



Family Support Toward Adherence of Pregnant Woman to Consume Fe Tablets in Puskesmas Gamping 2, Yogyakarta

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Anemia during pregnancy can lead to premature labor, bleeding and even maternal death. The low adherence of pregnant women in consuming Fe tablets cause the ineffectiveness of Fe supplementation program held by the government to overcome anemia on pregnancy. One of the factor that influence the adherence of pregnant women is family support. This study aims to determine the family support toward adherence pregnant women consume Fe tablets. This research method is descriptive quantitative. The population of this study were pregnant women in Puskesmas Gamping 2 with a sample of 83 people with accidental sampling technique. The data analysis is univariate. The results of this study indicate that family support is good as many as 33 people (39.8%), quite as much as 13 people (15.7%), and less as many as 37 people (44.6%). The conclusion of the study found that pregnant women lacked family support for compliance of Fe tablets.

Keywords: Family Support, Compliance, Pregnant Woman, Fe Tablets.

1. INTRODUCTION

Anemia in pregnant women is a health problem with a high incidence with complications that arise in pregnant women and their fetuses, especially iron deficiency anemia during pregnancy.⁶ These complications include premature delivery, bleeding, impaired growth of the fetus until maternal death.¹⁷ Bleeding in the delivery of mothers is associated with anemia in pregnancy. 40% of deaths mothers in developing countries are related with anemia in pregnancy. Most anemia in pregnancy caused by iron deficiency.¹⁵ Lack of nutrition and poor attention there are pregnant women is a deficiency of deficiency anemia in Indonesia.²⁸ According to WHO, the incidence of anemia in pregnant women ranged from 20% to 89%. Frequency pregnant women with anemia in Indonesia relatively high at 63.5%.¹⁸

Pregnant women with iron-deficiency anemia due to lack of consuming Fe tablets during pregnancy, difficulty getting information or visits by families of unregulated pregnancies.¹ Taking iron supplements can reduce the risk of low birth weight and anemia, increase immunity and prevent anemia in pregnant women.¹³ From 110 pregnant women sample there were 43 (39,9%) pregnant women suffering from anemia got 16 (37,2%) mothers who did not obey in consumption of iron tablet.²⁶ A lack of understanding of anemia is a major factor causing low consumption of Fe tablets in pregnant woman in Indonesia.¹¹

In Indonesia anemia prevention program in pregnant women, by giving iron supplements as much as minimum 90 tablets during pregnancy. Each Fe tablet contains FeSO₄ 320 mg (iron 60 mg) and folic acid 1 mg. So far is the distribution of Fe tablets through at public health services and involving health workers such as; midwives, nurses and health volunteers. But many pregnant women refuse or disobey this advice for various reasons. Handling iron deficiency through iron tablet supplementation is the most effective way to increase iron levels in the short term. Supplementation is usually aimed at groups prone to iron deficiency such as pregnant women and lactating mothers. Adherence of Fe tablets when $\geq 90\%$ of iron tablets should be taken. Coverage the provision of Fe tablets has reached the number 92.2%, but it was a prevalence anemia is still quite high. Cause major unsuccessful activities it is low compliance in consumption of Fe tablets. Compliance of pregnant women taking iron pills is an important factor in ensuring increased levels of pregnant women's hemoglobin.

Iron tablets as supplements given to pregnant women according to the rules should be consumed daily. However, due to various factors can trigger a person to less properly adhere to consumption of iron tablets properly so that the purpose of giving tablets is not achieved. One of the factors that can affect patient compliance in undergoing treatment program is family support.²¹ Family support is the help and spirit given by the family to family members who can give a positive impact on the

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health of family members.⁹ To improve maternal compliance in consuming tablet Fe, health workers should include families in the supervision of drug consumption, drug control is an activity undertaken to ensure the prevalence of drugs in accordance with the dose and schedule as prescribed.¹⁹

As a predisposition factor, knowledge and attitude factor played out an important role in increase obedience of iron consumption as well as family support as a reinforcing factor did.²⁴ Factors of family participation greatly influence maternity compliance in consuming iron tablet during pregnancy.⁷ Husbands' support in consuming iron tablets is largely including support.³ Husbands never ask the truth of pregnant women in how to consume tablets and watch pregnant women in taking iron tablets so that the compliance of pregnant women in low Fe tablets. The form of husband's support for maternal obedience in consuming iron tablets can be to know and watch the mother when consuming iron tablets.¹⁶

Based on the preliminary study of interviews with 31 pregnant women for 2 days on 19–20 October 2015 who checked their pregnancy at Puskesmas Gamping 2, it was found out that only 19 pregnant women were obedient to consume Fe tablets. Those who do not obey because they do not understand the benefits of Fe tablets, lazy to consume Fe tablets because it causes nausea, and forget to consume because family member especially husband not reminded and do not know if not consume Fe tablets can lead to anemia and have an impact on pregnant women and their pregnancy. Based on preliminary study results that have been elaborated, the researchers wanted to examine how the support of family compliance of pregnant women in Puskesmas Gamping 2 Yogyakarta.

2. EXPERIMENTAL DETAILS

This research is a quantitative descriptive research using non experimental design. Descriptive research is, research done to determine the value of independent variables, either one variable or more (independent) without making a comparison, or connect with other variables.²⁷ Non-experimental research is usually time-oriented, that is, describing what exists at any given time. The data obtained are analyzed, and the results can lead to the formation of hypotheses which can then be tested experimentally. The approach used is a cross sectional approach that is the type of research that emphasizes the time of measurement or observation of data independent variables and the dependent variable only once at one time.²³ Population is the sum total of the object to be studied. The population in this study were pregnant women in Puskesmas Gamping 2 by using total sampling technique with total of 83 respondents. Measurements in this study using a family support questionnaire on maternity compliance consuming Fe tablets which has been modified and tested for its validity and reliability. Answers to the questionnaire if it is incorrectly assigned a value (0), if correctly assigned a value (1). The scale used in this variable is the ordinal scale. Respondents got good category (76–100%), enough (56–75%), and less ($\leq 55\%$). The data analysis used is univariate analysis with frequency distribution. Frequency distribution is a list of data values (can be individual values or data values that have been grouped into intervals of a certain interval) accompanied by the corresponding frequency value. Univariate analysis performed on each variable from research generally only produce the distribution and

percentage of each variable.²² The following is the percentage formula of univariate analysis:

$$\frac{f_i}{\sum f_i} \times 100\% = \frac{f_i}{n} \times 100\%$$

Information: P = Percentage of family support, f_i = Number of correct answers, n = Number of questions, 100% = Fixed number.

In this study using the percentage formula is the answer of the questionnaire that has been spread, then each answer in the analysis with the formula percentage of the number of answers divided by the total number of respondents then multiplied by fixed number that is 100%.

3. RESULTS AND DISCUSSION

Table I shows the frequency distribution of characteristics based on the age of the respondent. The majority of the early adult were 39 people (47.0%), based on the majority work not work or as housewife as much as 52 people (62.7%), and the majority of the last education of the respondents is junior as many as 50 people (60.2%). Based on Table I, the majority of respondents were classified as early adults as many as 39 people (47.0%). This early adult age can show positive behavior of pregnant women consuming Fe tablets for health and its contents. At the age of early adulthood, the thought of pregnant women have been able to sort out the good and able to think for his health and the child he conceived with the consumption of Fe tablets.¹⁰ Age is one indicator that can reflect the maturity of a person's actions and decisions.²⁵ Age affects the ability to catch and the mindset of a person. The more ages the more will develop the ability to catch and the mindset, so the knowledge gained more and more.²² The age of pregnant women can be anemia if the age of pregnant women is relatively young (<20 years) because that age is still growth that require more nutrients and if not fully filled competition occurs nutrients between mother and baby.⁴

The majority of respondents work is not working or as housewives as much as 52 people (62.7%). As a housewife there are limitations of socializing and interaction when compared to working moms. They get less info about their pregnancy specifically about Fe tablets. Housewives will be limited in obtaining

Table I. Characteristics of respondents.

No.	Characteristics	Frequency	Percentage
1	Age		
	Early teens	2	2.4
	Late teens	33	3.9
	Early adults	39	47.0
	Late adults	9	10.8
	Totally	83	100
2	Occupation		
	Housewife	52	62.7
	Private	14	16.9
	Others	17	20.5
	Totally	83	100
3	Education		
	Primary school	4	4.8
	Junior high school	50	13.3
	Senior high school	11	16.9
	Bachelor	14	1.2
	Others	3	3.6
	Totally	83	100

info because of less interaction with people, but working mothers will be easy to interact so that info about Fe tablet is easy to get.³¹ Pregnant women who do not work means not having their own income to meet their needs and become dependent husband so tend to be more burden of family economic burden. This condition is influential in obtaining higher knowledge and obtain health facilities.²³

The majority of the education respondents are junior as many as 50 people (60.2%). The higher the level of education received the more insight and knowledge received. This indicates that the knowledge of respondents is also low in accordance with the level of education. This research is in line with research said that as a predisposition factor, knowledge and attitude factor played out an important role in increase obedience of iron consumption as well as family support as a reinforcing factor did.²⁵ Education can affect a person as well as a person's behavior on a lifestyle especially in motivating to behave. Education affects the learning process, the higher a person's education the more easily the person receives information either from others or from the mass media.²² The level of education influential in giving a response to something so the difference in the level of education resulted in differences in knowledge obtained by respondents about the consumption of Fe tablets. Knowledge can make a person have awareness so that someone will behave according to the knowledge they have. Changes in behavior based on knowledge, positive awareness and attitude are timeless because they are based on their own consciousness rather than coercion. Every human being has a different level of knowledge. The level of knowledge starts from knowing, understanding, application, analysis, synthesis and evaluation. The higher the level of a person's knowledge the higher the ability of the individual in the assessment of a material or object. This judgment is what will be the basis for a person to act. Health behavior is the response of a person to the stimulus associated with health care system, illness, illness, food, beverage, and environment.²² The level of education supports a good level of knowledge.¹⁰ The level of knowledge of a person about iron tablets affect the behavior in choosing foods containing iron. This shows that knowledge is very important role in determining compliance in consuming iron tablet compliance of pregnant mother in consuming iron influenced by level of knowledge about the benefits and impact that may arise due to iron anemia in pregnant mother.²⁵ A lack of understanding of anemia is a major factor causing low consumption of Fe tablets in pregnant women in Indonesia.¹¹ But knowledge is not always proportional to the level of education because one can know by seeking information either through asking or reading.²⁸

The level of education is very influential on income. As income increases, health also increases.²⁵ This can affect pregnant women in taking Fe tablets. They should have a pregnancy check-up to the public health services or to the nearest health worker to get the Fe tablet even though there is already a health insurance from the government that makes the cost of pregnancy checks cheap and affordable by pregnant women and although prevention of iron deficiency anemia has long been done in Indonesia. One of the prevention through the iron supplementation program is provided free of charge.

Table II shows the largest percentage of 83 respondents who consumed Fe tablet when pregnant that is as many as 37 people (44.6%) received less support from his family. Family social support can be internal family social support, such as support

Table II. A description of family support for compliance of Fe tablets on pregnant woman.

Family support	Frequency	Percentage
Good	33	39.8
Enough	13	15.7
Less	37	44.6
Totally	83	100

from spouses or siblings or external family social support. Family social support refers to the support that family members see as being accessible or held for the family. Family support includes 4 kinds of assessment support, instrumental support, informational support and emotional support. Assessment support is a support that occurs when there is an expression of positive judgment on the individual. Individuals have someone to talk to about their problems, encouragement and approval of one's ideas or feelings. Instrumental support includes the provision of physical support such as services, financial and material assistance in the form of tangible assistance including direct assistance such as providing transportation, taking care of and caring for sickness. Informational support includes communication and shared responsibility including advice, direction or advice. The family can provide information about the doctor or about any therapy or medical action that needs to be done. Emotional support includes help in the form of spirit, empathy, trust, and attention to other individual family members.⁹

Including family participation is an important basic factor that exists around pregnant women by empowering family members, especially husbands to help pregnant women in improving adherence to consuming Fe tablets. This effort is important, because the pregnant woman is a person who joins the marriage bond and lives in a household building where her husband and family will influence her mindset and behavior including treating her pregnancy.⁹ The husband is the closest person to pregnant women, who can create a physical and emotional environment that supports the health and nutrition of pregnant women.³² The involvement of the husband from the beginning will be very useful to keep emotionally feel calm and confident. Especially if every family expects pregnancy, support and even show support in various ways. Pregnant women will feel more confident, happier during the pregnancy.²⁰

There is a relationship between family support and compliance of Fe tablet consumption.¹⁴ Efforts made by including family participation is an important factor that is around pregnant women by empowering family members, especially husbands to help pregnant women in improving compliance iron tablets consumption. This effort is very important, because the pregnant woman is an individual who does not stand alone, but she joined in a marriage bond and live in a marriage bond and live in a household building where the husband factor will influence the pattern of piker and his behavior is included in treating her pregnancy.⁸

There is a relationship between husband support with adherence of third trimester pregnant woman in consuming iron tablet. Pregnant women who get support from the husband in relation to consuming iron tablet then the mother then the mother will feel appreciated, cared for, and feel loved. Mother's feelings can thus affect the psychological mother to always be a spirit of facing something to be faced, for example when encountering problems regarding the side effects of iron tablets.³ Iron tablets have side

effects for the occurrence of vomiting that affects mothers not to drink iron tablets. Problems that arise in the mother caused by the side effects of iron tablets is already should be considered by the husband. The husband should give understanding to the wife that iron tablets remain to be drunk because it is very needed by the mother during pregnancy for the health of mother and fetus. If the husband does not understand it then the husband can still provide support, for example by escorting the mother to consult with health personnel about the problems that arise so that the mother remained obedient to consume iron tablets.²

The support of husbands to wives can also affect the mother's behavior. Husbands who always remind mothers to drink iron tablets regularly, such as a tablet every day it will encourage the mother to always take one tablet iron one day. Unlike if the husband does not pay attention to the wife then consequently no one reminds the wife if forgot to drink iron tablets. Social support especially from family including husband support can be assured and support the improvement of health so as to reduce non-compliance.¹²

The attitude of pregnant women obedient in consuming Fe tablets and great support from family especially husband.²⁹ The lack of family support of the respondents is due to the knowledge and the family members' preoccupation with the work so the family can't motivate them to consume the Fe tablet. This means that the role of the family has a role in improving the compliance of pregnant women in consuming Fe tablets where pregnant women who have family's role of good participation in the health care of pregnant women is likely to be adherent in consuming Fe tablets. Conversely, pregnant women with a family with less participation will tend to fall less in consuming Fe tablets to be drunk irregularly. Efforts are made by including the role of the family is as important basic factors that exist are around pregnant women by empowering family members, especially husbands to help pregnant women in improving compliance to consume iron tablets. This effort is very important, because the expectant mother is an individual who does not stand alone, but she will join in a marriage bond and live in a marriage bond and live in a household building where husband factors will influence his mindset and behavior included in treat her pregnancy.

Family participation in efforts to improve family health include efforts to improve health to health problems is the greatest challenge aimed at helping families and communities learn how to be healthy in a natural way and can be enjoyed, Not helping to get sick. Like a husband who plays an active role in the pregnancy of his wife, taking his wife while examining her pregnancy, always reminds the wife to take medication during pregnancy, especially regarding the tablets of Sulfas Ferrosus in order to increase maternity compliance and avoid anemia.⁵

Family support and encouragement will further strengthen the motivation of individuals to achieve the desired goals.²⁸ The family plays a significant role in supporting mothers to consume regular Fe tablets. Mothers often forget to take regular Fe tablets even if they do not support their family to remind them.³² Family support is the most influencing factor that contribute to the adherence of Fe tablet consumption among pregnant woman compared to knowledge and education level. Mother which has the support of the family will tend to be compliant to consume Fe tablets, and if mother not getting support will tend not obedient in consuming tablets Fe.¹³

Compliance of pregnant women consuming Fe tablets is a behavior. Human behavior can be grouped into two kinds. They

are closed behavior and open behavior. Closed behavior occurs when the response to the stimulus is still not observable to others (from outside) clearly. One's response is still limited in the form of attention, feelings, perceptions, knowledge and attitudes toward the stimulus. While open behavior occurs when the response to the stimulus already in the form of action or practice that can be observed by others from outside. Explained by Green that realizing the attitude into a real action required supporting factors or conditions that allow. Supportive factors are:

- (1) predisposing factors are factors that can facilitate or cause the occurrence of behavior in a person or society include knowledge, attitudes, beliefs and perceptions,
- (2) supporting factors are enabling factors or behavioral supporters that include the enabling factors or behavioral supporters that include access to health services, skills and references, and
- (3) driving factors are the reinforcement factor for the occurrence of a person's or society's behavior manifested in the form of support from families, neighbors and public figure.²²

4. CONCLUSION

Based on data analysis and discussion it can be drawn conclusion as follows: Pregnant women in Puskesmas Gamping 2 get less support from families in consuming Fe tablets so they were obedient to consume Fe tablets

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References and Notes

1. T. Alemu and M. Umata, *Hindawi Publishing Corporation* 20, 1 (2015).
2. Arisman, Buku Ajar Ilmu Gizi 2, *Gizi Dalam Daur Kehidupan*, EGC, Jakarta (2010).
3. Astami, STIKES Aisyiah Yogyakarta (2014).
4. D. Astuti, Stikes Muhammadiyah Kudus, Kudus (2016).
5. L. Bobak, *Keperawatan Maternitas*, 4 EGC, Jakarta (2005).
6. C. Camaschella, *The New England Journal of Medicine* 37, 1832 (2015).
7. Dyah, Fida Puspasari, Saryono, and Dian Ramawati, *Jurnal Keperawatan Soedirman* (2008).
8. Ekowati, Universitas Jenderal Soedirman Purwokerto, Purwokerto (2007).
9. M. D. Friedman, In a family way: Getting everyone involved (2005).
10. M. Fuady and D. Bangun, *Jurnal Fakultas Kedokteran USU* 1, 1 (2013).
11. Galloway, et al., Women's Perceptions of Iron Deficiency and Anemia Prevention and Control in Eight Development Countries (2005).
12. Imelda, STIKES Jenderal Achmad Yani, Yogyakarta (2016).
13. Kamidah, *Jurnal Ilmu Kesehatan* 7, 1 (2015).
14. N. Kautsar, Suriah, and N. Jafar, Fakultas Kesehatan Masyarakat, Universitas Hasanudin (2013).
15. K. A. Justin, R. J. Stoltz, W. Frank, J. M. Tielsch, S. S. Kalfat, and E. L. Ranfield, *Journal List JPopulNutr* 26 (2008), Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3061267/>.
16. Kusumaningrum, Fakultas Kedokteran UGM, Yogyakarta (2010).
17. A. Mansjoer, et al., *Kapita Selekt Kedokteran*, Edisi III, EGC, Jakarta (2008).
18. Manuaba, Ilmu Kebidanan Penyakit Kandungan dan KB, EGC, Jakarta (2010).
19. M. Maulana, Buku Pegangan Ibu Panduan Lengkap Kehamilan, Kata Hati, Yogyakarta (2008).
20. M. Maulana, Panduan Lengkap Kehamilan: Memahami Kesehatan Reproduksi, Cara Menghadapi Kehamilan, dan Kiat Mengasuh Anak, Kata Hati, Jogjakarta (2010).
21. N. Niven, Psikologi Kesehatan: Pengantar Untuk Perawat dan Profesional Kesehatan Lain, EGC, Jakarta (2002).
22. S. Notoatmodjo, Promosi Kesehatan dan Perilaku Kesehatan, Rineka Cipta, Jakarta (2012).
23. Nursalam, Konsep dan Penerapan Metodologi Penelitian Ilmu Keperawatan, Salemba Medika, Jakarta (2013).

24. L. Purbadewi and Y. N. S. Ulvie, *Jurnal Gizi* 2, 31 (2013).
25. D. Ramawati, Mursiyam, and W. Sejati, *Jurnal Kesehatan Masyarakat* 3 (2008).
26. S. Rejeki, Lembaga Penelitian Dan Pengabdian Kepada Masyarakat (2014), pp. 206–209.
27. Sadariah, Kebidanan UIT (2012).
28. Sarwono Prawirohardjo, Buku Acuan Nasional Pelayanan Kesehatan Maternal Dan Neonatal, PT Bina Pustaka, Jakarta (2009).
29. Sugiyono, Metode Penelitian Kuantitatif Kualitatif, Alfabeta, Bandung (2012).
30. Sunaryo, Psikologi Untuk Keperawatan, EGC, Jakarta (2013).
31. Sutri, STIKES Jenderal Achmad Yani Yogyakarta (2015).
32. Wahyuni, Politeknik Kesehatan Semarang, Semarang (2005).
33. A. Wawan and Dewi, Teori and Pengukuran Pengetahuan, Sikap dan Perilaku Manusia, Nuha Medika, Yogyakarta (2011).
34. L. A. A. Wiradyani, H. Khusun, and E. L. Achadi, *Jurnal Gizi dan Pangan* 3, 63 (2013).

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