

The relationship between Parity and the Occurrence of Chronic Energy Deficiency (CED) in pregnant women

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ABSTRACT

Background: Pregnancy is an early process of life. Lack of energy intake from macronutrients and micronutrients results in chronic energy deficiency (CED) during pregnancy. The high prevalence of pregnant women with nutritional problems can have an impact on the health and safety of mothers and babies as well as the quality of babies born. Factors that cause pregnant women to experience CED is due to the consumption of less nutrients. However, increasing the incidence of CED in pregnancy can also be influenced by various factors, including infection factors, economic status, age, pregnancy distance, parity, knowledge, education level, employment status, and health services. The purpose of this study was to determine the relationship between parity and the occurrence of CED in pregnant women. Methods: The research of this study is an analytic cross-sectional design. The population of this study were pregnant women in the working area of the Ganjar Agung Public Health Center, Metro City. The Analysis using chi square test. Results: high risk parity found in 13 (12.0%) people and in. While the low risk parity found was 95 (88.0%). The results of the analysis of the different proportions test (Fisher's exact test) obtained a value of $p = 0.030$ ($p < 0.05$); OR: 3.829 (CI; 95% 1.152-12.727), meaning that there is a relationship between parity and the incidence of CED in pregnant women where pregnant women who are at high risk parity (>4 children) have a 3,829 times.

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1. INTRODUCTION

Pregnancy is an early life process. Lack of energy intake from macronutrients and micronutrients results in chronic energy deficiency (CED) during pregnancy. (Kemenkes RI, 2015). Pregnant women who experience CED are mothers who suffer from food shortages that last a long time and continuously, resulting in the emergence of health problems in the mother so that the nutritional needs of pregnant women were increasing and not being fulfilled, resulting in the emergence of health problems in the mother so that the nutritional needs of pregnant women were not sufficient. (Sandra, 2018). The problems of pregnant women with CED almost occurs in all parts of Indonesia, including the Metro City of Lampung Province where in 2018 there were 1,514 cases of CED (7.68%) of 19,717 pregnant women (Dinkes Kota Metro, 2019).

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The high prevalence of pregnant women with nutritional problems can have an impact on the health and safety of mothers and babies as well as the quality of babies born. Pregnant women with CED have the risk of decreased muscle strength which is usually used to assist the birth process, so that it can cause prolonged parturition, bleeding after birth and maternal death. In infants, the risks that can occur are fetal death, premature birth, birth defects, low birth weight, infant mortality, growth and development disorders (stunting) and disorders of the brain and metabolism. (Kemenkes RI, 2015). The factor that causes pregnant women to experience CED was due to the consumption of less nutrients. However, increasing the incidence of CED in pregnancy can also be influenced by various factors, including infection factors, economic status, age, pregnancy distance, parity, knowledge, education level, employment status, and health services. Research conducted by Sumini (2017) states that there is a parity relationship with the incidence of chronic energy deficiency (CED) in BPM Ny. "A". Desa Gombang Kecamatan Slahung Kabupaten Ponorogo. Research conducted by Syakur (2020) states that there is a relationship between age, education, parity, knowledge and frequency of eating on the incidence of chronic energy deficiency in pregnant women in the working area of the Maccini Sombala Health Center, Tamalete District, Kota Makassar. Based on the description above, the authors are interested in conducting research on "The relationship of parity with the occurrence of chronic energy deficiency of CED in pregnant women in the Ganjar Agung Public Health Center in Metro City.

2. METHODS

This type of research uses analytic study, cross sectional design. The population in this study were pregnant women in the working area of the Ganjar Agung Health Center. The minimum sample in the case group was 36 people and the sample used was 108 people. The sampling technique used was simple random sampling. Analysis using chi square test.

3. RESULTS AND DISCUSSION

Based on the results of data collection and analysis, the Parity frequency distribution is obtained as follows:

Table 1
 Distribution of the Parity Frequency of Pregnant Women in the Working Area of the Ganjar Agung Health Center. West Metro

No	Variable	F	%
1	Parity		
	High Risk (>3)	13	12,0
	Low Risk (≤3)	95	88,0
	Amount	108	100,0

Based on the table above, it can be explained that of the 108 respondents, most of them were at low risk parity, namely 95 (88.0%) people and as many as 13 (12.0%) people were in high risk parity.

Table 2
 The relationship between parity and the occurrence of CED in pregnant women in the working area of the Ganjar Agung Health Center, West Metro

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Parity	P		OR (95% CI)
	%		
High risk	12,0	0,030	3,829 (1,152-12,727)
Low risk	88,0		
Amount	100		

The results of the bivariate analysis above show that high risk parity was found in as many as 13 (12.0%) people and in. While the low risk parity found in as many as 95 (88.0%). The results of the analysis of the different proportions test (Fisher's exact test) obtained a value of $p = 0.030$ ($p < 0.05$); OR: 3.829 (CI; 95% 1.152-12.727), meaning that statistically it is believed that there is a relationship between parity and the incidence of CED in pregnant women where pregnant women who are at high risk parity (>4 children) have a 3.829 times greater risk of experiencing CED compared to pregnant women who are at low risk parity.

discussion

Parity Frequency Distribution of Pregnant Women

The results of data collection and processing found that of the 108 respondents, most of them were at low risk parity, as many as 95 (88.0%) people and as many as 13 (12.0%) people were at low risk parity. Parity is the number of children born both alive and dead. The number of children born is one of the factors that can affect the health condition of pregnant women, including the fetus in womb. Families that have too many children have an impact on the family's ability to meet nutritional intake in the family. Women who give birth frequently will also increase the risk of health problems. During pregnancy, the mother's uterus is stretched by the fetus. If you give birth too often, the uterus will get weaker. If the mother has given birth to 3 or more children, it is necessary to watch out for disturbances during pregnancy, childbirth and postpartum (Kemenkes RI, 2017).

Relationship of Parity with Occurrence of CED in Pregnant Women

A mother who often gives birth can experience various health problems during her pregnancy. Based on the results of the study showed that the high-risk parity found in the case group was 8 (22.2%) people, while the low risk parity found in the case group was 28 (77.8%) people. The results of the analysis obtained p value = 0.030 ($p < 0.05$); OR: 3.829 (CI; 95% 1.152-12.727), meaning that statistically it is believed that there is a relationship between parity and the incidence of CED in pregnant women where pregnant women who are at high risk parity (>4 children) have a 3.829 times greater risk of experiencing CED compared to pregnant women who are at low risk parity.

CED in pregnancy is a health problem that deserves special attention. Pregnant women who experience CED can experience impaired muscle strength that helps the delivery process so that it can lead to prolonged parturition and postpartum haemorrhage, even maternal death (Kemenkes RI, 2015). The direct causes of CED pregnant women are insufficient nutritional consumption and the presence of disease (Simbolon, Jumiyati, & Rahmadi, 2018). On the other hand, parity can also be a risk factor for the occurrence of CED in pregnancy. Parity is the status of a woman in relation to the number of children ever born. Parity which is included in the high-risk factor in pregnancy is Grande multipara, where this can lead to conditions that affect the optimization of the mother and fetus in the pregnancy at hand. This is in line with research conducted by Dharma, (2019) that parity has been shown to be associated with the incidence of CED in pregnant women. The results of this study found that the risk of CED was 10 times more in mothers who had high parity.

Based on the description of the results of the study above, it can be explained that parity is one of the risk factors for the occurrence of CED in pregnancy, in this study mothers who are in parity more

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than 4 children are at risk of experiencing CED 3.8 times greater than mothers who have parity less than 4 children. This can happen because during pregnancy, the health and growth of the fetus is greatly influenced by what the mother eats, as well as the condition of the mother's health during pregnancy and in preparation for childbirth and breastfeeding. Nutritious food intake itself is influenced by various factors including knowledge in choosing food and the ability to buy nutritious food. In families who have too many children, the economic needs of the family will increase so that it will have an impact on decreasing the ability to buy nutritious food needed by pregnant women. On the other hand, mothers who give birth too often will decrease their health condition so that they are vulnerable to various health problems which in turn have an impact on the occurrence of CED in pregnancy.

4. CONCLUSION

Based on the results of the analysis, it can be concluded that the data on pregnant women, which amounted to 108 respondents, were mostly at low risk parity, as many as 95 (88.0%) people and as many as 13 (12.0%) people at low risk parity. The results of the analysis showed that there was a relationship between parity ($p = 0.030$) and the incidence of CED in pregnant women where pregnant women who were at high risk parity (>4 children) had a 3.829 times greater risk of experiencing CED compared to pregnant women who were at low risk parity.

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