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"The Relationship of Pregnant Women Knowledge about Iron Deficiency Anemia and the Role of Family in Compliance in Consuming Fe Tablets in Health Center"

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Abstrak

Kehamilan menyebabkan peningkatan metabolisme energi, sehingga kebutuhan energi dan nutrisi lainnya meningkat selama kehamilan. Jika kadar zat besi dalam tubuh ibu hamil kurang, maka akan ada kondisi yang disebut anemia. Sebagian besar anemia dalam kehamilan disebabkan oleh kekurangan zat besi. Cakupan pemberian tablet Fe di Indonesia adalah 69,14%, dimana 17% wanita hamil tidak mematuhi Tablet Fe. Salah satu penyebab rendahnya konsumsi Fe adalah peran keluarga dan pengetahuan. Tujuan dari penelitian ini adalah untuk mengetahui Pengetahuan Wanita Hamil tentang Anemia Kekurangan Zat Besi dan Peran Keluarga dengan Kepatuhan dalam Mengkonsumsi Tablet Besi di Puskesmas. Penelitian ini merupakan penelitian analitik dengan studi cross sectional. Dalam penelitian ini subjek adalah semua wanita hamil tanpa melihat semester hamil dan mendapatkan tablet Fe di pusat kesehatan Tanjungpinang berdasarkan data yang terdiri dari 40 responden. Hasil penelitian ini adalah ada hubungan yang signifikan antara pengetahuan ibu hamil dengan anemia defisiensi besi dengan tablet besi kepatuhan dengan nilai p-value 0,814 menunjukkan bahwa tidak ada hubungan antara pengetahuan ibu hamil tentang anemia defisiensi besi dengan tablet besi kepatuhan kepatuhan. Peran Keluarga dalam memantau tablet zat besi dengan Kepatuhan Mengkonsumsi Besi adalah hubungan antara peran keluarga dalam memantau tablet zat besi dengan tablet zat besi yang dikonsumsi. Studi ini direkomendasikan agar penelitian lebih lanjut tentang peran keluarga sebagai pengawas ibu hamil yang minum untuk tablet Fe.

***Kata Kunci** : Wanita Hamil, Anemia Kekurangan Zat Besi, Peran Keluarga, Konsumsi Tablet Besi*

Abstract

Pregnancy leads to increased energy metabolism, hence the need for energy and other nutrients increases during pregnancy. If levels of iron in the body of pregnant women is less, then there will be a condition called anemia. Most of the anemia in pregnancy is caused by iron deficiency. The coverage of Fe tablet administration in Indonesia is 69.14%, where 17% of pregnant women did not comply with Fe Tablets. One of the reason causing the low consumptions of Fe was the role of family and knowledge. The purpose of this study is to determine the knowledge of pregnant women about iron deficiency anemia and family role with compliance in consuming iron tablet in Health Center. This study is an analytic study with cross sectional study. In this study, the subjects were all pregnant women without look at the semester of pregnant and get a tablet Fe in Tanjungpinang Health Center based on data consist of 40 respondents. The result of this study shows that there is significant relationship between knowledge of pregnant women to iron deficiency anemia with compliance of consuming Tablet iron. The p-value of 0.814 shows that there is no correlation between knowledge of pregnant women about iron deficiency anemia and compliance of consuming Iron Tablets. Family role in monitoring the consumption of iron tablet with compliance consuming Iron was relationship between family roles in

monitoring drinking iron tablet with compliance consuming iron tablet. This study was recommended that further research on the role of the family as the keeper of consuming Fe tablets mothers.

***Keywords**: Pregnant Women, Iron Deficiency Anemia, Family Role, Iron Tablet Consumption*

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INTRODUCTION

Maternal Mortality Rate (MMR) is one of the indicators that is estimated to be difficult to achieve. This difficulty is felt not only in Indonesia but also in many developing countries in the world. Maternal mortality in Indonesia is still quite high compared to countries in Asia. The decline in maternal mortality and infant mortality in Indonesia is the target of health services that could not be delayed any longer. Indonesian Health Demographic Survey in 2007 mentioned that MMR i.e. 228/100,000 live births and Infant Mortality Rate (IMR) i.e. 34/1000 live births, while the target by the Minister of Health in the year of 2014 MMR as much as 118/100,000 live births and IMR as much as 24/1000 live births (1).

Maternal mortalities are caused by direct and indirect causes, a direct causes of maternal death such us complications of pregnancy, childbirth or the time of parturition, and any form of improper handling of these complications. While indirect causes of maternal deaths resulting from the disease that existed before the pregnancy and affect it e.g. malaria, anemia, HIV/AIDS, and cardiovascular disease. Globally 80% of maternal deaths are categorized as direct maternal death. The direct cause of this pattern is bleeding (2)**.**

According to World Health Organization (WHO), maternal mortality is the death during pregnancy or the period of 42 days after the end of pregnancy, due to all causes associated with or burdened by pregnancy or handling, but not caused by accident or injury(3). One of the causes of death in pregnant women is anemia, which can cause bleeding in pregnancy (4). Then one of the efforts to suppress the maternal mortality is to press the number of anemia gen in pregnant women.

According to WHO, 40% of maternal deaths in developing countries are associated with anemia in pregnancy. Most of the anemia in pregnancy is caused by iron deficiency and of acute bleeding even both are interacting(2). Anemia can worsen the condition of the woman during pregnancy, childbirth, and in the next period. This can cause abortion (miscarriage), premature birth (birth before its time), prolonged labor because the uterus does not contract, postpartum bleeding, shock, and infection during childbirth or immediately(5).

Medikoputra based on the theory of Manuaba stated that anemia can lead to more serious complications for the mother either in pregnancy, labor, and childbirth. Severe anemia with Hb less than 6 gr could result in decompensation cords. Whereas complications can occur in the results of conception of death, namely the results of conception, prenatal death, congenital defects, and less iron prematurity reserves, LBW. The cause of anemia in the society is generally due to iron deficiency that

can be solved by administering iron regularly and increased nutrition. Malnutrition or iron deficiency also encountered in the countryside, those kind of problems are usually occur in pregnant women with a low level of knowledge and economic status(6).

Many factors influence the incidence of anemia, one of the factors is an influential knowledge on Fe tablets consumption. Pregnant women who have a low level of knowledge will behave less obediently in consuming iron tablets. Instead of pregnant women who have good knowledge of iron consumption, tend to use rational consideration and more obedient to consume iron tablets(3).

Countermeasures of anemia on pregnant women through early examination of Hb in the early trimester for early diagnosis of anemia and give blood. Add at least 90 tablets during pregnancy and ensuring Fe tablets are given during visits and then consumed (7). To find out anemia from an early age, it takes the efforts of health workers through laboratory tests including examination of parasitic feces and infections. It is known that community efforts are to carry out examinations before pregnancy so that the health database of expectant mothers can be identified(6).

Iron deficiency anemia is a nutritional problem in the world. Estimates of anemia in the worldwide is approximately 51%. Anemia is more likely to occur in developing countries, than in developed countries. In developing countries anemia occurs in around 1400 million people from around 3800 million people or around 36%, while the percentage of anemia in developed countries is only about 8% or around 100 million people out of 1,200 million people.(4).

According to the Admin (2012), Indonesia is one of the countries with the largest number of pregnancy anemia sufferers. The program of granting Fe tablets to any pregnant women visiting the health service was in fact still unable to decrease the number of sufferers of pregnancy anemia significantly. Failure of the program is influenced by several factors including how to consume Fe tablets by those who comply, both in terms of time or way of consumption(8).

Based on the book Kepulauan Riau Health Profile in 2012, it shows data on Maternal Mortality Rates (MMR) for 2008 to 2012. In 2009 Maternal Mortality Rates increased 97.01% compared to 2008 at 81.62% and in 2010 experienced a high increase of 183, 46%, in 2011 the Maternal Mortality Rate decreased 109.20% and in 2012 the Maternal Mortality Rate reached 110.10%. This shows that maternal mortality in Kepulauan Riau is still relatively high and requires appropriate efforts to reduce it in the MDGs target(9).

Anemia in pregnant women increases the frequency of complications in pregnancy and childbirth. The impact of anemia on pregnancy varies, ranging from very mild complaints to the onset of pregnancy abnormalities (abortion, immature or premature labor), vaginal abnormalities (uterine inertia, uterine atony, labor), disruption during the birth process (in uterine involution, sub durability against infection and low milk production), and abnormalities of the fetus (abortion, disaturitas, microsomia, prenatal mortality, low birth weight, etc.) (10). In 2005 the World Health Organization (WHO) reported that the prevalence of anemia in pregnancy globally amounted to 55% and generally occur in the third trimester(11).

According to Adawiyani (2013), data the World Health Organization (WHO) in 2010 showed that 40% of maternal deaths in a developing country related to anemia in pregnancy. The average of anemia due to pregnancy in Asia estimated at 72.6%. While the prevalence of anemia of pregnant women in Indonesia was 70%, where 40% of it was iron deficiency anemia. The high prevalence of anemia in pregnant women is an issue that faced by the Government of Indonesia(8).

Pregnancy causes an increase in energy metabolism, because it requires energy and other nutrients to be increased during pregnancy. Increased energy and nutrients are needed for fetal growth and development, the amount of added value of organ contents, changes in the composition and metabolism of the mother's body. So the lack of certain nutrients needed during pregnancy can cause the fetus to grow imperfectly.

One of the nutrients that can increase the needs during pregnancy is iron. Iron during pregnancy is used for the development of the fetus, placenta, expansion of red blood cells, and basal to the needs of the body. The iron needed can be obtained from the food and iron tablets. However, like consumption of nutrients in general, consumption of iron often does not meet the body's needs. If the iron level in the body of a pregnant woman is low, then there will be a situation called anemia. It is because the iron is microelement which is essential for the body. These substances are especially needed in hemopoiesis (formation of blood) (12).

According to Health RI (2002) in the Niver (2002) factors which affect compliance of pregnant women consuming iron tablets include: knowledge, educational level and frequency of ANC inspection, but in reality not all expectant mothers who got Fe tablet consume it regularly, this can be caused due to ignorance of the importance of Fe tablet for their pregnancy. The resulting impact is poor absorption or body response to Fe, so there is no increase in Hb levels.

Anemia often occurs due to iron deficiency in pregnant women because of that there is a doubling of iron demand, as a result of increased blood volume without plasma volume expansion to meet the needs of the mother (to prevent blood loss at the time of giving birth) and fetal growth(10) .

The World Health Organization (WHO) stated that the prevalence of pregnant women with iron deficiency was around 35-75%, and increases with increasing gestational age. In Indonesia the prevalence of anemia in pregnancy is still high at around 40.1% (SKRT 2003). The administration of Fe tablets in Indonesia is 69.14%.

Based on the achievement of iron tablets in pregnant women in Kampung Bugis Health Center in providing coverage figures obtained from each village, namely Kelurahan Kota Tanjungpinang (27.5%), Kampung Bugis Village (68.6%), Senggarang Village (57.1%) and Penyengat (35.1%) based on coverage data on the provision of iron (Fe) tablets in pregnant women, the highest is in Kampung Bugis Village (68.6%), and the lowest is in Kota Tanjungpinang Village (27.5%).

Numerical data about the incidence of anemia in pregnant women in the health services of the city of Tanjung Pinang from January to December 2015, namely the Health Center of Tanjung Pinang (16.73%), Bugis Village Health Center (24.60%), Sei Jang Health Center (5, 57%), Kota Melayu Health Center (10.04%), then Batu Health Center (24.36%), Mekar Batu Baru Health Center (7.50%), Tanjung Unggat Health Center (1.26%). Based on the incidence of anemia in pregnant women in the city of Tanjung Pinang the highest incidence occurred in Tanjung Pinang Health Center (24.60%) and the lowest is in Tanjung Unggat Health Center (1.26%).

Based on the description of the background above, the researcher was interested in conducting research related to the phenomenon of of the distribution of iron (Fe) tablets problem to anemia incidence with the title "The Relationship of Pregnant Women Knowledge about Iron Deficiency Anemia and the Role of Family in Compliance in Consuming Fe Tablets in Health Center"

METHOD AND MATERIALS

This study is a quantitative research, analytical, with cross sectional study subjects all mothers who have antenatal and get a tablet Fe in Tanjungpinang Health Center based on data consist of 40 respondents with purposive sampling technics. This study was conduct on August 2016. The chi-square is used in this study to analyze the relationship of pregnant women knowledge about iron/Fe deficiency Anemia and Directly Observed Treatment (DOT) with Compliance in consuming Iron Tablets.

RESULTS AND DISCUSSION

Table 4.1. Characteristics of respondents based on their age, level of education, pregnancy, gestational age, and levels of Hb

The characteristics	n 40	%
Age :		
- < 20 years	3	7.5
- 20 – 35 years	32	80
- ≥ 36 years	5	12.5
Education level		
- No school	1	2.5
- Elementary school	16	40.0
- Junior high school	15	37.5
- Senior high school	7	17.5
- College	1	2.5
Pregnancy To		
- 1	12	30
- 2	15	37.5
- 3	8	20
- 4 – 6	5	12.5
Gestational Age :		
- 1 - 3 Month	1	2.5
- 3 – 6 Month	18	45.0
- 6 – 9 Month	21	52.5
The rate of Hb		
- ≥ 11gr%	26	65
- < 11gr%	14	35

Based on the data table above it can be concluded that the average age of respondents is between 20–35 years for 32 people of total 40 people (80%). For the educational level from 40 respondents, most of them are in elementary level of education as many as 16 people (40%), the majority of the respondent's pregnancy is pregnancy for the second child. From 40 respondents, 15 (37.5%) mothers are pregnant for the second child. Seen from a mother's gestational age including the pregnancy are not at risk although there are still 8 (12.5%) of respondents who are experiencing pregnancy for 4th up to 6th child of which are the 3 people (7.5%) pregnant for 4th child, 1 (2.5%) pregnant for 5th child and 1 people (2.5%) pregnant for 6th child. For the majority of the respondents of the gestational age at the age of 6–9 months as many as 21 people (52.5 %). Hb levels for a large part of the respondents as many as 26 respondents (65%) with Hb ≥ 11 gr% and 14 respondents with Hb ≤ 11 gr%.

For the compliance of mothers in consuming Iron Tablets can be seen in the following table.

Table 4.2. The compliance table of expectant mothers in consuming iron tablets

Characteristics	n= 40	%
Compliance of pregnant women consuming iron Tablets		
obey	29	72.5
disobey	11	27,5
Disobey reason		
lazy	5	45.5
bored	6	54.5

If seen from the table about the compliance of pregnant women in consuming iron tablets above, most of pregnant women as much as 29 (72.5%) already comply, but there are still 11 (27.5%) of pregnant women who are not obedient in consuming Fe tablets given by health officer with various reasons. That is 5 people (45.5%) are being lazy and 6 people (54.5%) are bored to consume iron tablets.

For the role of the family in monitoring the consumption of iron/Fe tablets can be seen as follows:

The most of expectant mothers are still need the role of the family in the process of comsuming iron tablets where 29 (72.5%) respondent need to be reminded by the family and there are 11 (27.5%) respondents that

Table 4.3 the role of the family in monitoring the consumption of iron tablets

Charakteristics	n= 40	%
The role of the family in monitoring the consumption of iron tablets		
any	29	72.5
none	11	27,5
Who monitors the consumption of iron tablet		
own initiative	22	55
Remind by husband, parents, inlaw	18	45

need not to be monitored by others or family in consuming iron/Fe tablet.

The following table shows the pregnant women knowledge about iron/Fe deficiency anemia:

Table 4.4. The table of knowledge of pregnant women about iron deficiency Anemia

Characteristics	N=40	%
Knowledge level		
- good	37	92.5
- less	3	7.5

For the level of knowledge about iron deficiency Anemia, from 40 respondents, there are 37 (92.5%) have good level of knowledge, but there are still 3 respondents (7.5%) who have low level of knowledge about iron deficiency Anemia.

The variables of this research are knowledge of pregnant women about iron/Fe deficiency anemia, Directly Observed Treatment (DOT) and compliance in consuming iron tablets in Kampung Bugis Health Centers. Those variables were tested using the Chi Square Test. Table 4.5 below explains about the correlation between knowledge of pregnant women about iron/Fe deficiency anemia, Directly Observed Treatment (DOT) and compliance in consuming iron tablets.

Based on table 4.5 above for the relationship between knowledge of pregnant women about iron/Fe deficiency anemia and the compliance

Table 4.5 The relationship of pregnant women knowledge about iron/Fe deficiency Anemia, Directly Observed Treatment (DOT) and Compliance in consuming Iron Tablets.

Variabel	Compliance to consume iron Tablets				*p*
	disobey		obey		
	n	%	n	%	
Knowledge of pregnant women about iron/Fe deficiency anemia					
less	1	2.5	2	5	0.814
good	10	25	27	67.5	
The role of the family in monitoring the consumption of iron tablets					
none	11	27.5	0	0	0.00
Any	0	0	29	72.5	

of consuming iron tablets showed that p-value 0.814 is greater than the value of α p-value of 0.05 indicates that there is no relationship between knowledge of pregnant women about iron/Fe deficiency anemia and the compliance of consuming iron tablets. The role of family in monitoring the consumption of iron tablets towards the compliance of consuming iron tablets indicates the p-value of 0.00 whic is smaller than the α value 0.05. This indicates that there is a connection between the roles of the family in monitoring the consumption of iron tablets with the compliance of consuming iron tablets.

DISCUSSION

Univariat Analysis

Respondents age between 20–35 years old as many as 32 respondents (80.5%) include those who have no risk in pregnancy or gestational age. The risks associated to pregnancy and childbirth process are very low which only around 15%. On the stage of this age, a woman already has maturity in terms of emotional, social aspects and the reproductive system. The ideal age to get pregnant and give birth. Health experts argue that even at the age of 24 years old is the culmination of a woman's fertility. On the data still there mother's

gestational age less than 20 years old as much as 3 people (7.5%) and above 35 years old as many as 5 people (12.5%) where the gestational age under 20 and above 35 are at risk of having problems during pregnancy. Teenage pregnancy at or under the age of 20 years old has higher health risks. This because the reproductive organs are not ready so that harm to pregnancy. The condition of the ovum at the age of adolescence is also rudimentary, so can interfere with fetal development. Teenage pregnancy also lead to high risk of experiencing high blood pressure on pregnant women, premature birth, low weight babies and feared women experiencing excess anxiety depression after childbirth. What should be feared is the risk of maternal death during childbirth due to bleeding and infection. Likewise, the opposite in pregnancies of women over 35 have several risks, including increasing the possibility of miscarriages, premature babies, babies with disabilities and chromosomal abnormalities, maternal health problems, diabetes pregnancies etc.

The education level of the respondents mostly elementary school as many as 16 people (40%) followed by 15 People (37.5%) in Junior High School level. The Respondents in Elementary And Junior High School are included in low levels of education that allows them do not understand the phenomenon of anemia when they are pregnant. Education levels also determine whether a person is easy to understand the knowledge specifically about the incidence of anemia in pregnant women due to the lack of intake of tablet Fe. The interests of the family sorely needed someone of his own education to make it more responsive and sensitive to the problems that could interfere with health and could take a decision as soon as possible. Mulyati researches (2007) mentioned that the knowledge possessed by the expectant mothers about health in pregnancy can help in caring for the health of the pregnant women themselves including in terms of the selection of the type of food consumed during pregnancy so that the inevitable risks that can result harm to the mother and baby.

As many as 5 respondents (12.5%) with ≥ 5 times of pregnancy (Grande multipara) are usually at risk of experiencing difficulity in pregnancy and childbirth. If the mother has iron deficiency anemic will be at risk of experiencing abnormalities of the fetus, rips the uterine wall due to slack on the uterine wall, prolonged labor, postpartum bleeding which increases the risk of death in the mother and fetus.

Viewed from the age of pregnancy most respondents are included in 3rd trimester, whereby if the mother experienced iron/Fe deficiency anemia will be at risk of causing a hindrance to the growth of the fetus either body cells or brain cells, miscarriage, the length of time since the delivery less thrust, uterine postpartum bleeding, vulnerable to infection, prone to cord decomposition in sufferers with Hb less than 4 gr %. Hypoxia due to iron/Fe deficiency anemia can cause shock even maternal death during childbirth, although not accompanied by bleeding, infant death in the womb, infant mortality at a very young age and disability, and anemia in babies born.

For the Hb levels of respondents, overall include normal i.e. ≥ 11 gr % as many as 26 people (65%), but there are still 14 respondents with Hb level is under 11 gr %. According to WHO, if the Hb levels of expectant mothers between 8 gr % up to 11 gr %, it is incuded in mild anemia. While if Hb levels of ≤ 8 gr %, it is classified as Anemic.

In term of controlling the consumption of iron tablets, most of the respondents as many as 22 people (55%) consume it by their own consciousness. This probably because the mother realized the importance of consuming iron tablets during pregnancy. While 18 of those respondents (45%) need help from nearby people

such husband or parents-in-law in consuming iron tablets, this probably because they yet feel it is important to consume iron tablets during the pregnancy process to prevent iron/Fe deficiency anemia during pregnancy. The role of the close people is urgently needed in the process of consuming iron tablets on pregnant women so that iron/Fe deficiency anemia does not occur during the process of pregnancy

Bivariat Analysis

Table 4.5 shows results of statistical tests for the relationship between knowledge of pregnant women about iron/Fe deficiency anemia and the compliance of consuming iron tablets showed the value of p, the p-value 0814 shows that there is no relationship between knowledge of pregnant women about iron/Fe deficiency anemia and the compliance of consuming iron tablets.

The level of knowledge about iron/Fe deficiency anemia does not influence the behavior in consuming iron tablets. This also in line with a study conducted by Sri (2006) in Bantul, that expectant mothers who have good knowledge about anemia yet able to encourage pregnant women to be more obedient to consume Fe tablets. But there is a trend that most expectant mothers who dutifully has a good knowledge about iron/Fe deficiency anemia. Although the level of knowledge of pregnant women about iron/Fe deficiency anemia is good, the level of consciousness to consume iron tablets can also caused by the boredom and laziness that caused the mother didn't finish the consumption of Iron/ Fe tablet given by health officers. In contrast to similar studies conducted by Phasouk Vongvichit (2003) in Vientiane Municipality, that there is a significant relationship between knowledge of pregnant women and compliance with the consumption of Fe tablets (p-value = 0.001)

It is also different with the research advanced by Mulyono (2002), that high level of knowledge is better than the low level of knowledge, with a high proportion of knowledge i.e. 41.7% compared to the 9.7% lower. Research by Subarda, et al (2011) explained that there is a significant relationship between the acquired knowledge and the compliance of the subject in consuming iron tablets (p = 0.005).

Knowledge is one of the factors that leads to achieving health behavior. When pregnant women know and understand about anemia and how to prevent anemia, they will have good health behaviors that can avoid the risk of anemia in pregnancy. Such health behavior reduces the incidence of anemia in pregnant women.

According to Simon, et al in Cikwi (2005), the domain knowledge is very important for the formation of one's actions. Based on experience and research it turns out that the actions realized by the knowledge will be more orderly than the actions of the unconscious by knowledge. Knowledge about nutrition can prevent someone from wrong food consumption. With a good level of knowledge, pregnant women can figure out food that could endanger their pregnancy and can choose things that support the quality of their pregnancy, including iron tablets distributed by clinics devoted to health during pregnancy. [13].

From the statistical tests using the chi-square test for the role of family in monitoring the consumption of iron tablets and the compliance of consuming iron tablets retrieved the p-value 0.00 which is smaller than the α value 0.05. Then there is the relationship between knowledge of pregnant women and the compliance of consuming Fe tablets. Efforts are being made with the role of family is to make it as an important factor that exists around the expectant mother by empowering family members especially parents, in-laws or husbands to help expectant mothers in the compliance of consuming iron tablets. The result of this research is in line with the research by Maisa (2010), that there is relationship between family support and the consumption of Fe tablets in pregnant women at the Clinic Nanggalo Padang city (p < 0.05). This

is a very important efforts that should be done for pregnant women, because they are individuals who do not standalone. They joined in a bond of marriage and living in a household where the factor of the closest person will influence the mindset and behavior including in treating her pregnancy. The husband is the one who is closest to pregnant woman who can create a physical and emotional environment that supports health and nutrition of pregnant woman.

Family support can be an influential factor in determining the beliefs and values of individuals' health as well as determine the treatment program they will received. The family also give support and make decisions in caring the sick members of family. The degree in which someone insulated from the mentoring of others, social isolation, negatively associated with compliance (Baekeland and Lundawall)

Besides the knowledge factor, the low number of pregnant women compliance in consuming iron tablets also influenced by other factors, such as forget, feared to have a heavy weight, less awareness regarding the importance of iron tablets, dizziness incurred after taking iron tablets. Some factors that influence the compliance of consuming iron tablet by expectant mothers are knowledge about anemia health care delivery, health, resistance to the use of iron tablets (tablet resistance), iron tablets side effects, and the health officer's behavior in disseminating the importance of iron tablets.

One of factors that cause the number of anemia iron deficiency still high in pregnant women is the lack of compliance of pregnant women in consuming iron tablets. As much as 74.16% of pregnant women were declared compliant in consuming iron tablets.[13] Research by Khatijah, et al. (2010) shows that pregnant women who consume fewer iron tablets or a tablet in a week have 12 times more risky of anemic during pregnancy compared with pregnant women who consuming iron tablets per day. Pregnant women who do not consume iron tablets during pregnancy are 1.9 times more at risk of having a baby with a low birth weight compared to pregnant women who consume iron tablets as much as 90 tablets or more.

CONCLUSION

1. The average age of respondents is between 20–35 years for 32 people of total 40 people (80%)
2. The educational level from 40 respondents, most of them are in elementary level of education as many as 16 people (40%)
3. The majority of the respondent's pregnancy is pregnancy for the second child. From 40 respondents, 15 (37.5%) mothers are pregnant for the second child. Seen from a mother's gestational age including the pregnancy are not at risk although there are still 8 (12.5%) of respondents who are experiencing pregnancy for 4th up to 6th child of which are the 3 people (7.5%) pregnant for 4th child, 1 (2.5%) pregnant for 5th child and 1 people (2.5%) pregnant for 6th child.
4. The majority of the respondents of the gestational age at the age of 6–9 months as many as 21 people (52.5 %)
5. Hb levels for a large part of the respondents as many as 26 respondents (65%) with Hb ≥ 11 gr % and 14 respondents with Hb ≤ 11 gr %.
6. There is no relationship between knowledge of pregnant women about iron/Fe deficiency anemia and the compliance of consuming iron tablets in Tanjungpinang Health Center
7. There is a significant relationship between the Directly Observed Treatment (DOT) and the compliance in consuming iron tablets in the working area of Tanjungpinang Health Center

SUGGESTIONS

1. Pregnant women are expected to consume Fe tablets regularly because consuming Fe

tablets can increase hemoglobin levels so that they do not suffer from anemia during pregnancy because it can endanger the fetus, causing low birth weight, birth defects etc.

2. Health officers should be able to give motivation to expectant mothers to regularly consume Fe tablet to reduce anemia.
3. Health officers can involve family members to supervise the consumption of medicines so that mothers can take Fe tablets regularly.
4. The need for further research on the role of the family as supervisor of pregnant women who take Fe tablets.

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