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Relationship of Age with the Event of Chronic Energy Lack For Pregnant Mothers

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ABSTRACT

Background : According to WHO, every day in 2019 around 810 women died, by the end of the year 295,000 people from 94% of them were in developing countries. The direct cause of maternal death by 90% are complications that occur during delivery and after delivery. Chronic Energy Deficiency is a condition caused by an imbalance in nutritional intake between energy and protein, so that the nutrients needed by the body are not fulfilled. Based on the results of the Nutrition Status Monitoring in 2017, it was found that the percentage of pregnant women with chronic energy deficiency in Indonesia was 14.8%. The prevalence of CED in pregnant women in Indonesia based on Riskesdas data in 2018 is 17.3% and based on the Indonesian Health profile that the incidence of CED in pregnant women in 2019 is 17.9%

Objective : Knowing the relationship between age and the incidence of chronic energy deficiency (KEK) in pregnant women

Methods : Analytical with cross sectional approach. The sample in this study were all maternity mothers registered in the register from March 2021 to May 2022 as many as 224 people (total sampling).

Results : The distribution of the frequency of CED incidence in pregnant women is 366.6%. Age of pregnant women mostly aged 20-35 years 69.2%, LBW 3.6% and 3.1% bleeding. There is a significant relationship between age and the incidence of CED in pregnant women with a p value of 0.000.

Conclusions and Suggestions: There is a significant relationship between age and the incidence of CED in pregnant women. It is expected that health workers, especially midwives, provide counseling to pregnant women about nutritional needs during pregnancy.

Keywords: Age, Chronic Energy Deficiency, pregnant women

INTRODUCTION

Efforts to improve the health status of mothers and babies are one form of investment in the future. The success of maternal and infant health efforts can be seen from the Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) indicators. According to the World Health Organization (WHO), every day in 2019 around 810 women died, by the end of the year 295,000 people from 94% of them were in developing countries (WHO, 2020).

Based on WHO data in 2019, the Maternal Mortality Rate (MMR) in ASEAN countries, such as Singapore, recorded the lowest MMR at only 10 per 100,000 live births, then Thailand 20 per 100,000 live births, Brunei Darussalam 23 per 100,000 and Malaysia 40 per 100,000 live births. Meanwhile, the maternal mortality rate (MMR) in Indonesia is the highest in ASEAN, reaching 126 out of 100,000 live births. This condition is still very far from the SDGs target which sets an MMR of 70 per 100,000 live births in 2030 (WHO, 2020).

The direct cause of maternal death by 90% are complications that occur during childbirth and after delivery. These causes were bleeding (30.0%), hypertension (27.1%), infection (7.3%), prolonged labor (1.8%), abortion (1.6%) and others (40, 8%,.). Meanwhile, indirect causes of maternal death include anemia, diabetes, chronic lack of energy (KEK) by 37% and anemia (Hb <11gr) by 40% (Kemenkes RI, 2020).

Chronic Energy Deficiency (KEK) is a condition caused by an imbalance in nutritional intake between energy and protein, so that the nutrients needed by the body are not fulfilled (Kemenkes RI, 2019). In Africa and Asia, especially in the Sub-Saharan region and Southeast Asia, it is the center of global poverty and chronic malnutrition because the majority of the population lives in remote/rural areas. The

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rate of chronic malnutrition from 777 million in 2015 increased to 815 million in 2018 and it is estimated that at least 120 million of women (60%) living in South and Southeast Asia experience SEZ (WHO, 2020).

Based on the results of the Nutrition Status Monitoring (PSG) in 2015, 2016 and 2017 it was found that the percentage of pregnant women with chronic energy deficiency (KEK) in Indonesia in 2015 was 13.3%, in 2016 as many as 16.2%, in 2017 as many as 14.8% (Ministry of Health RI, 2018) The prevalence of SEZ in pregnant women in Indonesia based on Riskesdas data in 2018 is 17.3% and based on the Indonesian Health profile that the incidence of CED in pregnant women in 2019 is 17.9% (Kemenkes RI, 2019).

Sources of routine report data for 2020 collected from 34 provinces showed that from 4,656,382 pregnant women whose upper arm circumference (LiLA) was measured, it was known that around 451,350 pregnant women had LiLA < 23.5 cm (experiencing the risk of SEZ). From these calculations, it can be concluded that the percentage of pregnant women at risk of SEZ in 2020 is 9.7%, while the target for 2020 is 16% (Ministry of Health of the Republic of Indonesia, 2021).

According to the work report of the Ministry of Health of the Republic of Indonesia in 2020, the province with the percentage of pregnant women experiencing SEZ is above 16%, namely the highest province of East Nusa Tenggara 23.4%, Papua 19.6% and Maluku, 16.3% (Kemenkes RI, 2021).

Based on Riskesdas 2018, the prevalence of CED pregnant women is still high in WUS aged 15-19 years and 20-24 years (33.5% and 23.3%). Pregnancy at an early age can increase the risk of malnutrition because in adolescence there is still physical growth. The prevalence of SEZ in adolescent girls (aged 15-19 years) is 36.3%. SEZ in the adolescent group has a high risk of developing CED during pregnancy. As it is known that SEZ occurs due to lack of food intake in the long term (Ministry of Health of the Republic of Indonesia, 2021).

Pregnant women who experience SEZ will experience malnutrition, the body is easily tired, pale, weak, and experience difficulties, one of which is in the delivery process. The effect of SEZ on the delivery process can result in difficult and prolonged labor, premature delivery (premature), bleeding after delivery, and delivery by surgery (Proverawati, 2017). Pregnant women who suffer from KEK have a risk of sudden death during the perinatal period or the risk of giving birth to babies with low birth weight (LBW) (Gebre et al., 2018).

The main cause of KEK in pregnant women is that since before pregnancy the mother has experienced a lack of energy, because the needs of pregnant people are higher than mothers who are not pregnant. The causes of SEZ can be divided into two, namely direct and indirect causes. The direct causes consist of nutritional intake or consumption patterns and infections. Indirect causes are obstacles to the utility of nutrients, poor nutritional status, low body weight, poor socioeconomic, knowledge, general education and poor nutrition education, insufficient food availability, poor hygiene conditions, too many children. many, early pregnancy, low income, uneven and uneven trade and distribution, poor diet, and administration of Fe tablets (Triwahyuningsih, 2019).

Data obtained from the medical records of BPM Midwife Onna Merauke, Papua, it was found that the number of pregnant women with SEZ in 2019 was 15 people (8.33%) of the total 180 pregnant women, in 2020 the number of pregnant women with SEZ was 23 people. (11,22%) of the total number of pregnant women as many as 205 people, while in 2021 the number of pregnant women with KEK as many as 35 neonates (15.56%) of the total number of pregnant women as many as 225 people. Based on the data above, the researchers are interested in conducting a study entitled "The relationship between age and the incidence of chronic energy deficiency (KEK) in pregnant women at BPM Midwife Onna Merauke Papua in 2022"

METHOD

The research method uses analytic with cross sectional method. Data collection was carried out using secondary data, namely data obtained from register book records (medical records). The population in this study were all mothers giving birth at BPM Midwife Onna in March 2021-May 2022 as many as 224 people, the sampling technique was total sampling. The analytical method used is univariate and bivariate analysis with chi square test.

RESULTS

From the results of the study, it can be seen that from 100 respondents who experienced SEZ as many as 28 people (28%) and 72 people who did not SEZ (72%). Chronic Energy Deficiency (KEK) is a state of malnutrition or a pathological condition due to a relative or absolute deficiency of one or more nutrients (Supariasa, 2018). Chronic Energy Deficiency (CED) is a lack of energy that has a negative impact on maternal health and fetal growth and development. Pregnant women are categorized as SEZ if the Upper Arm Circumference (LILA) is < 23.5 cm (Muliarini, 2017).

Chronic energy deficiency (KEK) is a nutritional problem in pregnant women caused by a lack of nutritious food intake for a long time. Generally, someone who experiences SEZ can be a sign that they have poor nutritional status. SEZ in pregnant women causes energy to not be balanced in and out of the body, thus triggering health problems (Dimas, 2022).

The results of this study are in line with the results of Lipsiyana's research (2020) which says that the incidence of KEK in pregnant women is 57.4%. The results of this study are also supported by the results of Rosdiana Syakur's research (2020) which says that the incidence of CED in pregnant women is 44.1%. In the opinion of researchers at the Midwife Clinic Anny R Merauke Papua there are still many pregnant women who experience SEZ, this is due to the low educational background of pregnant women, the economy and lack of knowledge of pregnant women about nutrition during pregnancy. Unfulfilled nutrition in pregnant women due to economic conditions and family income that is less so that mothers do not get adequate nutritional intake needed by pregnant women and their babies, resulting in SEZ. In addition, from the educational background of the mother, some pregnant women with low educational background are difficult to obtain information and knowledge about health, especially the fulfillment of nutrition during pregnancy.

From the results of the research above, it can be seen that of the 44 respondents aged < 20 years, most of them experienced SEZ as many as 40 people (90.9%), of 155 respondents aged 20-35 years, most of them did not experience SEZ as many as 134 people (86, 5%), and of the 25 respondents aged > 35 years, most of them experienced SEZ as many as 21 people (84.0%). The results showed that the Chi-Square statistical test obtained p value. 0.000 (p.value < 0.05), which means that there is a significant relationship between age and the incidence of CED in pregnant women.

The age of the mother who is at risk of giving birth to a small baby is less than 20 years and over 35 years. Pregnant women who are less than 20 years old are said to be have a higher risk of CED. The age of pregnant women who are too young, not only increases the risk of SEZ but also affects many problems other maternal health (Stephanie and Kartikasari, 2016).

Giving birth to a child at a young or too old mother's age results in low quality of the fetus/child and will also harm the mother's health, because for a mother who is too young (less than 20 years old) there can be food competition between the fetus and the mother herself who is still in its infancy. and hormonal changes that occur during pregnancy. So that the best age is more than 20 years and less than 35 years, so it is hoped that the nutritional status of pregnant women will be better (Ika, Sukamto, and Kamalia, 2019).

As for old age, it requires a lot of energy because of its function organs that are getting weaker and have to work optimally, it requires additional sufficient energy to support an ongoing pregnancy (Kristiyanasari, 2017).

The younger and older a pregnant woman will affect the nutritional needs she needs. Young mothers really need additional nutrition because in addition to growing on their own, they also have to share with the fetus they are carrying. Meanwhile, age that requires too much energy because the function of the body's organs is weakened and is required to work optimally, so it requires enough extra energy to support the continuity of pregnancy. So that the best age is more than 20 years and less than 35 years, with the hope of better nutrition for pregnant women (Ernawati A., 2018).

The results of this study are in line with the results of Lipsiyana's research (2020) which shows that the majority of mothers who experience pregnancy with KEK are < 20 years and > 35 years as much as 57.4%. And based on the chi square test between the mother's age variable and the incidence of Chronic Energy Deficiency (KEK) obtained value = 0.000 where value < 0.05 and contingency coefficient 0.656 then H1 is accepted which means there is a relationship between maternal age and the incidence of KEK in the Balen Health Center Work Area. Bojonegoro with the strength of a strong relationship. The results of this study are also supported by Ernawati (2018) which shows that there is a relationship between the age of

pregnant women and employment status with the incidence of SEZ in pregnant women. Mothers who become pregnant at an age too young (< 20 years) or too old (> 35 years) are at risk for CED.

According to the opinion of the researcher from the results of this study, most pregnant women aged < 20 years and > 35 years mostly experienced CED, this is in accordance with the theory which says that being too young and too old is not good for pregnancy and childbirth. In addition, at the age of <20 years pregnant women do not have much experience and knowledge about the nutritional needs of pregnant women so they do not care about nutritional intake during pregnancy. Age that is too young (< 20 years) or older (> 35 years) of a pregnant mother will affect the nutritional needs needed. A young age needs a lot of additional nutrition because in addition to being used for growth and development itself, it must also be shared with the fetus that is in the womb. While old age requires additional energy, because organ function is getting weaker, so it requires additional energy. In respondents aged 20-35 years, most of whom do not experience SEZ, this is because mothers aged 20-35 years are of productive age who already have experience and knowledge of how to fulfill nutrition during pregnancy, so that pregnant women can meet nutritional needs during pregnancy. .

From the results of the study, it can also be seen that SEZ in pregnant women has an impact on childbirth and babies born, namely the incidence of LBW and bleeding. The results showed that 3.6% of KEK pregnant women gave birth to LBW babies and 3.1% of SEZ pregnant women experienced bleeding.

CONCLUSION

The distribution of the frequency of CED incidence in pregnant women is 36.6% and those who are not CED are 63.4%. The distribution of the age frequency of pregnant women was mostly aged 20-35 years 69.2%, the incidence of LBW was 3.6% and bleeding was 3.1%. There is a significant relationship between age and the incidence of CED in pregnant women with a p value of 0.000

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