Factors Related to Nutritional Status of Pregnant Women in the Working Area of Baiturrahman Health Center Banda Aceh

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Abstract

According to the 2012 Indonesian demographic and health survey (IDHS), based on data of PRAKARSA Policy showed that maternal mortality rate is 359 per 100,000 live births. Nutritional problems that are often faced by pregnant women are Chronic Energy Deficiency (CED) and nutritional anemia. According to the Indonesian Ministry of Health in 2013, the prevalence of CED pregnant women was 24.2%. Methods: This was a research survey with descriptive analytical and case control design. Population in this study were all pregnant woman in second and third semester. An 80 people chosen as a sample. Results: Showed that knowledge (P=0.015, OR=4.608), attitude (P=0.008, OR=7.933), family support (P=0.035, OR=3.857), family income level (p=0.598, OR=1.593). Multivariate analysis shows the most dominant variable related to nutritional status of pregnant women was attitude (OR = 8.576). So, there was correlation between knowledge, attitudes, and family support with nutritional status of pregnant women. While family income level is not a related with nutritional status of pregnant women. Attitude variables is a dominant risk factor of CED.

INTRODUCTION

Nutritional problems in developing countries, including Indonesia, still become a problem on primary public health. Such as maternal and child mortality case. High incidence of maternal mortality rates and weight of birth babies are also determined by the nutritional status of pregnant women. Pregnant women with poor nutritional status or CED tend to give birth to low birth weight babies, and has a greater risk of death compared to babies born to mothers with normal weight (Ferial, 2011, Abdel et al., 2013).

According to the 2012 Demographic and Health Survey (IDHS), in PRAKARSA Policy Update the maternal mortality rate was 359 per 100,000 live births. The maternal mortality rate in Central Java Province in 2013 based on reports from the Regency / City of 116.34 / 100,000 live births, increased when compared to maternal mortality number in 2010 amounted to 116.01 / 100,000 live births (Central Java Health Office, 2013).

According to the data of total pregnant number from 2015 Aceh Province Health Profile, the total number of pregnant women for 23 districts /...
RESULTS AND DISCUSSION

Based on interviews with 10 pregnant women in the Baiturrahman Community Health Center work area, 3 people (30%) of pregnant women who had arm circumference under 23.5 cm and 7 people (70%) had arm circumference above 23.5 cm. From the 10 people, 8 people (80%) admitted that they were unaware of the nutrition of pregnant women and 2 people (20%) had good knowledge about nutrition.

Based on Table 2, the relationship between knowledge and nutritional status of pregnant women can be explained from 27 respondents. From 27 respondents, respondents who had CED and low knowledge (37.0%) are greater than 53 respondents who had CED and high knowledge (11.3%). The results of the statistic obtained a p-value = 0.015. This means that, there was a significant relationship between knowledge with nutritional status of pregnant women in the Baiturrahman Health Center Banda Aceh. It can be evidenced by OR = 4.608. This shows, that respondents with low knowledge had 4 times chance of having a risk of CED compared to those with high knowledge.

METHODS

Research type of this study is a survey (descriptive analytic) with case control study design. Sampling technique was performed by using purposive simple random sampling, with an independent variables and a dependent variable criterias. The population in this study were all second trimester and third trimester pregnant women who were in the Baiturrahman Community Health Center work area in June 2018. 80 people chosen as a sample. The data was collected from June 8 to August 9th, 2018.

Data was collected by trained enumerator. This research used questionnaire as instrument. Collected data was analyzed using chi square with CI (95%).

Table 1. Frequency distribution of nutritional status of pregnant women based on knowledge, attitudes, family support and family income level

| Variable                          | Frequency | Percentage (%) |
|-----------------------------------|-----------|----------------|
| **Nutritional Status of Pregnant Women** |           |                |
| CED                               | 16        | 20.0           |
| Normal                            | 64        | 80.0           |
| **Knowledge**                     |           |                |
| Low                               | 27        | 33.8           |
| High                              | 53        | 66.3           |
| **Attitudes**                     |           |                |
| Negative                          | 44        | 55.0           |
| Positive                          | 36        | 45.0           |
| **Family support**                |           |                |
| Not Support                       | 25        | 31.3           |
| Support                           | 55        | 68.8           |
| **Family income level**           |           |                |
| Low                               | 28        | 35.0           |
| High                              | 52        | 65.0           |

Table 2. Knowledge and Nutritional Status of Pregnant Women in Baiturrahman Community Health Center Banda Aceh

| Knowledge | Nutritional Status Pregnant Women | Total | p value | OR       |
|-----------|----------------------------------|-------|---------|----------|
|           | CED | Not CED | n | % | n | % | N | % |         |
| Low       | 10  | 17      | 37.0 | 63.0 | 27 | 100 |      | 0.015 | 4.608 (1.453-14.613) |
| Height    | 6   | 47      | 11.3 | 88.7 | 53 | 100 |      |        |
The result of this study is accordance with Zerfu et al. (2018) that showed limited knowledge in pregnant mothers significantly related to poor dietary diversity practices which influenced nutritional status.

Efforts to increase knowledge among pregnant women about nutrition during pregnancy, can be performed by providing education. Education about nutrition, carried out for the wider community and families. But the problem in this case, there is differences in knowledge between people in an area and other communities (Telatar et al., 2009; Abdel et al., 2013; Trihardiani, 2011).

Knowledge is one of the factors, associated with the nutritional status of pregnant women. Because, a good mother’s knowledge will affect the mother’s dietary habits everyday. So that, the mother can manage her diet during pregnancy and not rejecting food during pregnancy. Thus, the nutritional status during pregnancy, can be fulfilled properly. In this study, it was found that mothers with normal nutritional status is mothers that have a good knowledge. This was due to mothers who have a good nutritional status often obtained information from health workers and carried out what was they recommended. So that, pregnant women will not have a malnutrition (Black et al., 2013; Martorell & Zongrone, 2012; McNulty et al., 2013; Rahman et al., 2016).

Based on Table 3, the relationship between attitudes and nutritional status of pregnant women can be explained from 44 respondents. Respondents who had negative attitudes and had CED (31.8%) were greater than 36 respondents who had a positive attitude and had CED (5.6%).

The result of the data analysis, obtained p-value = 0.008. This means, that there was a significant relationship between attitudes and nutritional status of pregnant women in the Baiturrahman Health Center Banda Aceh. It was proven by finding the value OR = 7.933. It means that, respondents with negative attitudes had 7 times risk of having a CED, compared to the respondents with positive attitude.

The result of this study is in accordance with the study of Palimbo (2014) which shows that there was a relationship between the attitude of pregnant women with the incidence of CED (p-value = 0.000). This means that there was a very significant relationship with the nutritional status of pregnant women.

The negative attitude of pregnant women about the incidence of CED is caused by various factors, both internal and external factors of a mother. This is in accordance with the theory from Azwar (2013) which stated there are two factors that influence attitudes. One of them is individual internal factors. Individual internal factors consist of: institutions or religion, culture, environment, mass media, other people who are considered important, and situations (Rahman et al., 2016; Palimbo, 2014; Azwar, 2013).

The attitude of a pregnant woman greatly give influences for the nutritional status. Because nutrition during pregnancy must always be considered. Therefore, mothers who have negative nutritional status, have a greater chance than those who are positive. Because a malnutrition in pregnant women will have an effect on babies who will be born (Paola & Rosa, 2017; Palimbo et al., 2014, Azwar, 2013).

Based on Table 4, relationship between famil-
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variety of foods. According to Angel’s Law, stated if the income level increases, then expenditure on food will increase (Rahman et al., 2016; Telatar et al., 2009; Trihardiani, 2011; Black et al., 2013).

So that, low income people will be vulnerable to CED, whereas high income people will not have CED. Because people who have high income, will complete the food that they have to consume. For the example is consuming folic acid, to fulfill the food supplement during pregnancy (McNulty et al., 2013; Simpson et al., 2011; Rahman et al., 2016, Simpson et al., 2012).

CONCLUSION

Based on the results of the study it can be concluded that there was a significant relationship between knowledge, attitudes, family support and nutritional status of pregnant women in the Baiturrahman Health Center Banda Aceh. While, there was no significant relationship between family income level and nutritional status of pregnant women in Baiturrahman Health Center Banda Aceh Working Area.

It is hoped that it can provide better counseling on how to consume food during pregnancy and can decrease MMR (Maternal Mortality Rate) also IMR (Infant Mortality Rate) in the future.

ACKNOLEDGEMENT

This research was funded by Ministry of Research, Technology and Higher Education.

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| Family Income Level | Nutritional Status Pregnant Women | Total | p value | OR |
|---------------------|---------------------------------|-------|---------|----|
|                     | CED n  | %   | Not CED n | % | n | %  |     |      |
| Low                 | 7       | 25.0 | 21       | 75.0 | 28 | 100 | 0.598 | 1.593 (0.521-4.867) |
| High                | 9       | 17.3 | 43       | 82.7 | 52 | 100 |        |         |

In accordance with Badriah’s theory (2011) stated that income is closely related with decreasing of the level of food safety and the occurrence of malnutrition. According to national health survey data for 2008 and 2009, spending on food for poor families ranges from 60-80% of income and for prosperous families ranges from 0-59% of income. Based on Benner’s law, the increased revenue, the quality of food consumption will also increase. Increased income can also encourage someone to consume a variety of foods. According to Angel’s Law, stated if the income level increases, then expenditure on food will increase (Rahman et al., 2016; Telatar et al., 2009; Trihardiani, 2011; Black et al., 2013).

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