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THE RELATIONSHIP OF CHRONIC ENERGY DEFICIENCY (CED) IN PREGNANT WOMEN WITH THE INCIDENT OF LOW BIRTH WEIGHT

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ABSTRAK : HUBUNGAN KURANG ENERGI KRONIS (KEK) PADA IBU HAMIL DENGAN KEJADIAN BERAT BAYI LAHIR RENDAH (BBLR)

Latar Belakang : Anemia dalam kehamilan merupakan masalah nasional karena mencerminkan nilai kesejahteraan ekonomi masyarakat. Target global SDG's (Sustainable Development Goals) adalah menurunkan AKI menjadi 70 per 100.000 KH. Tujuan penelitian ini adalah untuk mengetahui hubungan Kurang Energi Kronis (KEK) pada ibu hamil dengan kejadian Berat Bayi Lahir Rendah (BBLR) di RSUD Abdoel Moeloek

Tujuan : tujuan kegiatan yaitu untuk mengetahui hubungan kurang energi kronis (KEK) pada ibu hamil dengan kejadian berat bayi lahir rendah (BBLR)

Metode : Metode penelitian ini menggunakan metode penelitian deskriptif korelatif dengan pendekatan cross sectional jumlah sampel sebanyak 66 orang. Sampel pada penelitian ini adalah diperoleh dengan menggunakan teknik total sampling.

Hasil : Diketahui bahwa lebih dari setengahnya responden tidak mengalami kejadian KEK sebanyak 35 orang (53%), diketahui bahwa lebih dari setengahnya responden mengalami kejadian BBLR sebanyak 41 orang (62,1%), berdasarkan hasil uji statistik *Chi Square*, diketahui bahwa nilai P sebesar 0,000 lebih kecil dari nilai α (0,05), sehingga dapat disimpulkan bahwa terdapat hubungan antara kejadian KEK dengan kejadian BBLR.

Kesimpulan :

Saran : Diharapkan petugas kesehatan khususnya bidan agar lebih meningkatkan konseling dalam pelayanan kesehatan kepada ibu hamil sehingga ibu hamil dapat memperoleh informasi yang cukup tentang gizi terutama agar ibu tidak terkena Kurang Energi Kronis.

Kata Kunci: Kekurangan Energi Kronis, Bayi Baru Lahir Rendah, deskriptif korelatif.

ABSTRACT

Background: Anemia in pregnancy is a national problem because it reflects the value of society's economic welfare. The SDG's (Sustainable Development Goals) global target is to reduce the MMR to 70 per 100,000 KH. The aim of this study was to determine the relationship between Chronic Energy Deficiency (KEK) in pregnant women and the incidence of Low Birth Weight (LBW) at Abdoel Moeloek Regional Hospital.

Objective: untuk mengetahui hubungan Kurang Energi Kronis (KEK) pada ibu hamil dengan kejadian Berat Bayi Lahir Rendah (BBLR) di RSUD Abdoel Moeloek

Method: This research method uses a correlative descriptive research method with a cross sectional approach with a sample size of 66 people. The sample in this research was obtained using total sampling techniques.

Results: It is known that more than half of the respondents did not experience the incidence of CED, 35 people (53%), it is known that more than half of the respondents experienced the incidence of LBW, 41 people (62.1%), based on the results of the Chi Square statistical test, it is known that the value P of 0.000 is smaller than the α value (0.05), so it can be concluded that there is a relationship between the incidence of KEK and the incidence of LBW

Conclusion : It is known that more than half of the respondents did not experience a KEK incident, 35 people (53%). It is known that more than half of the respondents experienced LBW incidents, 41 people (62.1%). Based on the results of the Chi Square statistical test, it is known that the P value of 0.000 is smaller than the α value (0.05), so it can be concluded that there is a relationship between the incidence of KEK and the incidence of LBW.

Suggestion : It is hoped that health workers, especially midwives, will further improve counseling in health services to pregnant women so that pregnant women can obtain sufficient information about nutrition, especially so that mothers are not affected by Chronic Energy Deficiency.

Keywords : Chronic Energy Deficiency, Low Newborn Infants, correlative descriptive.

INTRODUCTION

Globally, the prevalence of anemia in pregnant women throughout the world is 38.2%, with the highest prevalence in the Southeast Asia region (WHO, 2023). Based on data from the Ministry of Health of the Republic of Indonesia, around 40–50% of pregnant women experience anemia, which means 5 out of 10 pregnant women experience anemia. There are 37.1% of pregnant women with Hb levels of less than 11.0 grams/dl, with almost the same proportion in urban (36.4%) and rural areas (37.8%) (Ministry of Health, 2018).

Based on data from the Lampung Provincial Health Service, the prevalence of anemia in pregnant women in this province is still quite high. In 2019, the prevalence of anemia reached 9.06% and increased to 9.10% in 2020 (Lampung Health Service, 2022).

According to data from the Lampung Provincial Health Service, in 2020, of the total number of babies weighed around 145,422, there were 3,169 or 2.2% of LBW cases. In 2021, there will be an increase in LBW cases of around 4,812 or around 3.7% of LBW cases in Lampung Province (Lampung Health Service, 2022). Then on the frequency distribution of LBW at RSUD Dr. H. Abdul Moeloek Bandar Lampung in 2022 there were 52 cases (28.9%).

Pregnant women with CED will have impacts, including babies being born who are LBW and have fatal risks, for example, the baby experiencing malnutrition, baby death, disruption to the child's growth. Prevention that mothers can do is by consuming sufficient amounts of calorie energy (rice, sweet potatoes, etc.) as well as vitamins and minerals found in fruits, vegetables, side dishes and milk. Pregnant women who experience CED have risks, including affecting the fetal growth process, causing miscarriage, abortion and stillbirth (Department of Nutrition and Public Health, FKMUI, 2012).

CED causes disruption to the health of the mother or fetus she is carrying. Pregnant women with CED will experience complaints such as constant fatigue, tingling sensation, pale face. Meanwhile, a fetus that does not grow optimally will cause the baby to be born to have a low birth weight, the development of the fetus's organs will be disrupted, this incident will affect learning ability, cognitive ability, the child tends to be at risk of experiencing disabilities, and there can be a risk of the baby being stillborn, this which can occur in fetuses conceived by mothers with CED, including miscarriage (Kristiyanasari, 2014). Based on the data and results of the pre-survey above, researchers are interested in conducting research on

the relationship between chronic energy deficiency (KEK) in pregnant women and the incidence of low birth weight (LBW) babies at Abdoel Moeloek Regional Hospital in 2024.

RESEARCH METHODS

This research method uses methods Correlative descriptive research with cross sectional research design. Thatt cross sectional is research to study systematic correlation or relationship between risk factors, which are variable independent (risk variable) and variable dependent (effect variables) will be collected at the same time. The population in this research is all TM III pregnant women at the Community Health Center, numbering 66 people.

The number of samples in this research is all TM III pregnant women at the Community Health Center numbering 66 people. In this research the instrument used for data collection is checklist form to collect data mother during her pregnancy and check-ups pregnancy using LILA and From this measurement data will be obtained entered in the checklist sheet, for data LBW babies also use sheets checklist for when the baby is born The data will be recorded as to whether it is included into LBW or not LBW. Data collection methods used by the author of this research is with using primary data, where the mother is pregnant third trimester sambple. In this research, the analysis design used is univariate analysis and also bivariate which aims to describe each variable used in this research by looking frequency distribution with size percentage/proportion for each variable and also links between variables research. Univariate analysis is analysis carried out on each variable of the results study. Bivariate analysis is analysis which was carried out on 2 variables suspected to be related or correlated 5. In analysis can be carried out statistical testing with Chi Square.

RESEARCH RESULTS
Univariate Analysis
KEK Incident

Table 1
Frequency Distribution of Respondents Based on KEK Events

Incident KEK	F	%
Not KEK	35	53
KEK	31	47

Based on table 1, the frequency distribution of respondents based on the occurrence of CED, it is known that more than half of the respondents did not experience CED, 35 people (53%) and less than half

of the respondents experienced CED, 31 people (47%).

Tabel 2
Frequency Distribution of Respondents Based on LBW Events

Incident BBLR	F	%
Not BBLR	41	62,1
BBLR	25	37,9

Based on table 2, the frequency distribution of respondents based on LBW incidents shows that a small number of respondents experienced LBW incidents, 41 people (62.1%) and the majority of respondents did not experience LBW incidents, 25 people (37.9%).

Bivariate Analysis

Table 3
Frequency Distribution of Respondents Based on the Occurrence of KEK with LBW incident

Incident KEK	Incident BBLR						P Value
	not BBLR		BBLR		Total		
	F	%	f	%	F	%	
Tidak KEK	30	85,7	5	14,3	35	100	0,000
KEK	11	35,5	20	64,5	31	100	

Based on table 3, it can be seen that of the 35 respondents who did not experience CED, it is known that the majority of respondents did not experience LBW, 30 people (85.7%) and a small number of respondents experienced LBW, 5 people (14.3%). Meanwhile, of the 31 respondents who experienced CED, it is known that less than half of the respondents did not experience LBW, 11 people (35.5%) and more than half of the respondents experienced LBW, 20 people (64.5%). Based on the results of the Chi Square statistical test, it is known that the P value of 0.000 is smaller than the α value (0.05), so it can be concluded that there is a relationship between the incidence of KEK and the incidence of LBW.

Incidents of LBW

Based on table 2, the frequency distribution of respondents based on LBW incidents shows that a small number of respondents experienced LBW incidents, 41 people (62.1%) and the majority of respondents did not experience LBW incidents, 25 people (37.9%). Pregnant women who were previously normal suddenly become at high risk because pregnancy is dynamic. If a pregnant woman has a poor health status, for example the mother suffers from anemia, the baby will.

If the baby is born with a low birth weight, if the baby is born LBW, there will be a risk of illness such as infection of the respiratory tract and risk of death. Bleeding during labor or after delivery, health problems, and even death are risks for pregnant women who suffer from anemia.

One way to assess the nutritional status of pregnant women is by taking anthropometric measurements. Weight gain in pregnant women and LILA measurements during pregnancy are most frequently used. LILA is anthropometry which can describe the nutritional status of pregnant women and to determine the risk of CED or malnutrition. Mothers whose LILA size is below 23.5 cm are at risk of giving birth to LBW (low birth weight) babies.

If at the beginning of pregnancy the mother has a normal LILA or BMI but the mother's weight does not increase as recommended, then the mother is at risk of giving birth to a LBW baby. Apart from that, according to Assefa, et al. (2012), both chronic and acute energy deficiency have a relationship and influence on the birth weight of the baby, but acute energy deficiency has a more pronounced effect compared to chronic energy deficiency.

Pregnant women who have experienced CED are advised to increase their nutritional intake with foods that are high in calories and high in protein and get additional food from the Community Health Center for free for those who cannot afford it or are poor.

Anggraini et al. (2014) have conducted research and concluded that LILA and LBW have a significant relationship. In addition, pregnant women who have LILA <23.5 cm are 4.3 times more likely to give birth to LBW babies.

Relationship between the incidence of KEK and the incidence of LBW

Based on table 4.3, it can be seen that of the 35 respondents who did not experience CED, it is known that the majority of respondents did not experience LBW, 30 people (85.7%) and a small number of respondents experienced. The incidence of LBW was 5 people (14.3%).

Meanwhile, of the 31 respondents who experienced CED, it is known that less than half of the respondents did not experience LBW, 11 people (35.5%) and more than half of the respondents experienced LBW, 20 people (64.5%).

Based on the results of the Chi Square statistical test, it is known that the P value of 0.000 is smaller than the α value (0.05), so it can be concluded that there is a relationship between the incidence of KEK and the incidence of LBW.

An imbalance between intake to meet needs and energy expenditure is a specific cause of CED 7. If a pregnant woman suffers from malnutrition or CED, this condition will greatly affect the growth of the fetus she is carrying. This influence will determine the birth weight of the baby which will be less than it should be. This low baby weight will greatly influence the death of larger babies. A study in Guatemala (United States) showed that the lower the birth weight of newborns, the greater the mortality rate.

The results of the research above are also supported by research conducted by Kartikasari (2011) regarding the relationship between KEK and the nutritional status of pregnant women at the Bangetayu Community Health Center, Semarang City. Statistical tests show that between the incidence of Crhonoc Energy and the incidence of LBW, the calculation results obtained a value of p=0.036 (p<0.05), so it can be concluded that there is a significant relationship between CED in pregnant women and LBW.

CONCLUTION

Based on the results of the research and discussion, it can be concluded that the relationship is lacking Chronic Energy in Pregnant Women with Low Birth Weight (LBW) :

1. It is known that more than half of the respondents did not experience a KEK incident, 35 people (53%).
2. It is known that more than half of the respondents experienced LBW incidents, 41 people (62.1%).
3. Based on the results of the Chi Square statistical test, it is known that the P value of 0.000 is smaller than the α value (0.05), so it can be concluded that there is a relationship between the incidence of KEK and the incidence of LBW.

SUGGESTION

It is hoped that health workers, especially midwives, will further improve counseling in health services to pregnant women so that pregnant women can obtain sufficient information about nutrition, especially so that mothers are not affected by Chronic Energy Deficiency.

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