RELATIONSHIP OF FAMILY ECONOMIC STATUS WITH CHRONIC ENERGY DEFICIENCY IN PREGNANT WOMEN IN JETIS COMMUNITY HEALTH CENTER, YOGYAKARTA

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ABSTRACT

Background: Four nutritional problems are still major health problem in Indonesia, namely Chronic Energy Deficiency (KEK), Iron Nutritional Anemia (AGB), Disorders Due to Iodine Deficiency (IDD), and Vitamin A Deficiency (KVA). This study aimed to determine the relationship of family economic status with chronic energy deficiency in pregnant women in Jetis community health center, Yogyakarta.
Subjects and Method: This was a cross sectional study conducted at Jetis community health center, Yogyakarta. A sample of 73 was selected by Accidental Sampling. The data were collected by questionnaire and analyzed by Chi Square.
Results: The incidence of chronic energy deficiency with low-income families (71.2%), and in the middle economic status the incidence of chronic energy deficiency in pregnant women (92.6%). It was statistically significant (p< 0.001)
Conclusion: There is a relationship between families' economic status and the incidence of chronic energy deficiency (CED) among pregnant women visiting Community Health Center of Jetis, Yogyakarta.

Keywords: economic status, incidence of chronic energy deficiency (CED), pregnant women.

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BACKGROUND

Malnutrition is the leading cause of maternal and child mortality indirectly. Four nutritional problems are still a significant health problem in Indonesia, namely Chronic Energy Deficiency (KEK), Iron Nutritional Anemia (AGB), Disorders Due to Iodine Deficiency (IDD), and Vitamin A Deficiency (KVA) (Kemenkes RI. 2015).

A low economy affects nutrition in pregnancies with inadequate nutrition, which will give birth to more babies who are not perfect or even babies resulting in death (Suryati, 2011). The percentage of pregnant women in Indonesia who consume energy below 70% and the nutritional adequacy rate (RDA) is 44.8% (Kemneks RI, 2013). Meanwhile, in the Special Region of Yogyakarta (DIY), the prevalence of chronic energy deficiency in pregnant women (KEK) has decreased. Still, the regencies or cities show that the DIY average figure is 9.11%. The highest KEK incidence rate was Yogyakarta City, reaching 14.1%, and the lowest KEK rate was Sleman getting 6.16% (Ministry of Health RI, 2016).

Yogyakarta City has the lowest poverty rate, namely 8.67% and the highest poverty rate is Gunung Kidul, which is 20.83% (BPS DIY, 2015). Based on interviews with 10 pregnant women, 8 pregnant women had income according to the Regional Minimum Wage (UMR), and out of 8 pregnant women,

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2 people were KEK. Meanwhile, 2 pregnant women have income> UMR, which is classified as no KEK.

SUBJECTS AND METHOD

1. Study Design

This type of research is quantitative, using analytical methods and using approach *cross-sectional.*

2. Population and Sample

The population of the trimester I, II and III pregnant women who visited and had their pregnancy checked at Puskesmas Jetis Yogyakarta City during the three months of October - December 2017, amounting to 267 people.

The number of samples of 73 pregnant women who were taken by accidental sampling.

3. Study Variable

Inclusion Criteria are pregnant women who have their pregnancy checked at Puskesmas Jetis Yogyakarta City and are willing to become respondents. The exclusion criteria were pregnant women who refused to be respondents.

4. Operational Definition of Study

Economic status is the ability of a family to meet daily needs, seen from the family income, namely the wife and husband, which can be seen through the regional minimum wage (UMR), which is differentiated: upper economy (monthly income> Rp.2,900,000), middle economy (monthly income Rp. 2,900,000 - Rp. 1,450,000), lower economy: (monthly income Rp. <1,450,000).

Chronic energy deficiency (KEK) is the result of measuring nutritional status by measuring upper circumference (LILA), not SEZ if LILA: ≥23.5cm and KEK if LILA: <23.5cm

5. Data Analysis

Univariate analysis and bivariate analysis with Chi-Square

6. Research Ethics

This research has received ethical clearance from the Ethical Commission of the Faculty of Health Sciences, Respati University Yogyakarta Number: 456.4 / FIKES / PL / IV / 2017.

RESULTS

1. Sample Characteristics

Table 1 shows that most pregnant women aged 20-35 years (79.5%) and low economic status (42.5%).

2. Relationship between family economic status and incidence of KEK

The crosstab results are shown in Table 2 by combining the upper economic status (because there is a value of 0) with the middle financial status. The results show that low economic status (26.0%) tends to have a higher percentage of SEZ events than middle-income economies (2.7%), and the difference is statistically significant (p <0.001). The majority of respondents did not experience KEK (71.2%).

Table 1. Sample Characteristic

Characteristics	Category	Frequency	Percentage (%)
Age	> 20 years	7	9.6
	20-35 years	58	79.5
	> 35 years	8	11.0
Economic status of family	Upper economy	15	20.5
	Middle economy	27	37.0
	Lower economy	31	42.5

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Incidence of SEZ	No KEK	52	71.2
	KEK	21	28.8

Table 2. Relationship between family economic status and incidence of KEK

Variable	Occurrence of KEK						OR	p
	Not KEK		KEK		Total			
	n	%	n	%	N	%		
Economic Status								
Middle	40	54.8	2	2.7	42	57.5	31.67	<0.001
Lower	12	16.5	19	26.0	31	42.5		
Total	52	71.2	21	26.7	73	100		

DISCUSSION

1. Sample Characteristic

The majority of pregnant women in the age range of 20-35 years (79.5%) have the next age> 35 (11%) years and <20 years (9.6%) years. The younger or older a mother who is pregnant will affect the nutritional needs needed. Young people require a lot of additional nutrition because they are used for each other growth and development and must share with the fetus they are carrying. Meanwhile, old age needs a lot of energy because the organ function is getting weaker, and it is required to work optimally to support an ongoing pregnancy (Maryam, 2016).

The analysis results using the *chi-square* obtained a *p-value* of 0.001 and an odds ratio of 31,667. The *p-value is* 0.001 <0.050. This indicates a relationship between the family's economic status and the incidence of KEK in pregnant women visiting the Jetis Health Center, Yogyakarta City.

2. Family Economic

The economic status of the majority family, is medium (57.5%). The financial status of the family is seen from the income of the husband and wife. Family income reflects the condition of the family's economic capacity, which will affect health services. The economy is also always a determining factor in the pregnancy process to have regular pregnancy checkups. Financial status does not directly affect the level of education.

Low economic status tends to be difficult to access education so that the level of education will below. This will impact insufficient mindset and access to information, especially regarding health, including how to carry out good pregnancy care (Suryati, 2011).

The economic status will also shape the family lifestyle. Adequate family income will show the child's growth because parents can provide for the needs of both primary and secondary children (Suryati, 2011). The economic situation of a family describes the family's ability to meet the needs of the day - the day, including in the areas of health, a variable that can be used is the family income with the Minimum Wage (UMR) (Supariasa et al., 2011)

3. Genesis KEK

Results of this study the majority of women do not experience KEK (71.2%). The average incidence rate of KEK DIY was 9.11%, and the incidence rate of Yogyakarta KEK was 14.1%. However, some mothers experienced

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KEK (28.8%). This figure is still high above the DIY average of 9.11% (Ministry of Health, 2016).

Malnutrition in pregnant women causes malnutrition in the fetus and impacts acute malnutrition. Babies with LBW status have a high risk of death due to the unpreparedness of the organs in the fetus to function when the fetus is outside the uterus. Pregnant women who are not at risk for KEK are still advised to maintain their health condition, and if pregnant, they are advised to carry out pregnancy checks to health personnel (Fatonah, 2016).

Efforts currently underway to reduce the incidence of KEK in pregnant women at the Yogyakarta City Health Center are by providing additional food (PMT) for pregnant women, nutritional counseling for pregnant women and prospective brides. (Ministry of Health, 2015).

4. Relationship between Economic Status and Occurrence of KEK

The results of the Chi-Square Test analysis obtained a p-value of 0.001. The *p-value of* 0.001 <0.050 shows a relationship between the economic status of the family and the incidence of KEK in pregnant women who visit Puskesmas Jetis Yogyakarta City. This study's results are supported by Sihalolo (2013) and Maulana (2015), which concluded that there is a relationship between economic status and nutritional status of pregnant women.

This shows that economic status has an impact on the nutrition of pregnant women. This impact is both positive and negative on pregnancy. Nutrition can affect pregnancy, a pregnant woman needs adequate nutrition for herself and the baby she is carrying so that nutritional needs are higher than before pregnancy (Fatonah, 2016).

Respondents who have middle economic status who experience KEK are 2.7%. This is influenced by other factors such as the respondent's eating habits and the mother's lack of knowledge about nutrition knowledge in food (Suryati, 2011). Respondents with lower economic status, some pregnant women did not experience KEK as much as 16.5%. The community and society are very supportive of supporting the establishment of a healthy pregnancy. Good environmental conditions, the family's role that supports pregnancy, and the lifestyle of pregnant women (Suryati, 2011).

The fulfillment of nutrients is essential during pregnancy. It can be obtained from food consumed by mothers such as rice, vegetables, fruit, vegetable and animal side dishes, and additional supplements to meet these needs. Nutrient rich food needs will be fulfilled if the family's purchasing power is high, the purchasing power can be affected by the family's economic condition (Maryam, 2016).

This study indicates that most pregnant women who visited the Jetis Health Center in Yogyakarta City had low economic status. The incidence of KEK mostly occurs in pregnant women with lower financial status. There is a relationship between the familys economic status and the incidence of KEK in pregnant women who visit the Jetis Health Center, Yogyakarta City.

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