Contributions Knowledge of Nutrition and Dietary Restriction to Nutritional Status of Pregnant Women in Ogan Ilir, South Sumatera

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Abstract

Pregnant women are among one of the groups most vulnerable to suffer from malnutrition. Therefore, eating habits of pregnant women should have fitted with the reccomendation of nutrition, healthy, and well-balanced. Dietary restriction (taboo) based on religion is absolute for its believer meanwhile Dietary restriction which are not based on religion or belief can be modified or removed, if necessary. Not every dietary restriction is causing harm or had bad impact to health conditions. This study used observational analytic methods with cross-sectional approach, which is to study the population dynamics between risk factors and effects with observation approach or data collection approach at some point (point time approach). The study was conducted at Kabupaten Ogan Ilir, South Sumatra. The study is conducted from June to August 2014. After the analysis, the result showed that the majority of respondents were pregnant women aged 18-35 years. The majority of respondents also the mothers who did not have previous children. Most respondents are not anemic, with sufficient knowledge and do not have any dietary restrictions; there are 13 types of food restrictons were identified, with a variety of reasons, mostly related to the health of the mother and fetus; there is no significant relation between knowledge of nutrition and status of pregnant women; there is no significant relationship between dietry restriction with the nutritional status of pregnant women.

Keywords: pregnant women; eating prohibition; knowledge of nutrition

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1. Introduction

Qualified human resources are very important for the development of a nation. One of the factor that is required to produce qualified human being is to meet the nutritional intake. The gestation period is the period that determines the quality of human resource in the future, because the quality of the babies born very influenced by the state of the mother before and during pregnancy. If the nutrients received from his mother is not sufficient then the fetus will have consequences that are less profitable in the next life [1]. Malnutrition in pregnant women not only weakens the physical and mental of the mother, but also threaten the safety of the fetus [2].

Pregnant women are among one of the groups most vulnerable to suffer from malnutrition. Therefore, eating habits of pregnant women should have fitted with the reccomendation of nutrition, healthy, and well-balanced. Dietary restriction (taboo) based on religion is absolute for its believer meanwhile Dietary restriction which are not based on religion or belief can be modified or removed, if necessary. Not every dietary restriction is causing harm or had bad impact to health conditions. Abstinence or taboo is something that is passed down from ancestors through their parents, continue to the generations. Therefore this prohabition can't be known for sure when it began and what caused it [3].

Prohibition in food is mostly associated with emotion so most dietary restriction shared by the women and children who are still in the nurture. Dietary restriction which causes harm in food nutrition and health conditions should be abolished, dietary restriction which gives advantages in nutritional and health conditions should be strengthened and conserved, restrictions which has no obvious consequences on nutrition and health conditions can be left embraced by the people [3]. Dietary restrictions in Indonesia is still a problem because there are many foods that should be consumed, but still tabooed. The result of this dietary restrictions, pregnant women reduce their food intake and therefore contributes to nutritional status [3].

To determine whether there is a relationship between the knowledge of nutrition, dietary restriction and nutritional status of pregnant women, the researchers are interested in doing research with the title Contributions of knowledge of nutrition and dietary restriction towards the nutritional status of pregnant women in Ogan Ilir South Sumatra. The general objective of this study was to determine the relationship between the knowledge of nutrition, dietary restriction on the nutritional status of pregnant women in Ogan Ilir, South Sumatra.

2. Material and Method

Based on the purpose, this study included in the analytic observational study, which aims to examine the relationship of variables in natural conditions, without any manipulation of the variables studied, including the hypothesized relationship as causal. The design of the study is observational analytic method with cross sectional approach is research to study the population dynamics between risk factors and effects by means of observation or data collection approach as well at some point (point time approach). The study was conducted Ogan Ilir distric, South Sumatra, on June to August 2014.

The population of this study was all pregnant women who are in the Ogan Ilir district. Sample research is pregnant women with gestational age entered the third trimester, which is willing to be sample.Trimester III

were selected based on considerations at the time of red blood cells need the highest in the pregnant women. Sampling technique results obtained minimum sample size is 79 respondents. Primary data collection is done through direct interviews using questionnaires and observations. Types of primary data collected includes: Characteristics of the sample (age, education level, gestational age, and parity), Nutrition Knowledge, Nutritional Status in Biochemistry (Hb), Dietary restrictions and the reason. Secondary data as supporting data captured includes a general overview of the research location of study sites.

3. Results

3 1. Univariate Analysis

a) Characteristics of Respondents

There are 80 respondent who have individual characteristics and behaviors that could be gathered through interviews with the help of a questionnaire instrument. Description of the characteristics and behavior of respondents are presented in the table of frequency description below.

Table 1: Distribution Pregnancy Based on Individual Characteristics and Behavior

!	Category	N=80	%
Age	<18	3	3.8
	18-35	69	86.2
	>35	8	10
Total Children	0	31	38.8
	1	27	33.8
	2	7	8.8
	3	8	10
	4	3	3.8
	5	3	3.8
	7	1	1.2

Univariate analysis results on the table above shows that the majority of respondents were pregnant women aged 18-35 years. The majority of respondents also the mothers who did not have previous children.

b. Nutrition Knowledge

The results showed that most of the nutrition knowledge score of pregnant women included in the category are enough. Pregnant women with the level of knowledge of good nutrition and as much as 17.5% of pregnant women with knowledge of malnutrition as much as 32.5%. According to [3]; knowledge of nutrition is one of the causes that affect food consumption.

Table 2: Distribution Pregnancy Based Nutrition Knowledge Level

Variable	Category	N=80	%
Knowledge	Less	26	32.5
	Enough	40	50
	Good	14	17.5

c. Dietary Restriction

The results showed that the majority of pregnant women do not have any dietary restriction (71.2%) while the rest is as much as 28.8% have.

Table 3: Distribution Based Dietary Restriction

Variable	Category	N=80	%
Dietary Restriction	yes	23	28.8
	no	57	71.2

d. Description of dietary restriction

Obtained from the interview process these are various types of dietry restrictions on respondents, which summarized in the following table.

e. Nutritional Status

Maternal nutritional status before and during pregnancy affect fetal growth in the womb. If the status of poor maternal nutrition before and during pregnancy will cause some fatal consequences for the baby. As a result, among others, LBW, fetal brain growth retardation, anemia in the newborn, newborn baby is infected, abortion and others [4].

The results showed that the majority of pregnant women are not anemic (71.2%) and pregnant women are anemic at 28.8%. Iron needs of pregnant women increased in the second trimester of pregnancy and the period required 3.Pada trimester additional iron tablets although the food consumed has a lot of iron and high bioavailibilitasnya [5]. The same thing also expressed by [2] increasing gestation, the iron needed more and more.

Table 4: Dietary Restrictions on Maternal and Reason

No.	Dietary Restrictions	Reason
1.	Pineapple	Fear of disturbing the fetus, heat, suggestion midwife, fear of miscarriage, Peranakan not strong, twin blood, fear the baby will be born with a lot of fur.
2.	Any kind food contain soda	Fear of disturbing the fetus.
3.	Chicken	Do not like.
4.	Tape	The heat, the baby will be born with a large size.
5.	Salty Foods	Hypertension, not good for the reproductive system.
6.	Jackfruit	Twins blood.
7.	Sugar cane	Twins blood.
8.	Brown Sugar	Twins blood.
9.	Durian	Heat, fear of miscarriage, advice midwife.
10.	Sticky rice	Placenta sticky.
11.	Banana's hearth	Thick membranes (hard rupture of membranes), the size of the baby while in the womb and when it born has different size
12.	Jackfruit	Thick membranes (hard rupture of membranes)
13.	Jengkol	Vaginal / urine smell

Table 5: Distribution Pregnancy Based on Nutritional Status

Variable	Category	N=80	%
Nutritional status	Anemia	23	28.8
	Not Anemia	57	71.2

3.2 Bivariate Analysis

a) The relation between knowledge of nutrition and Nutritional Status

The results of the analysis of knowledge and nutritional status are presented in the following table.

Analysis of the relationship of knowledge to the nutritional status using Chi-Square generates PR for 0,900 to less knowledge and 1.055 for knowledge enough. This means that respondents with less knowledge had 10% lower risk of developing anemia than respondents with good knowledge and respondents who are knowledgeable enough to have 1,055 times greater risk suffering from anemia than respondents with good

knowledge. Figures 95% CI 0.216 to 3.752 for less knowledge shows 95% of researchers believe that in the wider population, lack of knowledge can be a protective factor or a risk factor for anemia in pregnant women. Figures 95% CI 0.273 to 4.073 to demonstrate sufficient knowledge of researchers 95% believe that in the population at large, enough knowledge can also be a protective factor or a risk factor for anemia in pregnant women. P value of 0.960, causing H0 is accepted so that it can be interpreted that there is no significant relationship between knowledge of nutrition and nutritional status of pregnant women.

Table 6: Results of the Knowledge Analysis Nutritional Status

Nutrition Knowledge	Nutritional Status				Total		P value	PR (95% CI)
	Anemia		not Anemia					
	n	%	n	%	N	%		
Less	8	30,8	18	69,2	26	100		0,900 (0,216-3,752)
Enough	11	27,5	29	72,5	40	100	0,960	
Good	4	28,6	10	71,2	14	100		1,055 (0,273-4,073)

b) The relations between dietary restriction and Nutritional Status

The results of the analysis of dietary restriction and nutritional status are presented in the following table.

Table 7: Results of Analysis Abstinence Eating Nutritional Status

Dietary restriction	Nutritional status				Total		P value	PR (95% CI)
	Anemia		Not Anemia					
	N	%	n	%	N	%		
Yes	9	24,3	28	75,7	37	100		0,747
No	14	32,6	29	67,4	43	100	0,466	(0,366-1,524)

Analysis of the relation between dietary restrictions with nutritional status using Chi-Square generate PR for 0,747. This means that respondents who do not have any restrictions to eat have a 25.3% lower risk of developing anemia than respondents who have restrictions to eat. Figures 95% CI 0.366 to 1.524 indicates 95% of researchers believe that in the population at large, restrictive eating can be a protective factor or a risk factor for anemia in pregnant women. P value of 0.466, causing H0 is accepted so that it can be interpreted that there is no significant relationship between dietary restrictions with the nutritional status of pregnant women.

4. Discussion

4.1 The relations between knowledge of nutrition with Nutritional Status

Knowledge is one of the three domains of behavior; in addition to attitudes and actions [6] the results of this study indicate that there is no relationship with the knowledge of the nutritional status of pregnant women. This is supported by the results [7] were also obtained results that there is no significant relationship between the knowledge of the nutritional status of pregnant women. However this is not in line with the results [8] who found correlation knowledge about nutrition of pregnant women with nutritional status of third trimester pregnant women. As already noted at the beginning of the paragraph, that knowledge is only one of the three domains of behavior. So it can be analogized that only holds one third of the role of knowledge in the domain of behavior. Knowledge is not the main factor that into component behavior. People who do not necessarily have a good knowledge of good behavior, of course, still needed a good attitude and good action and in line with the knowledge that the realization of good behavior. People, who have good knowledge, not necessarily practice what has been learned. This is often caused by the behavior of the disjointed knowledge. In this case, respondents were knowledgeable both just a small part, but the majority of respondents are not anemic. This is probably due to the action of the respondents in terms of nutrition has been good although knowledge is still in the poor category and pretty.

4.2 The relations between dietary restrictions with nutritional status

Dietary restriction is the prohibition of eating certain foods. Restrictions to eat are one of the elements of culture, which has an important role in every culture that determines what food could be eaten and should not be eaten [9]. This study obtain the result that there is no significant relationship between dietary restriction and nutritional status. This contrasts with the results of study of [7,10] that the dietary restriction (taboo) greatly affects the hemoglobin levels and nutritional status of pregnant women. According to the WHO in [6], there are several main reasons people behave. The main reasons are the knowledge, beliefs, attitudes, important people as references, resources, and culture (normal behavior, habits, values and use of resources in the community). Dietary restriction is part of the main reasons for confidence gained from the previous (grandparents, parents, etc.) Which was then believed without first scientifically proven. Although knowledge and refrain from eating plays into the principal reason for someone to behave (in this case is to behave nutrition), but the principal reasons that others also affect how much influence the knowledge and refrain from eating (trust) in the nutritional behavior of a person. In this case, the absence of a relationship between abstinence eating and knowledge of the nutritional status of pregnant women may be due to there are many other factors that have contributed to the determinant of the respondents in nutritional behavior. In this study, may influence the knowledge and restrictions to eat not too large compare to other factors. Perhaps attitudes, important people who become the reference (a model / example) for the respondent, the lack of sufficient resources for the conduct of good nutrition, and the strong cultural influence more dominant than knowledge and belief (refrain from eating).

5. Conclusions

1. The majority of respondents were pregnant women aged 18-35 years. The majority of respondents also the mothers who did not have previous children. Most respondents are not anemic, with sufficient knowledge and do not have any restrictions to eat;
2. There are 13 kinds of food taboos are dentified from respondents, for various reasons, mostly related

to the health of the mother and fetus;

3. There is no significant relationship between the knowledge of nutrition and the nutritional status of pregnant women;

4. There is no significant relationship between dietary restriction and the nutritional status of pregnant women.

Acknowledgements

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