**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.

**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

**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 METHODOLOGY**

This research was conducted for 1 day. This type of research is an analytical survey with a pre post experimental design with paired t test data analysis. This research was conducted at the Kesumadadi Community Health Center with a population of 12 mothers who carried out pregnancy checks at the Kesumadadi Community Health Center in 2024. The sample used in this research was total sampling.

The inclusion criteria in this study were mothers who agreed to be respondents, mothers who had their pregnancy checked at the Kesumadadi Health Center and mothers whose homes were close to the Kesumadadi Health Center. The exclusion criteria in this study were mothers who could not read and mothers who had pregnancy complications.

**RESEARCH RESULT**

 The nutrition education carried out in this service activity takes the form of counseling using leaflet media with the material presented, namely nutrition during pregnancy, signs and symptoms and prevention of stunting, then continued with a discussion and question and answer session (figure 1). In the discussion session, participants were very active in asking questions regarding the types of food that should be consumed, foods that should be consumed and reduced, food arrangements when children start being given complementary foods for breast milk, and efforts to prevent stunting and how to consume food in the early trimester. After being given nutritional education in the form of material about stunting, it was followed by a demonstration on making additional food for pregnant women based on local food (figure 2). When explaining frozen food recipes, participants were very enthusiastic and liked the taste of the frozen food they made.

**Tabel 1**

**The Effect Of Knowledge Level Education On The Implementation Of Balanced Nutrition During Pregnancy Based On Local Food As Stunting Prevention**

**Conclusion**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Pengetahuan | F | % | F | % | P value |
| Baik | 4 | 33.3 | 10 | 83,3 | 0,005 |
| Cukup | 0 | 0 | 2 | 16,7 |
| Kurang | 8 | 66,7 | 0 | 0 |
| Jumlah | 12 | 100 | 12 | 100 |

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Table 1 shows that of 12 pregnant women, only 33.3% of pregnant women had good knowledge before being given education. Increased to 83.3% after being given education. 66.7% before education, pregnant women had little knowledge about nutrition during pregnancy. This lack of knowledge regarding balanced nutrition in pregnant women is illustrated by the lack of weight gain of the pregnant mother during pregnancy based on interview data on weight gain or discrepancies in weight gain in the current trimester and the research results of Misrina and Salmiati (2021) state that a mother with knowledge and poor nutritional attitudes can affect the nutritional status of the mother which is reflected in weight gain that is not appropriate for gestational age, this is due to a good understanding of nutrition related to choosing a balanced menu. Other research proves that there is a relationship between a mother's good understanding of nutrition and one of the determinant factors for the growth and development of babies and toddlers. Mothers with good knowledge and understanding of nutrition are able to choose good food ingredients and prepare a balanced menu according to nutritional needs at the household level and are able to implement a healthy lifestyle. (Lukman et al., 2017; Antari, G. Y., & Supianti, R. 2022). Other research explains that knowledge and understanding of good nutrition is reflected by consuming blood supplement tablets as recommended so that it affects the nutritional status of pregnant women (Susanti, D. ., & Dewi, R. 2022).

 The results of table 1 are 0.005, which means there is an influence between the implementation of balanced nutrition education in pregnant women. Education is one of the health education activities. Health education is defined as a learning process carried out both targeting individuals, families, groups and communities with the aim of changing unhealthy behavior to healthier patterns. There are many methods used in the health education process, including strategies for sharing knowledge, maintaining commitment to behavior change and also health education focusing on behavior change as the basis for changes in health status (Listyarini et al., 2020).

After being interviewed and filling out the post test questionnaire, 83.3% of pregnant women already knew about balanced nutrition during pregnancy in preventing stunting by answering and providing arguments and statements that supported pregnant women's own understanding regarding the material presented. Pregnant women know that there is no significant weight gain during pregnancy due to poor food supply patterns and eating habits during pregnancy, and are also aware of the effects of this ignorance on pregnant women who have had children before by looking at the nutritional status of the child concerned. After carrying out a demonstration on making frozen food based on local food for pregnant women, pregnant women became interested and practiced at home. Nutrition education for pregnant women has a significant impact on increasing mothers' knowledge about nutrition during pregnancy and preventing stunting. Previous research showed that there was an increase in maternal knowledge after being given intervention in the form of nutrition education (Anggraeni & Murni, 2021).

 Nutrition education given to pregnant women is reported to be able to change mothers' behavior in selecting and procuring balanced food at the household level, which if balanced nutrition is met is able to prevent short births and stunting in the future (Yunitasari et al., 2021). Other research is Ekayanthi & Suryani (2019) showed the results that providing education to pregnant women had a significant influence on increasing mothers' knowledge in preventing stunting. The mother's attitudes and behavior during pregnancy are supported by the mother's knowledge about her pregnancy (Ekayanthi & Suryani, 2019). The most successful nutritional health intervention for pregnant women is knowledge (Musdalifah et al., 2020)

**SUGGESTION**

There has been an increase in nutritional knowledge of pregnant women to prevent stunting. Advice given to cadres and TPGs in local work areas is that assistance in the form of nutrition education should be carried out as often as possible so that targets know and are often exposed to health information. There is an influence of 0.005, which means there is an influence between the application of balanced nutrition education to pregnant women.

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