

## **Incidence Of Constipation Viewed From The Regularity Of Consumption Fe Tablet In The Class Of Pregnant Women In Klantingsari Village, Tarik Sidoarjo District**

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### **ABSTRACT**

Lack of iron pregnant women cause anemia so that the supply of oxygen to the fetus is reduced. Sources of iron, among others, are found in the liver of cows, kidneys, poultry, fish, soybeans, shellfish, fruit, egg yolks, wheat juice and sugar syrup. Based on the initial survey conducted January 2023 on 10 respondents in Klantingsari Village, Tarik District, Sidoarjo Regency, it can be concluded that the incidence of constipation in pregnant women. This research is correlation analytic survey research with cross sectional approach. The population in this study were all trimester II and III pregnant women who visited the Class of Pregnant Women Klantingsari Village, Tarik District, Sidoarjo Regency in 2023, sampling using the accidental sampling method with the number of 48 respondents. The instrument used was a checklist. The results of the study were tested using the chi squares test. Based on the degree of freedom (df) = 1 with a significance level of 0.05 The results of calculations from the Statistical Test of the chi square obtained p value 0.001 so that the value  $< \alpha$  ( $0.001 < 0.05$ ), then  $H_0$  is rejected and  $H_1$  is accepted, so there is a relationship between regular consumption Fe tablets with constipation in pregnant women. Therefore, it should be balanced with high fiber intake and routine activities to prevent constipation. Keep in mind that the incidence of constipation in second and third trimester pregnant women is not always seen from the regularity of consuming Fe tablets, but there are other factors that support the occurrence of constipation such as physiological factors due to increased levels of progesterone which causes the intestinal peristaltic to be slow, pressure from the uterus an enlarged intestine, lack of activity, etc.

**Keywords:** Constipation, Fe Tablets, Pregnant Women

### **INTRODUCTION**

The incidence of constipation increases with age and the use of iron supplements. Many iron supplements are consumed by pregnant women. Everyone can experience constipation, especially in pregnant women and the elderly (elderly) due to slower peristalsis (a pumping-like movement in the intestines) and possibly other causes. (Movements such as pumping in the intestines) are slower and there are other possible reasons (science-certain-penggulung-keharuan.blogspot.com/2011/11). Iron deficiency for pregnant women can cause anemia so that the supply of oxygen to the fetus is reduced. Sources of iron include beef liver, kidneys, poultry, fish, soybeans, shellfish, fruit, egg yolks, wheat extract and sugar syrup (Harsono, 2013: 216)

Based on the initial survey conducted in January 2023 on 10 respondents in Klantingsari Village, Tarik District, Sidoarjo Regency, by means of interviews, the results obtained were that there were 10 pregnant women who consumed Fe tablets, 7 of them (70%) experienced

constipation and 3 people (30%) not experiencing constipation. From the above data it can be concluded that the incidence of constipation in pregnant women can be caused by Fe consumed, whether consumed regularly or irregularly.

The regularity of pregnant women in consuming Fe tablets can be influenced, one of which is the knowledge factor. Mothers with a good level of knowledge and information about the importance of iron will regularly consume Fe according to the recommendations of health workers, while mothers with minimal knowledge and information about iron tablets will ignore regular consumption of Fe. From the survey obtained, constipation in pregnant women occurs due to a lack of fiber consumption and a lack of information about the side effects of consuming Fe tablets. For this reason, as health workers we must be able to provide a good and correct explanation regarding iron tablets, in addition to recommending consuming them regularly because of their very important benefits for pregnant women, it must also be balanced with recommendations for consuming high-fiber foods and regular activities so as not to overeat. Constipation occurs. The general objective of this study: to analyze the incidence of constipation in terms of the regular consumption of Fe tablets in the class of pregnant women in Klantingsari Village, Tarik Sidoarjo District in 2023.

## METHODS

The research design used includes a correlational analytic research approach *cross sectional*. The population in this study were all pregnant women in the second and third trimesters who visited Class of Pregnant Women in Klantingsari Village, Tarik District, Sidoarjo Regency in 2023 with a total sample of 48 respondents who were taken using a non-probability sampling technique by accidental sampling. The variable in this study was the regularity of consuming Fe tablets on a nominal scale and regular and irregular categories. While the dependent variable is the occurrence of constipation with a nominal scale and the category of constipation occurs and does not occur constipation. This research was conducted in the Class of Pregnant Women in Klantingsari Village, Tarik District, Sidoarjo Regency from January to July 2023 which was measured using a checklist. Data collection was carried out by submitting a research study to the head of the village of Klantingsari, Tarik sub-district, Sidoarjo district, after obtaining permission the samples were selected and observed. After the data is obtained, editing, coding, scoring, tabulating, data entry and cleaning are carried out.

This research was analyzed by using test *chi squares* Which When *p value* > *level of significant* (0.05) so the conclusion is that *H<sub>0</sub>* is accepted and *H<sub>1</sub>* is rejected, meaning that there is no incidence of constipation in terms of the regular consumption of Fe tablets in the class of pregnant women in Klantingsari Village, Tarik Sidoarjo District in 2020 and When *p value* < *level of significant* (0.05) then the conclusion is that *H<sub>0</sub>* is rejected and *H<sub>1</sub>* is accepted, meaning that there is an incidence of constipation in terms of the regular consumption of Fe tablets in the class of pregnant women in Klantingsari Village, Tarik Sidoarjo District in 2023.

## RESULT

### 1. Characteristics of Respondents

Variable	Category	n	%
Age	< 20 years	3	6
	20-30 years	24	50
	31-40 years	18	38
	> 40 years	3	6
Work	Housewife	23	48
	Self-employed	4	8
	Private	19	40
Education	civil servant	2	4
	elementary school	8	17
	secondary school	36	75
	College	4	8

Based on the table above, it is found that half (50%) are aged 20-30 years, almost half (48%) work as housewives and most (75%) have secondary education.

### 2. Regular consumption of Fe tablets

Table 3 Frequency distribution of regular consumption of Fe tablets in classes of pregnant women in Klantingsari Village, Tarik Sidoarjo District in 2023

Consumption Regularity Tablet Fe	Amount	Presentase (%)
Regular	28	58,33
Irregular	20	41,67
Amount	48	100

Source: 2023 Research Primary Data

Based on Table 3 above, it shows that out of 48 respondents, more than half (58.33%) regularly consume Fe tablets, namely 28 people.

### 3. Constipation Incidence in Pregnant Women

Table 4 Distribution of the frequency of occurrence of constipation in trimester pregnant women in the class of pregnant women in Klantingsari Village, Tarik Sidoarjo District in 2023

Constipation Incident	Amount	Presentase (%)
Constipation	29	60,41
No Constipation	19	39,59
Amount	48	100

Source: 2023 Research Primary Data

Based on Table 4 above, it shows that out of 48 respondents, more than half (60.41%), namely 29 pregnant women, experienced constipation.

#### 4. Relationship Between Regular Consumption of Fe Tablets and Constipation in Pregnant Women

Table 5 Cross-table of the regularity of consumption of Fe tablets with the incidence of constipation in pregnant women in the second and third trimesters in the Class of Pregnant Women in Klantingsari Village, Tarik Sidoarjo District in 2020

**Tablet Fe \* constipation Cross Tabulation**

		constipation		Total
		constipation	no constipation	
tablet_Fe	regular	Count	7	22
		% of Total	14.6%	45.8%
	irregular	Count	12	7
		% of Total	25.0%	14.6%
Total		Count	19	29
		% of Total	39.6%	60.4%

Source: 2023 Research Primary Data

In table 5 above, it can be seen that out of 48 pregnant women, almost half (45.83%), namely 22 people regularly consume Fe tablets and experience constipation.

After cross-tabulation, to find out the relationship between the regular consumption of Fe tablets and the incidence of constipation in pregnant women in the second and third trimesters, a test was carried out. Based on degrees of freedom ( $df$ ) = 1 with a significance level of 0.05 Calculation results from the Statistical Test obtained  $p$  value 0,001 so that  $p$  value  $< \alpha$  (0,001<0,05), eye  $H_0$  rejected and  $H_1$  accepted, so that there is a relationship between the regular consumption of Fe tablets and the incidence of constipation in pregnant women.

## DISCUSSION

### Regular consumption of Fe tablets

Based on the results of the study in table 4.4 concerning Regular Consumption of Fe Tablets, it shows that out of 48 respondents more than half (58.33%) regularly consume Fe tablets given by midwives.

According to Sulistyawati (2013), pregnant women need iron intake of approximately 1,000 mg. 500 mg is needed to increase the mass of red blood cells and 300 mg for transport to the fetus when the pregnancy enters the age of 12 weeks, the remaining 200 mg to replace fluids that leave the body. Pregnant women need an average of 3.5 mg/day of iron.

Regularity is the process of accepting a person's response to actions or actions, where this process is based on knowledge, awareness and positive attitudes that have an impact on behavior that is lasting (*long lasting*). Regular consumption of Fe tablets is classified into several criteria. The regular criterion for the Fe Tablet Consumption variable is if the Fe tablets are taken every day at the same time (at night). While the criteria for irregularity in the Fe Tablet Consumption variable are if the Fe tablets are not taken every day and not at the same time, Fe tablets are taken every day and not at the same time and if Fe tablets are taken not every day. This is inseparable from the role of midwives in providing education and information to pregnant women about the importance of iron so that pregnant women want to consume Fe tablets regularly.

### **Constipation Incidence in Pregnant Women Trimester II and III**

Based on Table 4 above, it shows that out of 48 respondents, more than half (60.41%), namely 29 pregnant women, experienced constipation

Constipation or constipation is a disease caused by obstacles to spending food debris associated with difficulty defecating due to hard stools accompanied by pain in the abdomen. During pregnancy, constipation is caused by an increase in certain hormones, which then makes the nervous system work slower than normal. Because the nervous system works more slowly, it causes weakening of the relaxation of the muscles of the digestive tract. That way the food ends up staying longer in the stomach and causing pregnant women to have difficulty defecating (Harsono, 2013). One of the factors causing constipation in pregnant women in the second and third trimesters is the consumption of Fe tablets. Heavy metals in the iron content can affect the mass of the stool so that it can cause constipation when used. Food enters the colon, the colon absorbs water and forms food waste or feces. Colon muscle contractions will push the stool towards the rectum. Once it reaches the rectum, the stool will be solid because most of the water will be absorbed. Hard, dry stools in constipation occur due to the colon absorbing too much water. This happens because the contractions of the colonic muscles are too slow, causing the stool to move towards the colon for too long. Another cause is due to hormonal changes which cause decreased muscle tone which will inhibit intestinal peristalsis. So pregnant women will have difficulty defecating. In this study, more than half of pregnant women experience constipation. Many factors affect constipation, namely lack of fiber consumption, lack of drinking water and can also be affected by Fe tablets.

### **The Relationship Between Regular Consumption of Fe Tablets and Constipation in Pregnant Women**

In table 5 above, it can be seen that out of 48 pregnant women, almost half (45.83%), namely 22 people regularly consume Fe tablets and experience constipation.

After cross-tabulation, to find out the relationship between the regular consumption of Fe tablets and the incidence of constipation in pregnant women in the second and third trimesters, a test was carried out. Based on degrees of freedom ( $df$ ) = 1 with a significance level of 0.05 Calculation results from the Statistical Test obtained  $p$  value 0,001 so that  $p$  value  $< \alpha$  ( $0,001 < 0,05$ ), eye  $H_0$  rejected and  $H_1$  accepted, so that there is a relationship between the regular consumption of Fe tablets and the incidence of constipation in pregnant women

This is in accordance with what was stated by Septi (2011) that constipation can be caused by consuming Fe tablets where the heavy metals in the iron content can affect the mass of the stool so that it can cause constipation when using it. Therefore, consumption of iron needs to be balanced with intake of foods that contain high fiber and regular activities that will stimulate intestinal peristalsis to work normally so that constipation does not occur. From the results of statistical analysis, a relationship can be obtained that pregnant women hi regularly consume Fe tablets have a higher risk of constipation. Therefore, it should be balanced with high fiber intake and regular activity to prevent constipation.

However, in this study there were pregnant women who were irregular and rarely consumed Fe tablets but still suffered from constipation. It should be remembered that the incidence of constipation in pregnant women in the second and third trimesters is not always seen from the regularity factor of consuming Fe tablets alone, but there are other factors that support the occurrence of constipation such as physiological factors due to increased levels of progesterone which causes intestinal peristalsis to slow down, pressure from the uterus enlarged intestine, lack of activity, lack consume fiber and water, and others. In this study, the authors only examined the factor of regular consumption of Fe tablets.

## CONCLUSION

More than half (58.33%) of pregnant women in the second and third trimesters who visited the Class for Pregnant Women in Klantingsari Village, Tarik District, Sidoarjo regularly consumed Fe tablets. More than half (60.41%) of pregnant women in the second and third trimesters who visited the Class for Pregnant Women in Klantingsari Village, Tarik District, suffered from constipation. From Statistical Test *chi squares* obtained *p value* 0,001 so that *p value* <  $\alpha$  (0,001 < 0,05), eye  $H_0$  rejected and  $H_1$  accepted, so that there is a relationship between the regular consumption of Fe tablets and the incidence of constipation in pregnant women.

## REFERENCES

- Andy. (2011). *Constipation Incidence in Pregnant Women*, retrieved March 11, 2015, <http://ilmu-pasti-pengungkap-kebenaran.blogspot.com> (Accessed November, 2011)
- Arikunto, Suharsimi. (2006). *Research Procedures A Practical Approach, Revised Edition VI*. Jakarta: Rineka Cipta
- Asrinah, et al. (2010). *Midwifery Care During Pregnancy*. Yogyakarta: Graha Science
- Budiarto, Eco. (2002). *Biostatistics for Medicine and Public Health*, Jakarta : EGC
- Harson, Tony. (2013). *Common Pregnancy Problems*. \_\_\_\_\_ : Platinum
- Hidayat, Aziz Alimul. (2010). *Midwifery Research Methods and Data Analysis Techniques*. Jakarta: Salemba Medika
- Jordan, Sue. (2004). *Obstetric Pharmacology*, Jakarta : EGC
- Notoatmodjo, Soekidjo. (2010). *Health Behavioral Science, Health Research Methodology*. Jakarta: Rineka Cipta
- Nursalam. (2008). *Concept and Application of Nursing Science Research Methodology*. Jakarta: Salemba Medika
- Romauli, Suryati. (2001). *Textbook of Midwifery Care I: Basic Concepts of Pregnancy Care*. Yogyakarta: Nuha Medika
- Sept. (2011). *Constipation*, retrieved March 11, 2015, <http://bidansepti.wordpress.com> (Accessed June 17<sup>th</sup>, 2011)
- Soediaoetama, Achmad Djoeni. (2006). *Nutrition Science for Students and Professions Volume II*. Jakarta: Dian Rakyat
- Sulistiyowati, Ari. (2013). *Midwifery Care During Pregnancy*. New York: Salemba Media.