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Relationship Level of Knowledge about Anemia with Compliance Consuming Fe Tablet in The Public Health Centre

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ABSTRACT
Due to their inability to meet their own iron requirements, mothers who are pregnant with iron deficiency are placing their unborn children at risk for birth defects such as low fatal organ maturity and prematurity. Hypovolemic hemorrhage during labour in anemia conditions increases the chance of death. Pregnant women's knowledge of anemia and their adherence to Fe pills in the Public Health Centre, Langkat Regency were the primary goals of this study. Cross-sectional surveys were used in this type of research. All pregnant women in the working area of Public Health Centre, Langkat Regency, were surveyed in August, with a total of 68 people participating. For this investigation, the method of sampling was total sampling. Results of the Study Regarding 67% of those polled have inadequate information about anemia, and 41% of those polled don't take their medication as directed (60.3%). Adherence to taking Fe pills is strongly influenced by a person's level of knowledge. The p-value is less than 0.05. Increasing pregnant women's knowledge of the importance of taking Fe pills is recommended in order to raise their degree of adherence to taking Fe tablets

Keywords: Knowledge, Compliance, Anemia

INTRODUCTION

Among the nation's current health issues are the high rates of maternity and new born mortality, infectious diseases, degenerative diseases, and dietary deficiencies (Baharuddin et al., 2019; Kim et al., 2019). This problem is fundamental because it affects the quality of human resources and can improve health. As it is, anemia is one of Indonesia's four key unsolved nutritional issues (Aznam & Inayati, 2021; Fathony et al., 2022; Kedir et al., 2021). Lack of iron and folic acid in the body, as well as other causes like viral disorders, parasitic worms, and chronic diseases are all contributing factors to anemia in Indonesian women (Assefa et al., 2021). One sign of anemia is anemia, which is a deficiency in nutrients necessary for the production of hemoglobin (HB) in the blood. The most common cause of anemia in Indonesia is a shortage in iron (Fe), which is why the condition is also known as iron nutritional anemia or iron deficiency anemia (Manikam 2021; Kumar et al., 2022; Georgieff 2020). Fe pills have been distributed in an effort to address this issue. Fe tablets' use in prenatal care (ANC) services is closely linked to the use of Fe tablets. Fe coverage of the fourth examination (K4) is often found to have a substantial gap, which may be due to a lack of coordination between related programs or a lack of reporting and recording of Fe coverage of pregnant women.

K4 is an 8-9 months-pregnant check-up that is done at this time. The services offered are the third examination follow-up, birth difficulties detection and delivery preparation. K4 health services for pregnant women require pregnant women to receive iron supplements (Warnaini et al., 2022; Simarmata & Sirait, 2020). Total of 90 tablets of iron supplementation is provided to expectant mothers (Fe3). Red blood cells can only be formed if the body has enough iron (hemoglobin). Along with helping to make hemoglobin (a protein that transports oxygen throughout your body), iron is essential in the production of enzymes and collagen (a protein found in your bones, cartilage, and connective tissue). As a component of the body's immune system, iron plays an important role (Aly et al., 2018). Iron plays a critical role in fatal growth in pregnant women (Skalnaya et al., 2019; Susanti, 2022). Pregnant women should increase their

iron intake since the volume of blood in the mother's body rises during pregnancy. The placenta is a conduit for delivering food and oxygen to the fetus, hence increased iron intake is required to meet the mother's demands (Maqbool 2019). For the first six months of a baby's life, the placenta stores the iron that pregnant women provide to their unborn children. This iron is utilized by the unborn child for growth and development, including the development of the brain. Wounds after childbirth, in particular, benefit from iron's ability to speed up the healing process. Pregnant women can get anemia if they have untreated iron deficiency since before pregnancy. The mother and fetus are more prone to infection, miscarriage and premature birth when this disease is present, all of which can lead to a higher chance of death during childbirth. In 2014, 85.1% of pregnant women in the United States received Fe pills, which was short of the program's aim of 95%. DKI Jakarta (94,8%) and Central Java (95%), three of Indonesia's provinces, had the highest percentages of Fe3 coverage in 2014. (92.5%). West Papua, Papua and Banten all had the lowest resident's percentages covered (61.4%).

Pregnant women should be given 90 pills and a pint of blood every three months, according to a new study. Pregnant women who follow their doctors' orders to take iron supplements are said to be compliant with the prescription to do so. A person's compliance with taking iron tablets was assessed by looking at how many tablets were taken each day, how accurately they were taken, and how often they were taken (Anggraini et al., 2018). Anemia, especially iron deficiency anemia, can be prevented and treated with iron supplementation or the administration of Fe pills (Limbong et al., 2022). Anemia caused by a lack of folic acid can be prevented with the help of iron supplements, which contain folic acid (Birhanu et al., 2018; Samson et al., 2020). Pregnant women who fail to take their iron supplements may be more likely to suffer from anemia. Pregnant women's awareness, level of schooling and frequency of ANC exams all play a role in their adherence to taking iron supplements (Triharini et al., 2018; Jirakittidul 2018). Pregnant women who are given Fe pills may not be consuming them on a regular basis because of a lack of awareness about their relevance during pregnancy.

It is only when a person has "known" something that they can claim to have knowledge, according to person name is Wawan. The five human senses, including sight, hearing, smell, taste, and touch, all have a role in sensing. The senses of sight and sound provide us with the vast majority of what we know. Anemia information will become more readily available (Anger et al., 2019; Warner et al., 2020). orders the more pregnant women know about anemia, the more likely they are to comply with their doctors to take iron supplements. A significant part of disseminating knowledge about Fe tablets is played by medical professionals. This is due to the fact that taking Fe tablets on a regular basis helps raise hemoglobin levels during pregnancy, preventing anemia and excessive bleeding in the mother and ensuring a healthy delivery. Based on interviews done with pregnant women at the Public Health Centre, researchers found seven women who indicated it was critical for pregnant women to take Fe pills on a regular basis; however, three others said they had no idea that this was necessary. Regularly, Maternal compliance with Fe pills was found to be low in two mothers who took them consistently (Ulfa & Wibiosono, 2020), while four others took them sporadically because they forgot to drink, felt queasy after taking them, were too busy at work, or otherwise believed they didn't need to take them. because they have a good feeling about their health when pregnant (Pohan 2022).

METHODS

Research that uses a cross-sectional design (a survey or research that investigates how and why a health phenomenon occurs) to measure or observe at the same time (one time) between risk factors/exposures and disease is referred to as an analytical survey research. A 19-year-old man was shot and killed A total of 68 pregnant women from Public Health Centre were included in this study. Because the entire population was used as a research sample (as many as 68 persons), the sampling method used in this study was called Total Sampling.

RESULTS

Univariate Analysis

Studying pregnant women's knowledge of anemia and their compliance with Fe tablet consumption at Public Health Centre yielded the following results of univariate analysis includes characteristics of age, education, occupation, parity, knowledge and compliance. The characteristics of the 68 respondents in this study consisting of age, education, occupation and number of children can be seen in the following table:

Table 1
Frequency Distribution of Respondents' Age, Education, Occupation and Number of Children in the Working Area Public Health Centre, Langkat Regency

Variable	Frequency	Percentage
Age (years)		
<25 years old	17	25
25-30 years	33	48.5
31-35 years old	12	17.6
>35 years old	6	8.8
Education		
JUNIOR HIGH SCHOOL	22	32.4
SENIOR HIGH SCHOOL	46	67.6
Work		
IRT	13	19.1
Farmer	22	32.4
Trader	33	48.5
Parity		
1 Child	15	22.1
Two children	32	47.1
3-4 Kids	21	30.9
Total	**68**	**100.0**

Of the 68 participants in the study, 25% were under the age of 25, 48.5% were in the 25–30 year age bracket, 17.5% were in the 31-35 year age bracket, and 8.8% were over the age of 35. 33 persons, or 80%, are between the ages of 25 and 30 years old (48.5%). Among the 68 participants who participated in the study, 32.4% had a junior high school education and 66.6% had a high school education, according to the findings. As a result, 46 of the respondents had at least a high school education (67.6%). Thirty-three of the 68 participants were farmers, while 13 people were domestic workers, 22 people were traders, and 22 people worked in the retail sector. Farming is the most common occupation among the survey participants; 33 persons are employed in this capacity (48.5%). Parity was found to be 22.1% among the 68 participants, 47.1% among those who had two children, and 30.9% among those who had three or more. As a result, the majority of responders have two children, with up to 32 persons in total (47.1%).

Respondents Knowledge Level

Relative to their replies, it is possible to divide respondents' knowledge of anemia into two categories: good (scores of 6–10) and less (scores of 0-5), as shown in the accompanying table. Good knowledge of anemia is represented by a score of 6–10:

Table 2
Frequency Distribution of Respondents' Knowledge in the Working Area of the Public Health Centre

Knowledge Category	(f)	(%)
Well	22	32.4
Not enough	46	67.6

Total	**68**	**100**

Source: 2015 research data

Table 2 shows that from 68 respondents, 22 people (32.4%) have good knowledge about anemia, 46 people (67.6%) have less knowledge. Thus, the majority of respondents have less knowledge about anemia as many as 46 people (57.6%).

Respondents' compliance with taking Fe tablets

Based on the results of the recapitulation of the 6 respondents' answers regarding compliance above, the respondent's adherence to consuming Fe tablets can be categorized into 2 categories, namely obedient (if you get a score of 4-6), and non-compliant (if you get a score of 0-3) such as presented in the following table:

Table 3

Distribution of Frequency of Respondents Compliance Consuming Fe Tablets in the Work Area

Compliance Category	(f)	(%)
Obey	27	39.7
Not obey	41	60.3
Total	**68**	**100.0**

Source: 2016 research results (processed data)

Table 3 shows that out of 68 respondents, 27 people (39.7%) adhered to taking Fe tablets and 41 people (60.3%) did not adhere to Fe tablets. Thus, the majority of respondents did not comply with consuming Fe tablets as many as 41 people (60.3%).

Bivariate Analysis

For the purpose of determining the link between knowledge and the dependent variable, bivariate analysis was used (adherence to consuming Fe tablets). Fe pill consumption was studied using a chi-square test with a 95% confidence level (p 0.05) and the following results were found:

Table 4

Cross-tabulation of the Relationship between Knowledge Level of Pregnant Women and Compliance with Taking Fe Tablets in the Work Area of Public Health Centre

Knowledge	Consuming Compliance Fe tablets				Total		*p-value*
	Obey		Not obey				
	f	%	f	%	f	%	
Well	15	22.1	7	10.3	22	32.4	0.001
Not enough	12	17.6	34	50	46	67.6	
Total	**27**	**39.7**	**41**	**60.3**	**68**	**100**	

Source: 2016 research results (processed data)

There are 15 people (22.1%) who take Fe tablets religiously, and there are 7 people (10.3%) who don't, according to the cross-tabulation data in Table 4. Twelve respondents (17.6%) continued to take Fe pills despite their lack of understanding, while 34 respondents (50%) refused to do so, out of the 46 people (67.6%) who did. Those who are less knowledgeable with Fe pills are the majority of those who don't take them, with 46 people reporting that they don't take those (67.6%). Chi-square tests show that pregnant women in the Public Health Centre Work Area of Indonesia are aware of anemia and adhere to taking Fe tablets, and that the p-value (0.001) is less than 0.05 for this association. According to this study, pregnant women who are aware of the link between anemia and iron deficiency are more likely to take their iron supplements, proving that pregnant women who are aware of the link between anemia and iron deficiency are more likely to take their iron supplements.

DISCUSSION

Knowledge Level of Pregnant Women about Anemia

It was found that 46 people out of a sample had no idea what anemia was, according to the results of a descriptive study (67.6%). This may be seen in the responses of the respondents, who answered only one of the 10 questions regarding anemia correctly, namely the question about anemia's definition. While the majority of respondents failed to correctly answer the remaining

nine questions. In light of this, it is clear that responders had little understanding of anemia. Sulistyowati FR. D.'s research on pregnant women's anemia knowledge at Public Health Center, Indonesia, found that from 35 respondents, only 2 had strong knowledge, 22 had sufficient information, and 5 had no knowledge. This research is not in line with Sulistyowati's findings. 6 persons (17.14%) have a poor understanding of the topic. A study by Soraya MN at the Keling II Public Health Centre indicated that only 28 out of 69 respondents were aware of the link between anemia awareness and iron (Fe) tablet use in pregnant women. This study also contradicts that finding. Only 9 persons (13.0%) have less than adequate knowledge (40.6%), while 32 people (46.4%) have adequate knowledge.

The lack of knowledge found in this study was mostly attributable to the fact that 33 of the participants were farmers, the bulk of the survey's participants (48.5%). It is difficult for the respondent to gather health information or participate in other activities that enhance one's understanding since they are too busy at work to do so. As a result, respondents have less time to seek out information on health issues, including anemia in pregnancy, from electronic media, print media, and health care providers. Notoadmodjo asserts that education and employment, in addition to one's chronological age, have an impact on one's level of knowledge. When it comes to a person's job, there are a number of duties and responsibilities that must be fulfilled. People with low employment status often have a lower degree of education (Hussar et al., 2020; Reiss et al., 2019).

Compliance of Pregnant Women Consuming Fe Tablets

It was determined through a descriptive study that 41 out of the total responders failed to take Fe pills as prescribed (60.3%). Minarti's research, which describes the behaviour of pregnant women in the third trimester of adherence to iron pills in the working region of the Lealea sub-district health centre, is in line with this research (Sari 2021). A survey of 30 people indicated that 18 (or 60%) did not follow the rules. around 80% of those who were told to take Fe pills did so, including as many as 12 people (about 60%). Pregnant women who do not comply with taking iron tablets are 22 people (52.4%), while those who are obedient are 20 people (Table 2). (47.6%). Only 30 tablets were consumed (33.33%), while 90 tablets were consumed (90%) (100%). The average pill count was 70.93 18.69.

Assumedly, there are more pregnant women who refuse to take iron supplements than those who do, according to the researcher (Fouelifack et al., 2019). After conducting a survey, researchers found that the most common reasons pregnant women fail to take iron tablets are due to forgetfulness, laziness, and a lack of understanding of its purpose (Museka et al., 2018). In addition to the knowledge element, the poor level of compliance of pregnant women in ingesting iron tablets is also influenced by other variables, such as forgetfulness, fear of the baby being large, lack of information about the need of iron tablets and anemia produced after taking tablets iron. Pregnant Women Class participation was omitted from this study, which means it could have been a troubling aspect. Maternity classes are thought to help pregnant women adhere to their iron supplementation regimens.

Relationship between Knowledge Level of Pregnant Women about Anemia and Compliance with Consuming Fe Tablets

According to data gathered in the Public Health Centre of Work Area, pregnant women knew a lot about anemia, but only 15 of them (22.1%) took their medication as prescribed, while 7 of them (10.1%) didn't take their medication as prescribed. However, only 12 of 46 people (or 67.6%) who were less knowledgeable about the benefits of taking Fe pills complied with the recommendation to do so, while 34 people (or 50%) refused to do so. Pregnant women's knowledge of anemia and their adherence to taking iron tablets is linked, as shown by a chi-square analysis in the attached chi-square test table, and the probability value is given by sig-p = (0.001) or > sig = 0.05. Pregnant women's understanding of anemia is linked to their adherence to Fe pills in Public Health Centre, according to this study.

Aini KN's study, titled "The relationship between the level of knowledge of pregnant women and adherence to the consumption of Fe tablets at BPS Ny," found that p is 0.000 0.05 and

H0 is rejected, meaning that pregnant women's knowledge and compliance with the consumption of Fe tablets at BPS Ny are linked. This study confirms the findings of Aini KN. Pregnant women's willing to use Fe pills depends on their knowledge, attitudes, beliefs, customs and so forth. Health care providers' attitudes and behaviours toward health services, as well as the facilities they have access to, all help to shape and strengthen behaviour in patients (Lekas et al., 2020). In order to be obedient to taking Fe tablets, a person needs to know the benefits of Fe tablets and the consequences of not taking Fe tablets regularly. But the absence of support from the husband and family may also be to blame. Pregnant ladies who have a good understanding of Fe pills are not obedient in taking Fe tablets (Karyuni et al., 2020). Actions are shaped by knowledge or cognition, and this domain is critical (overt behaviour). Because studies and experience show that knowledge-based behaviour has a longer shelf life than ignorance-based behaviour.

CONCLUSION

The formulation of one's behaviours is greatly influenced by one's knowledge or cognitive abilities. Based on observations and study, it appears that knowledge-based behaviour is more likely to last than knowledge-based behaviour that is not based on information. As evidenced by a study in which 22 respondents (32.4%) were asked, 15 respondents (22.1%) complied with Fe tablet consumption and only seven respondents (10.3%) did not comply with Fe tablet consumption. In contrast, only 12 of the 46 respondents (17.6%) who had less knowledge complied with the instructions to take Fe pills, while 34 respondents (50%) disobeyed the instructions and only 12 respondents (17.6%) did as instruct. Pregnant women, in particular, should get health promotion counselling from local health workers about Fe pills, including how to take them and their effects, so that they can take them more regularly and prevent the risk of anemia during pregnancy.

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