THE RELATIONSHIP BETWEEN CHRONIC ENERGY LACK (CED) AND THE INCIDENCE OF LOW BIRTH WEIGHT (LBW) IN DESTI MAYASARI'S INDEPENDENT MIDWIFE PRACTICE AT THE KEDAUNG VILLAGE, PARDASUKA DISTRICT

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ABSTRACT

A pregnant woman who has poor nutritional status or Chronic Energy Deficiency (CED) has the potential to give birth to a Low Birth Weight (LBW). This study aims to determine the relationship between Chronic Energy Deficiency (CED) and Low Birth Weight (LBW) incidence in Desti Mayasari's Independent Midwife Practice at the Kedaung Village, Pardasuka District, in 2021. The research used was quantitative with a cross-sectional approach. A sample of 59 mothers giving birth in Desti Mayasari's Independent Midwife Practice at the Kedaung Village, Pardasuka District. Sampling technique with Total Sampling. The data collection process uses the observation method or data collection simultaneously (point time approach). The analysis used in this research is univariate with frequency distribution and bivariate with chi-square. The results showed that the percentage of pregnant women who experienced CED during early pregnancy was 14 people (23.7%), and LBW cases were 6 babies (10.2%). There is a significant relationship between Chronic Energy Deficiency (CED) in pregnant women and the incidence of LBW (p-value = 0.000). Based on this, it is necessary to increase comprehensive early detection efforts for pregnant women by Mid-Upper Arm Circumference (MUAC) regularly and continuously, optimizing the treatment of pregnant women with Chronic Energy Deficiency (CED) status.

Keywords: Chronic Energy Deficiency (CED), Low Birth Weight (LBW), Mid-Upper Arm Circumference (MUAC)

INTRODUCTION

Every pregnant woman experiences her pregnancy differently; some have healthy pregnancies, while others have risk issues. "1000 Days Nutrition" is one of the government's planned initiatives in nutrition and health. This program aims to increase public awareness of the value of providing nourishment throughout a child's first 1000 days of life to promote healthy growth and development. As a child's existence begins in the mother's womb, this show opens by highlighting pregnant women's nutritional state (Pertiwi, et al, 2020).

The health and safety of mothers and newborns and the quality of the offspring can be impacted by pregnant women who have nutrition and health issues. A shortage of energy and protein consumption or an imbalance in energy and protein intake leads to chronic energy deficiency (CED). Pregnant women with a Mid-Upper Arm Circumference (MUAC) of <23.5 cm are at risk of developing CED (Supariasa, 2016).

The condition of pregnant women with CED can impact labour length, postpartum haemorrhage, and possibly the risk of death for the mother due to decreased muscle strength that aids in labour. Due to the condition of pregnant women with CED, there is an increased risk of fetal death (miscarriage), premature birth, congenital disabilities, low birth weight (LBW), and infant death. It can affect a fetus's growth and development while still in the womb, including its physical growth (stunting), brain development, and metabolism, which results in non-communicable disorders in adulthood (Hani & Luluk, 2018).

The prevalence of CED in pregnant women in the world reaches 41%. In Asia,

the proportion of pregnant women with CED in Thailand is around 15.3%; Tanzania shows a prevalence of 19% of teenage pregnant women aged 15-19 years experiencing CED (Hani & Luluk, 2018).

Based on data from the Regional Health Research in 2018, the prevalence of CED risk in women of reproductive-aged 15-49 who are pregnant nationally is 24.2%. The highest prevalence of SEZ risk occurred in East Nusa Tenggara (45.5%) and the lowest in Bali (10.1%). Lampung has a prevalence rate of CED risk in pregnant women of 21.3%, which is still below the national rate of 24.2%. The risk prevalence of pregnant women according to age characteristics occurs mostly at the age of 15-19 years by 38.5%, at the age of 20-24 years by 30.1%, at the age of 25-29 years by 20.9% and at the age of 30-34 years by 21.4% (Ministry of Health of the Republic of Indonesia, 2019).

In Indonesia, 89% of pregnant women with CED will receive supplemental nutrition in 2020. Gorontalo, Bali, and the Riau Islands had 100.0% of pregnant mothers with CED covered for supplemental feeding. Papua, with a performance of 65.7%, had the lowest achievement among the provinces. 95.3% of people are covered under Lampung province (Ministry of Health of the Republic of Indonesia, 2021).

Based on a survey conducted in Desti Mayasari's Independent Midwife Practice at the Kedaung Village, Pardasuka District, it was found that a total of 59 mothers gave birth, 14 of whom had Chronic Energy Deficiency (CED) status, and 6 babies (10.2%) were found to have LBW in 2021.

Based on the background above, the researchers are interested in taking the title "The Relationship Between Chronic Energy Lack (CED) And The Incidence Of Low Birth Weight (LBW) In Desti Mayasari's Independent Midwife Practice At The Kedaung Village, Pardasuka District".

RESEARCH METHODS

This research design is analytic observational research with a cross-sectional approach with observation research methods or data collection at one time (point time approach). This research was conducted in the work area of Desti Mayasari's Independent Midwife Practice at the Kedaung Village, Pardasuka District, in 2021. The subjects in this study were all mothers who gave birth in Desti Mayasari's Independent Midwife Practice at the Kedaung Village, Pardasuka District, in 2021, namely 59 people.

RESULT AND DISCUSSION

According to Table 1 below, which summarizes the findings of the univariate analysis, 14 women (23.7%) who were among the 59 respondents who gave birth had CED status, whereas 45 other persons (76.3%) did not have the condition throughout their early pregnancies. Six infants (10.2%) of the 59 respondents had LBW status (weight 2500 g), while 53 other neonates (89.8%) had normal BBL (weight 2500 g).

Table 1. Frequency Distribution of Chronic Energy Deficiency (CED) and Low Birth Weight (LBW)

Variabel	F	%	Total	
			F	%
CED (MUAC <23,5 cm)	14	23,7	59	100
Not CED (MUAC ≥23,5 cm)	45	76,3		
LBW (<2500 gr)	6	10,2	59	100
Normal (≥2500 gr)	53	89,8		

Source: processed data for 2021

The results of the bivariate analysis in this study showed that there was a significant relationship (p-value= 0.000) between Chronic Energy Deficiency (CED)

in pregnant women and Low Birth Weight (LBW) which can be seen in Table 2 below:

Table 2. Relationship Between Chronic Energy Deficiency (CKD) and the incidence of Low Birth Weight (LBW) in Desti Mayasari's Independent Midwife Practice at the Kedaung Village, Pardasuka District in 2021

Variable	LBW		Normal		Total		*p-value*
	F	%	F	%	F	%	
CED	6	10,2	8	13,6	14	100	0,000
Not CED	0	0	45	76,3	45	100	

***Chi-Square* * Source: processed data for 2021**

The results of this study are in line with research conducted by Rusependhi & Utari (2020), based on the results of the statistical analysis of the Chi-Square test (p= 0.002); (OR=4.317), (95% CI: 1.776-10.495) which means that there is a significant relationship between the status of a mother's CED during pregnancy and the incidence of LBW, where pregnant women with CED have a 4.317 times higher risk of giving birth to LBW compared to pregnant women who are not CED. In a study conducted by Ekowati et al. (2017), it was also found that Chronic Energy Deficiency (CED) increased the risk of giving birth to a child with LBW status by 5.6 times (AOR = 5.6; 95% CI: 1.41 - 22,57). Research conducted by Restu et al. (2017) also stated the same thing, namely that there was a significant relationship between CED in pregnant women with LBW (p= 0.000), CED is a risk factor for LBW with RR= 4.215 (RR>1).

The nutritional condition of the mother before and during pregnancy can affect the mother's nutritional status. Mothers with a history of chronic energy deficiency during pregnancy can inhibit the growth process in the fetus, so mothers are at risk of giving birth to babies with low birth weight and are at risk of stunted children by 4.154 times. In addition, children with a history of LBW will experience slower linear growth than children born with a history of LBW (Maulina et al., 2020).

In 2012, the World Health Organization (WHO) endorsed a comprehensive nutrition implementation plan for mothers, infants and toddlers, which set six global nutrition targets for 2025. This policy includes a third target, namely a 30% reduction in the incidence of Low Birth Weight/ LBW (WHO, 2014).

LBW is a valuable public health indicator of maternal health, nutrition, health service delivery, and poverty because babies with LBW are at higher risk of death and illness soon after birth and of non-communicable diseases later in life (Agbozo et al., 2016).

CONCLUSIONS

Based on the results of research on the relationship between Chronic Energy Deficiency (CED) and the incidence of Low Birth Weight (LBW) in Desti Mayasari's Independent Midwife Practice at the Kedaung Village, Pardasuka District in 2021, it was concluded that the percentage of pregnant women who experience CED in early pregnancy 14 people (23.7%), and LBW cases as many as 6 babies (10.2%) in 2021. Based on the Chi-Square test, it is known that p-value= 0.000, which means a significant relationship exists between Chronic Energy Deficiency (CED) in pregnant women with LBW.

The suggestions from this study are that there is a need for improvement in handling cases of Chronic Energy Deficiency (CED) through the Provision of Supplementary Food earlier during pregnancy, coordinating with related parties, especially the local Health Office and midwives, to provide counselling on the importance of nutrition and improve screening status nutrition, increasing the role of cross-sectors because nutrition problems are problems whose handling efforts require the cooperation of related sectors.

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