancy is a condition where the hemoglobin content decreases or its content is below normal from what is needed by the body which is caused by a lack of nutritional intake containing iron consumed by the mother during pregnancy from the first trimester of pregnancy to the third trimester of <10.5gr%. (Tarwoto and Wasnidar in Retnorini, Widatiningsih, & Masini, 2017) On the other hand, anemia is associated with adverse health and socioeconomic consequences among pregnant women. Specifically, in a country like Ethiopia, severe anemia increases the risk of maternal mortality by 20%. So far, in one of the Dera Districts, South Gondar Zone, northwest Ethiopia, the magnitude of anemia is considered a moderate public health problem. Thus, improving socioeconomic status, latrines, and maternal iron supplementation coverage is essential to reduce the high burden of anemia. In addition, nutritional education and counseling on the consumption of supplementary foods and iron-rich foods should be improved (Derso, Abera, & Tariku, 2017).

### III. RESEARCH METHODS

#### Types and Design of Research

This study uses a quantitative analytical research type with a research design used in the form of a cross-sectional approach design, where this cross-sectional design is a collection of research data that is carried out once or simultaneously between certain times (point time) and with a quantitative approach (Machfoedz, 2016). The analysis used in this study is univariate and bivariate analysis, while the bivariate analysis of this study uses the chi square test, namely to determine how much relationship there is between one variable and another. Therefore, a hypothesis or temporary assumption is needed in this study.

#### Time and Place for Research

This research was conducted from April to May 2024 at the Belukur Makmur Village Health Post, Rundeng District, Subulussalam City.

#### Population and Sampurna

##### Research population

All subjects involved in the study who are in 1 circle of the research location are called the population (Arikunto in Putri, 2016). The population in this study was all pregnant women at the Belukur Makmur Village Health Post, Rundeng District, Subulussalam City from April to June 2024, a total of 95 pregnant women.

##### Research Sample

The research sample is part of a population that has been determined by criteria (Arikunto, 2019). The sample of this study is all pregnant women who meet the criteria. The number of samples is 37 pregnant women in Trimester III with the calculation:

The total population of pregnant women in the Belukur Makmur village health post is 95 pregnant women. The number of pregnant women in Trimester III is 39 people, Trimester II is 35 pregnant women, Trimester I is 21 pregnant women. The number of pregnant women who were unwilling due to



the reasons of returning home and having no network was 2 pregnant women. So, the actual sample size is  $95-35-21-2 = 37$  pregnant women.

#### Data analysis

In this study conducted in 2024, univariate and bivariate analysis were used. Univariate analysis is an analysis carried out one by one from each to determine the characteristics of each variable. Examples of variables whose characteristics are to be known in this study are knowledge, family support, pregnancy visits and compliance with taking iron tablets. Bivariate analysis is an analysis carried out to determine the relationship between one variable and another. This analysis uses the chi square test, which is carried out because this study wants to determine the relationship between factors that influence maternal compliance in taking iron tablets.

## IV. RESEARCH RESULTS AND DISCUSSION

### Univariate Analysis

The results obtained from the question and answer session with respondents include:

#### Frequency Distribution of Respondent Characteristics

Table 4.1

Characteristics of maternal age, education and parity of mothers at Belukur Makmur Village Health Post, Rundeng District, Subulussalam City, Aceh Province in 2024

No	Characteristics	Frequency	Percent
1	Age		
	• Risky to the mother if (< 20 and > 35 years)	5	13.5
	• No Risk if (20-35 Years)	32	86.4
2	Education		
	• JUNIOR	9	24.3
	• HIGH	23	61.1
	• SCHOOL	5	13.5

- SENIOR
- HIGH SCHOOL

- Bachelor

#### 3 Parity

- Have risk (Parity 1 and  $\geq 4$ ) 21 56.7
- No risk (Parity 2 and 3) 16 43.2

Amount	37	100
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The results of table 4.1 conclude that the characteristics of pregnant women are greater in the age of respondents who are not at risk (86.4%), maternal education is greater than high school (61.1%) and the parity of respondents is greater at risk (56.7%) at the Belukur Makmur Village Health Post in 2024.

### Bivariate Analysis

This analysis is used to determine whether there is a relationship between the independent variable and the dependent variable. If the P value  $< 0.05$  then it is concluded that there is a significant relationship between one variable and another. However, if  $P > 0.05$  it is said that there is no significant relationship between the two variables.

### Discussion

Based on data collection that was successfully carried out in April 2024 to June 2024 regarding factors that influence the compliance of pregnant women in consuming iron tablets at the Belukur Makmur Village Health Post, Rundeng District, Subulussalam City, Aceh Province in 2024. Analysis of the research results was carried out using a computerized system with the following description:

The Relationship Between Pregnant Women's Knowledge and Pregnant Women's Compliance in Consuming Iron Tablets

The results of the study conducted above, concluded that pregnant women who were not compliant in consuming iron tablets were higher in mothers whose knowledge was relatively low, namely (89.5%). When compared to mothers whose knowledge was relatively high, namely (61.1%). This study showed results ( $p$  value  $0.104 > 0.05$ , which means there is no significant relationship between the knowledge of pregnant women to want to consume iron tablets.

After data processing, it was found that the results of this study were the same as those conducted by previous studies. More precisely, the study conducted by Rara and the title of the study was Factors Influencing Pregnant Women's Obedience to Consume Iron Tablets and Their Relation to Anemia in Pregnant Women at the Muaro Kiawai Health Center, West Pasaman Regency in 2019, which after being traced, stated that there was a significant relationship between maternal obedience in consuming iron tablets and the incidence of anemia in pregnant women (Rara, 2019).

If viewed from the results of the research data processing, it can be concluded that the compliance of pregnant women in consuming iron-fortified tablets at the Peranap Health Center is still low if reviewed from the interview results, this condition is caused by the lack of knowledge of pregnant women regarding iron-fortified tablets themselves, both their benefits, how to consume them, the right time to consume them, the risks that can occur if they are not consumed and so on.

Supported also from the side effects of consuming iron tablets themselves, it makes pregnant women lazy or difficult to consume them. When interviewed, some pregnant women admitted that they were not obedient in consuming iron tablets because they forgot to consume them. So that the family, especially the husband, is expected to pay more attention to the mother to help remind the mother to consume iron tablets every day. Some people say they often forget to consume

iron tablets so they need special attention from the family, especially the husband who is with them every day to remind and motivate the mother to consume iron tablets. Because if you look at the side effects experienced by the mother when consuming iron tablets such as nausea, vomiting, difficulty defecating and the smell of iron tablets that pregnant women do not like, they really need motivation from the family, especially the husband, to continue consuming the iron tablets.

According to (Hartono in Rara, 2019) in addition to the factor of often forgetting, the side effects of these iron tablets such as feces changing color to black make pregnant women afraid to consume them even though the change in stool color is actually not dangerous. The level of side effects experienced by each pregnant woman depends on the dose of the drug taken. Because the higher the dose of the drug consumed, the more side effects will arise. However, it can be tricked by taking iron tablets when the stomach is full because it will help reduce the side effects that arise and this method does not hinder the absorption rate at all (Hartono in Rara, 2019).

According to research, pregnant women's compliance in consuming iron tablets according to health workers' instructions is the correct dose, correct target, correct method of consumption, correct time to consume iron tablets. So that knowledge plays an important role and greatly influences mothers to want to follow and obey the instructions given by midwives or health workers. With high knowledge, mothers are able to analyze how important the drug is in the body for the health of the fetus and the mother herself.

#### Relationship between Family Support and Pregnant Women's Compliance in Consuming Fe Tablets

From the results of the study conducted above, it was concluded that the proportion of pregnant women who were classified as non-

compliant in consuming iron tablets often occurred due to lack of family support because there was no one who was an alarm for the mother to remember to consume the drug. (90.5%) compared to pregnant women who had good family support (56.2%). The results of this study concluded that there was a significant relationship between family support for pregnant women in consuming iron tablets. ( $p$  value = 0.044 < 0.05).

Based on the research that has been done, it can be concluded that mothers who are given positive support from their families, especially their husbands, will be more obedient and correct in consuming iron tablets. Because it is undeniable that family and husbands have a very optimal influence on mothers to want to consume iron tablets. Moreover, if we look at the interview study conducted on respondents who said they were not obedient in consuming iron tablets, one of the reasons was because they often forgot to consume them. For that reason, the family plays a very important role as an alarm to remind mothers to consume iron tablets and even remind mothers to always take them correctly and precisely. With the realization of good and positive support from the family, it is hoped that mothers can be categorized as one of the pregnant women who are obedient in consuming iron tablets.

This research is the same as the research conducted by Fitri et al in the city of Bogor, which concluded that their research had a significant relationship between family support and husbands who play an important role in mothers carrying out the recommendations of health workers regarding the correct and appropriate consumption of iron tablets (Fitri, 2015).

#### Relationship between Health Services and Compliance of Pregnant Women in Consuming Fe Tablets

The results of the study showed that the proportion of pregnant women who followed the advice of health workers obediently was (24.3%) and non-compliant was (75.7%) in

consuming iron tablets and at the Belukur Makmur Health Post received good health services. So it was concluded that there was no meaningful or significant relationship between health services and the compliance of pregnant women in consuming iron tablets.

By conducting this study, it was concluded that health workers do not have a high influence on mothers to not comply with consuming iron tablets. This happens because the role and service of health workers at Peranap Health Center are good and of high quality. Because health workers facilitate pregnant women in terms of health with the willingness of health workers to provide counseling, pregnancy classes and provide counseling to every pregnant woman, including in the good category. Supported by the results of interviews conducted with several pregnant women who stated that their friendly health workers, highly knowledgeable and clear communication, easy to understand really help pregnant women to understand what is conveyed by health workers. However, there are only some pregnant women who have less education so that it is difficult to understand and their low knowledge makes it difficult to master what iron tablets are which have the potential to not consume iron tablets.

Health services at Peranap Health Center can be said to be good in providing health services. It's just that family support and knowledge still influence the mother's obedience to consume the iron tablets. Because even though the mother already understands iron tablets very well, if her husband and family do not support her, it is still useless, especially for pregnant women whose husbands play a more dominant role in the family. So it greatly influences the mother to follow the advice of health workers even though the mother actually knows it is very important to consume the tablets.

### The Relationship Between Antenatal Care (ANC) Visits and Pregnant Women's Compliance in Consuming Fe Tablets

The results of the study showed that the proportion of respondents who were not compliant in consuming iron tablets was high in pregnant women with inappropriate antenatal care visits (ANC) (95.2%) compared to non-compliant pregnant women and their appropriate antenatal care visits (ANC) (50.0%). The results of this study showed a significant relationship between antenatal care visits (ANC) and compliance of pregnant women in consuming iron tablets ( $p$  value =  $0.005 < 0.05$ ).

Health workers whose job is to provide quality services to mothers are related to the mother's compliance in making pregnancy visits. Because mothers can get good and quality services if they are willing to have a check-up at the Peranap Health Center. This ANC visit is also related to the mother's level of knowledge. If the mother makes pregnancy visits more often, then automatically the mother's knowledge will also increase because she will hear more often about the benefits of the iron tablets from the midwife on duty at the Peranap Health Center. Because knowledge can be obtained from senses such as hearing, smell, sight. By making pregnancy visits, mothers can also get iron tablets even though this medicine can also be obtained from other health facilities such as clinics and pharmacies. However, mothers who get this medicine for free or for free are only at the Health Center. It has become a habit for pregnant women to make visits only if there are complaints, if the condition is fine the mother does not want to make pregnancy visits even though it is scheduled for a visit. According to research from Lestari (2017) entitled "Factors Affecting Compliance of Pregnant Women in Consuming Fe Tablets at Danurejan 1 Health Center, Yogyakarta City", it states that pregnant women receive iron supplements during ANC visits. Therefore, most pregnant women are not obedient in consuming iron tablets because pregnant women make ANC visits mostly at an

advanced gestational age and at that age the mother receives the blood-boosting drugs. Meanwhile, what is expected is that pregnant women often make pregnancy visits to the Health Center so that they hear more often about the benefits of the blood-boosting tablets which will make mothers more obedient in consuming them. Because the ANC service that is carried out every time a mother makes a visit is one of them is the provision of iron tablets.

Many studies conducted also concluded that one of the factors that makes pregnant women obedient in taking blood-boosting drugs is the mother's compliance in making pregnancy visits. Because mothers often get information from health workers about the benefits of drugs, how to consume them properly, when is the right time to consume them and what risks are obtained if they do not consume the drugs. (Ministry of Health of the Republic of Indonesia in Lestari, 2017).

## V. CONCLUSIONS AND RECOMMENDATIONS

### Conclusion

The research conducted above concluded the research results as follows:

1. The proportion of pregnant women who are not compliant in consuming iron tablets (75.7%) is greater than the proportion of pregnant women who are compliant in consuming iron tablets (24.3%) at the Belukur Makmur Village Health Post.
2. The proportion of pregnant women with low knowledge about iron tablets (51.4%) is greater than the proportion of pregnant women with high knowledge about iron tablets (48.6%) at the Belukur Makmur Village Health Post.
3. The proportion of pregnant women who received negative support from their families (56.8%) was greater than the proportion of pregnant women who received positive support from their families (43.2%) at the Belukur Makmur Village Health Post.



4. All (100%) pregnant women received good health services at the Belukur Makmur Village Health Post
5. The proportion of pregnant women who did not comply with pregnancy visits (56.8%) was greater than the proportion of pregnant women who did comply with pregnancy visits (43.2%) at the Belukur Makmur Village Health Post.
6. There is a significant relationship between the knowledge of pregnant women and the compliance of pregnant women in consuming Fe tablets.(  $p = 0.104$ ).
7. There is no meaningful relationship between health services and compliance in consuming Fe tablets.
8. There is a significant relationship between pregnancy visits (ANC) and compliance in consuming Fe tablets ( $p = 0.005$ ).

#### Suggestion

1. It is expected that every pregnant mother will obey the instructions of health workers, namely consuming iron tablets to meet the needs of the mother and fetus during pregnancy. Because there will be many unwanted risks if iron is not met in the body, especially during the pregnancy process.
2. In terms of maternal compliance, high knowledge is needed for pregnant women so that mothers understand how big the role of iron tablets is for the health of the fetus and the mother and how big the negative impacts are if they do not consume iron tablets. In terms of the knowledge that mothers have, it is very related to the role of health workers in providing clear, effective information. not long-winded so that it is easy to understand for every pregnant woman.
3. Family support, especially husband, is a strengthening factor in providing positive reson and helping mothers to be an alarm for mothers to always remember to take blood-boosting tablets. So that forgetting is no longer the main reason for mothers

to be disobedient in taking the blood tablets.

4. Pregnancy visits also play a role in the compliance of pregnant women in consuming iron tablets, therefore it is hoped that health workers will play a greater role in reminding pregnant women to make pregnancy visits because when pregnant women make more frequent ANC visits, they will be more motivated to consume iron tablets.

#### BIBLIOGRAPHY

- Ahmed,F., Khan,MR, Shaheen,N., Ahmed,KMU,Hasan, A.,Chowdhury, IA., & Chowdhury,R. (2018). Anemia and Iron Deficiency-in Rural Bangladesh Pregnant-Women Living in Areas of High and Low Iron in Groundwater. *Nutrition*,51, 46-52.
- Anjaswarni, T. (2016). Communication in Nursing. South Jakarta. Health Human Resources Education Center-Ministry of Health of the Republic of Indonesia.
- Arikunto, S.(2019). Research procedures.
- Berhe, LK., Fseha, B., GebrehiwotGebremariam, HT, Etsay, N., Welu, G., Tsegay, T. (2019). Risk Factors of Anemia Among Pregnant Women Attending Antenatal Care.. in Health Facilities of Eastern Zone of Egypt, Ethpia, Case-Control Study, 2017/18. *The PanAfrican Medical Journal*, 34.
- Blondin, JH., & Logiudice, JA (2018) Pregnant. Women's. Knowledge and Awareness of Nutrition. *Applied Nursing Research*,39, 167-174.
- Costa, EM, Azevedo, JA, Martins, RF, Alves, CM, Ribeiro, CC., & Thomaz, EB (2017). Anemia and Dental Caries in Pregnant Women: A Prospective Cohort Study. *Biological Trace Element Research*, 177(2), 241-250.
- Ramadhani M (2012) Causes of Anemia in Pregnant Women at Seberang Padang Health Center, Padang City.

- Derso, TAbEra, Z. & Tariku, A. (2017). Magnitude and Associated Factors of Anemia Among Pregnant Women in Dera District: Cross-Sectional Study in Northwest Ethiopia. *BMCResearch Notes*10(1), 359.
- Ekasari.Tutik/et al. (2019) Early Detection of Preeclampsia with Antenatal Care. <https://books.google.co.id/books?id> ,
- Astutik.Yul.Reni.et al. (2018)Anemia in pregnancy. <https://books.google.co.id/books?id> ,
- Rahmi, 2019. The relationship between the level of compliance with the dose, time and method of consuming iron tablets with the occurrence of anemia in pregnant women with a gestational age of 28-31 weeks at the Semanu Health Center. <http://eprints.poltekkesjogja.ac.id/2265/1/SKRIPSI.pdf> .
- Noviazahra.Dhina (2017) factors that determine the consumption of iron tablets in the school program to care about anemia in female high school students in Bantul Regency.
- Amelia.Fieki (2019) the relationship between antenatal care (ANC) visits and the incidence of anemia in pregnant women in the Ciputat Health Center Work Area, Tangerang City.
- Fatonah, H., & IMade, AmG.(2019).Study of Iron and Vitamin C Intake and Anemia Status in Pregnant Women in Bantul Regency, Ministry of Health Polytechnic of Yogyakarta.
- Ministry of Health, Republic of Indonesia. (2018). Hasilnama RISKESDAS2018. Online) [http://www.depkes.go.id/resources/download/info-terkini/materi\\_rakorpop\\_2018/Hasil%20Riskasdas,202018](http://www.depkes.go.id/resources/download/info-terkini/materi_rakorpop_2018/Hasil%20Riskasdas,202018).
- Kenang, MC, Maramis, FR, & Wowor, R. (2019). Factors Related to Pregnant Women's Compliance in Consuming Iron (Fe) Tablets at the Sawang Health Center, Siau Tagulandang Regency, Biaro Regency. *KESMAS*, 7(5).
- Kertiasih, NW, & Ani, LS (2016). Compliance in Taking Iron Tablets in Pregnant Women in the Working Area of Mengwi I Health Center, Badung Regency. Denpasar: Udayana University.
- Rahmatullah., et al. Undergoing a Healthy Pregnancy and Childbirth. <https://books.google.co.id/books?id> , (2019).
- Kini, P. (2016). Micronutrients Deficiencies: Awareness Among Mothers. *Journal of Health, Medicine and Nursing*, 24, 82-88.
- Lugowska, K., & Kolanowski, W. (2019). TheNutritional Behavior of Pregnant Women in Poland. *International Journal of Environmental Research and Public Health*, 16(22), 4357.
- Mulyani, S(2017). "Relationship of Knowledge Level and Family Support to Pregnant Mother's Compliance in Consuming Fe Tablets". *Jambi Medical Journal" JurnalKedokteran DanKesehatan"*, 5(2).
- New, S. & Wirth, M. (2015). Anaemia, Pregnancy, and Maternal Mortality The Problem with Globally Standardised/Haemoglobin Cutoffs *BJOG: International Journal of Obstetrics & Gynecology*, 122(2), 166-169.
- Ouzennou, N., Tikert, K., Belkedim, G., Jarhmouti, F. E., & Baali, A. (2018). Prevalence and social determinants of anemia in pregnant women in Essaouiria Province, Morocco. *Sanjté Pubblique*, 30(5), 737-745.
- Pemiliana, PD, Oktanfirnanda, Y., & Saknti, I. (2019). "Factors Related to Anemia in Pregnant Women in the Third Trimester at Simpang Kiri Health Center, Subuluss City, Aceh Province in 2018". *Window of Health, Health Journal*, 389-402.