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A Correlation Between Education And Early-Age Pregnancy With The Incidence Of Chronic Energy Deficiency (Ced) Among Pregnant Women In The Working Area Of Karya Sakti Health Center, Musi Rawas

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Abstract. Chronic Energy Deficiency (CED) is a condition of nutritional deficiency in pregnant women. The issue in this study is the increase in CED cases at Lingkar Barat Health Center, which rose by 10.02% from 3.68% in 2016 to 14.7% in 2017. This study aims to determine the correlation influencing CED among pregnant women at Karya Sakti Health Center, Musi Rawas. This research is an analytic survey with a cross-sectional approach. The sample size is 44 pregnant women. The study was conducted using univariate and bivariate analyses. The results showed that education ($p=0.016$) and early-age pregnancy ($p=0.033$) were correlated with the incidence of CED. It is hoped that the health center will enhance programs to manage CED in pregnant women and perform early detection of factors causing CED. Midwives are encouraged to improve their services to pregnant women by increasing knowledge through updated literature and providing direct education to pregnant women about the nutritional needs during pregnancy. They should also offer recommendations on foods rich in folic acid and iron to prevent anemia caused by CED in pregnant women.

Keywords: *Education, Early-Age Pregnancy, CED Incidence.*

INTRODUCTION

The World Health Organization (WHO) in 2019 stated that the prevalence of Chronic Energy Deficiency (CED) in pregnancy globally is 35% to 75%. WHO also noted that 40% of maternal deaths in developing countries are related to CED (WHO, 2018). Based on basic health research data conducted by the Health Research and Development Agency in 2019-2018, the prevalence of CED in pregnant women in Indonesia was 17.3%. (Ministry of Health of the Republic of Indonesia, 2018). Data from the Musi Rawas Health Office in 2021 showed that there were 351 (9.2%) cases of pregnant women experiencing CED out of 3,812 pregnant women who underwent pregnancy check-ups, with the highest incidence at the Karya Sakti Health Center with 44 (9.8%) cases, Muara Kelingi Health Center with 34 (11%) cases and Muara Lakitan Health Center with 31 (8.8%) cases (Musi Rawas Health Office, 2021). Data from the Karya Sakti Health Center shows that the number of cases of KEK has increased from 2021 with 27 cases, 2022 with 34 cases and 2023 with 44 cases.

The demographic data obtained by the majority of married women are housewives, aged 18-40 years (Karya Sakti Health Center, 2023) Pregnant women with nutritional and health problems have an impact on the health, safety of mothers and babies and the quality of babies born. The condition of pregnant women with chronic energy deficiency (KEK) is at risk of reducing muscle strength that helps the labor process so that it can result in prolonged labor and postpartum hemorrhage, even maternal death. Risks to the baby can result in fetal death (miscarriage), premature birth, birth defects, Low Birth Weight (LBW) and even infant death.

This study aims to determine the relationship between education and early pregnancy with the incidence of chronic energy deficiency in pregnant women in the Karya Sakti Musi Rawas Health Center work area.

LITERATURE REVIEW

KEK is a state of malnutrition, malnutrition is a pathological condition due to a relative or absolute deficiency or excess of one or more nutrients (Supriasa, 2014). KEK is a condition where a person experiences a long-term or chronic lack of nutrition (calories and protein) (Ministry of Health, 2020). Chronic Energy Deficiency (CED) in pregnant women can cause risks and complications (Maternal and Neonatal Health Services. According to Education, it does not immediately bring benefits to society, and which are easy to see or measure. In a short time, education only results in changes or improvements in individual and community education. While increasing knowledge alone will not have a direct impact on various indicators in life (Notoatmodjo, 2017).

Research by Nuri Luthfiatil Fitri, (2022) shows that there is a relationship between age and the incidence of CED in pregnant women where pregnant women aged <20 years and >35 years are at 3.134 times greater risk of experiencing CED compared to pregnant women aged between 20-35 years. Maternal age is one of the factors that has been proven to be related to the incidence of CED where mothers aged <20 years and >35 years have a higher risk of experiencing CED compared to those of healthy reproductive age.

METHODS

This type of research uses a descriptive analytical research design with a cross-sectional approach. Descriptive research is conducted by observing and analyzing data through hypothesis testing. Nursalam (2020), cross-sectional research is a type of research that is conducted only once at one time of measurement or observing data on independent variables (early pregnancy), (Education) and dependent (chronic energy deficiency events) simultaneously without any follow-up post-data measurement. This research was conducted at the Karya Sakti Health Center, Musi Rawas Regency.

The population in this study were all pregnant women from the Karya Sakti Health Center working area in January - May 2024, namely 44 people. The sample of this study was some pregnant women in the Karya Sakti Health Center working area and the sample size was determined by Total Sampling, namely 44 people

RESULTS

Univariate Analysis

Table 1 Distribution Frequency Characteristics KEK Education Event at the Health Center Work Powerful

No	Respondent Characteristics	Frequency	Percentage
1	Education		
	Low	0	0.0%
	Intermediate	26	59.1%
	Tall	18	40.9%
	Amount	44	100%
2	Age		
	At risk	17	38.6%
	No Risk	27	61.4%
	Amount	44	100%

Table 2 Distribution Frequency Characteristics KEK incident at the Health Center Work Powerful .

KEK Events	Frequency	Percentage (%)
KEK	9	20.5%
No KEK	35	79.5%
Amount	44	100%

Bivariate Analysis

Table 3 Relationships Education To KEK Incident at the Health Center Work Powerful .

No.	Education	EVENTS OF KEK				Amount		p.value
		KEK		No		F	%	
		F	%	F	%	F	%	
1	Low	0	0	0	0	0	0	0.02
2	Intermediate	8	18.2	17	38.6	25	56.8	
3	Tall	1	2.3	18	40.9	19	43.2	
	Total	9	20.5	35	79.5	44	100	

Table 4 Connection Pregnancy Age Early to KEK incident at the Health Center Work Powerful .

No.	Early Pregnancy	EVENTS OF KEK				Amount		p.value OR	
		KEK		No		F	%		
		F	%	F	%	F	%		
1	At risk	7	15.9	10	22.7	17	38.6	0.007	8.75
2	No risk	2	4.5	25	56.8	27	61.4		
	Total	9	20.5	35	79.5	44	100		

DISCUSSION

Connection Education To KEK Incident at the Health Center Work Powerful .

Results The research found that of the 9 respondents who experienced KEK, most of them small from Respondent 8 (18.2 %) education intermediate and and part small from respondents 1 (2.3 %) highly educated. The results of the statistical test obtained a p-value = 0.02 where *the p-value* (0.02) is smaller than the α value (0.05) meaning that there is a significant relationship between education and the incidence of KEK at the Karya Health Center. Sakti, Regency Music Rawas . From the research results, it was also found that respondents with secondary education did not experience KEK, namely almost half of the respondents 17 (38.6%) because the respondents had early pregnancy at a risky age, namely being under 20 years old, which would affect the nutritional needs required and would cause KEK. The results of this study are in line with research by Pomalingo et al. (2018) that of the 18 pregnant women with KEK, the highest education was elementary school education. as many as 9 people (50.0%) and the lowest was D3 education as many as 1 person (5.6%). Mothers with low education tend to have less access to information and do not have the ability to get better education (Pomalingo et al., 2018).

Formal education of mothers often has a positive association with the development of food consumption patterns in the family. The higher the level of education of the mother, the better the nutritional education and the more the types and amounts of food chosen for consumption are taken into account (Handayani et al., 2010). The results of the statistical test obtained a p-value = 0.0016, meaning that there is a significant relationship between education and the incidence of KEK at the Health Center. Work Sakti . The results of this study are in line with Handayani's research (2010) that the results of the study obtained a p value = 0.009, this

indicates that there is an influence between education and the occurrence of KEK. According to Notoatmodjo's theory (2014), education is a process using the five senses carried out by a person on a certain object, resulting in educational skills that can form certain beliefs so that a person behaves in accordance with their beliefs. Dafiu's (2019) study found a relationship between education and chronic energy deficiency in pregnant women in the Umbulharjo Health Center work area with a p value of 0.0001.

The results of this study are in accordance with the research conducted by Wati (2019), that there is a relationship between education and the incidence of KEK in pregnant women in the Siak River Coastal Area, Pekanbaru with a p value of 0.035. Lubis's research (2020) found a significant relationship between maternal nutrition education and KEK during pregnancy as evidenced by the results of a statistical test with a p value of 0.01 at the Langsa Lama Health Center in Langsa City. Maternal education is one of the causes of pregnant women experiencing KEK. Education about pregnancy nutrition is very important for fulfilling nutrition during pregnancy.

The researcher's assumption is that maternal education is one of the factors causing pregnant women to experience KEK. Education about pregnancy nutrition is very important for fulfilling nutrition during pregnancy. For pregnant women, nutritional needs are not only for themselves but also for the fetus. contained in it. The more the nutritional needs of pregnant women are met, the more the nutritional needs of the fetus will be met properly, so that the growth and development stages of the fetus in the womb can occur perfectly. The fetus in the womb needs nutrients and only the mother can provide them, therefore the food of pregnant women must be sufficient for both, namely for the mother and the fetus in her womb. Food that contains sufficient nutrients during pregnancy is very important. If the amount of food is reduced, the baby born will be smaller .

Connection Pregnancy Age Early To KEK Incident at the Health Center Work Powerful .

Results research obtained that of the 9 respondents who experienced KEK, most small from Respondent 7 (15.9%) risk age and some small from respondents 2 (4.5 %) were not at risk. The results of the statistical test obtained a p-value = 0.007 where *the p-value* (0.007) is smaller than the α value (0.05) meaning that there is a significant relationship between Pregnancy Age Early with the KEK incident at Karya Health Center Powerful , Regency Musi Rawas . The OR result is 8.75, which means early pregnancy age 8 times at risk of experiencing KEK. From the research results, it was found that the respondents' age was at risk but did not experience KEK, namely almost half of the respondents (22.7%) because the mother was over 35 years old who had knowledge and higher education so that they could prevent KEK and were better prepared to deal with pregnancy.

Age is an important factor in the process of pregnancy until delivery, because the pregnancy of a young mother causes food competition between the fetus and the mother who is still growing. Mothers who are less than 20 years old have a higher risk of KEK. The younger the mother's age is less than 20 years and the older the mother's age is from 35 years who are pregnant will affect the nutritional needs that are needed which will cause KEK. At a young age, additional nutrition is needed because in addition to being used for growth and development of oneself, it must also be shared with the fetus that is being carried.

While at an old age, great energy is also needed because the function of the organs is weakened and required to work optimally, so there needs to be sufficient additional energy to support the ongoing pregnancy. So the best age is more than 20 years to 35 years (Tejayanti, 2019). Utami's research (2020) found a relationship between the age of pregnant women and the incidence of KEK with a p value = 0.03. A woman's age during pregnancy should not be too young and not too old. Ages less than 20 years and more than 35 years can cause risks during childbirth. The results of the study are in line with Erwinawati (2018) there is a determinant

relationship between age and the incidence of chronic energy deficiency in pregnant women at the Lubuk Mudan Health Center with a p value = 0.003. The age of pregnant women 35 years can increase the risk of complications in pregnancy. The still high rate of young marriage is one of the reasons for the still high KEK. Renjani (2019) found a relationship between the age of pregnant women and the incidence of KEK in pregnant women in the Krueng Jaya Aceh Besar Health Center Work Area with a p value = 0.003, OR = 13.5, which means that pregnant women aged <20 years and >35 years have a 13.5 times greater chance of experiencing KEK than those aged 20 - 35 years. This is in line with Marlapan's (2020) study in the Tuminting Health Center Work Area, Manado City, showing that the p value = 0.005 and the OR value = 7.73, that pregnant women with a risky age are 7 times more at risk of experiencing KEK than pregnant women with a risky age who do not experience KEK.

The driving factor for mothers to get pregnant at a young age is because the mother got married at too young an age, so that when the mother enters the pregnancy period, the condition of her reproductive organs is not biologically ready and psychologically not yet mature, so that the needs of the mother's body and the needs of the fetus are not balanced and even malnutrition occurs, as well as in mothers who are pregnant at an old age, the body needs more energy because the body's system is starting to weaken. Mahirawati's (2018) research on factors related to chronic energy deficiency in pregnant women in Kamoning and Tambelangan Districts, Sampang Regency, East Java showed that the p value = 0.004 and the OR value = 3.112, meaning that pregnant women with a risk age are 3 times more at risk of experiencing KEK than in pregnant women with risk age who do not experience KEK. Pregnancy in young mothers causes food competition between the fetus and the mother who is still growing. The researcher's assumption of the results is in accordance with the 2018 Riskesdas which states that the prevalence of pregnant women experiencing KEK is highest in the age range of 15-19 years at 33.5% compared to the age of 20-49 years.

Factors that affect the nutritional status of a pregnant woman are the mother's age is too young in this case less than 20 years or the mother is too old, namely more than 35 years because the age of the pregnant woman is related to the development of the reproductive organs which will indirectly affect the mother's weight gain during pregnancy, nutritional status before and during pregnancy. Mothers with a higher risk of experiencing KEK, because at the age of < 20 years Mothers are still growing and at the same time pregnant, so mothers need more nutrition and nutrients, but most people misunderstand it, young mothers are considered strong, energetic and growing, so when pregnant many mothers do not want to drink milk, eat whatever they want without paying attention to nutritional value, do not want to take iron tablets, so mothers are very susceptible to KEK because the high metabolism of the growth period and pregnancy is not balanced with an unbalanced nutritional intake.

Likewise with mothers who are pregnant at the age of >35 years, the mother experiences malnutrition because during pregnancy the mother eats as usual when she is not pregnant and even in the first trimester the mother has no appetite so that the nutritional needs required for pregnancy are not met and the age period >35 years is also an age at risk of experiencing KEK because at this age, the body has a higher metabolism because the body's system is starting to weaken, so if the mother's nutritional intake is lacking, she will be very susceptible to KEK because there is an imbalance in the intake and expenditure of nutrients and energy.

CONCLUSION

I Most of the respondents 26 (59.1%) had secondary education and most of the respondents were not at risk 27 (61.4%) at the Community Health Center. Work Magic . There is a Relationship Education to KEK incident at the Health Center Work Magic with value p value

0. 0 29 . There is a Relationship Pregnancy Age Early to KEK incident at the Health Center Work Magic that is with *p value* 0.007 and OR 8.47

REFERENCES

- Achadi, E. L. (2019). Kematian Maternal dan Neonatal di Indonesia. Rakerkernas 2019.
- Afiyanti. (2020). Masalah Kesehatan Reproduksi Wanita. Yogyakarta: Nuha Medika
- Amin & Hardhi. (2020). Asuhan Keperawatan Berdasarkan Diagnosa Medis & NANDA Jilid I edisi Revisi. Jogjakarta: Mediacion Jogja
- Andiyani, & Susilawati. (2019). Kejadian Kekurangan Energi Kronik (KEK) pada Ibu hamil. Jurnal Kesehatan.
- Arikunto. (2020). Prosedur Penelitian, cetakan ke-4. Jakarta: Rineka Cipta
- Ary dan Rusilanti. (2015). Faktor-Faktor Yang Berhubungan Dengan Kekurangan Energi Kronis (Kek) Pada Ibu Hamil Di Kecamatan Kamoning Dan Tambelangan, Kabupaten Sampang, Jawa Timur. Buletin Penelitian Sistem Kesehatan.
- Dinkes Provinsi Sumatra selatan. (2020). Dinkes Provinsi Sumatra selatan Tahun 2020.
- Dinkes Kota Musi rawas. (2019). Dinkes Kota Musi Rawas Tahun 2019. Kota Musi Rawas
- Ernawati, A. (2018). Hubungan Usia dan Status Pekerjaan Ibu dnegan Kejadian Kurang Energi Kronis pada Ibu Hamil. Jurnal Litbang: Media Informasi Penelitian, Pengembangan Dan IPTEK. <https://doi.org/10.33658/jl.v14i1.106>
- Eva, S. (2020). Wanita dan Reproduksi. Jakarta: Trans Info Media.
- Fatimah, S., & Yuliani, N. T. (2019). HUBUNGAN KURANG ENERGI KRONIS (KEK) PADA IBU HAMIL DENGAN KEJADIAN BERAT BAYI LAHIR RENDAH (BBLR) DI WILAYAH KERJA PUSKESMAS.
- Hartanto. (2015). Keluarga Berencana dan Kontrasepsi. Jakarta: Pustaka Sinar Harapan
- Manuaba. 2010. Ilmu Kebidanan Penyakit Kandungan dan KB. Jakarta : EGC
- RAJADESA TAHUN 2019. Journal of Midwifery and Public Health. <https://doi.org/10.25157/jmph.v1i2.3029>
- Agustina, Susanti. 2008. Mendongeng Sebagai Energi Bagi Anak. Jakarta: Rumah Ilmu Indonesia.