

Characteristics of Pregnant Women who Experienced Chronic Energy in the Working Area of Puskesmas Rancabali, Bandung District

Yanyan Mulyani^{1*}, Siti Neneng Sri²

^{1,2}Midwifery Diploma Program, Faculty of Health Sciences, Bhakti Kencana University Bandung

¹yanyan.mulyani@bku.ac.id*, ²nengsrim872@gmail.com

*Correspondence author

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Background : Energy is the most important nutritional factor during pregnancy that can affect the birth weight of the baby. Pregnant women who experience the risk of chronic energy deficiency (KEK) will cause several problems, both for the mother and the fetus. The purpose of this study was to determine the characteristics of pregnant women who experience chronic energy deficiency in the working area of the Rancabali Health Center, Bandung Regency. **Method :** Research design using descriptive. The population was 274 people, the sample was 73 people and the sample was taken by simple random sampling. Primary data collection is interviews using a checklist sheet with data analysis using univariate analysis. **Results :** The results showed that more than half occurred at the age <20 years as many as 41 people (56.2%), more than half of them with low education as many as 53 people (72.6%), more than half with primigravida parity of 52 people (71, 2%) and more than half with low income as many as 53 people (72.6%). **Conclusion :** The conclusion is that more than half of the incidence of KEK occurs at age <20 years, low education, primigravida parity and low income. Suggestions for the health center for health education regarding nutrition, especially for pregnant women and also to increase the socialization of the Supplementary Feeding program.

INTRODUCTION

Chronic energy deficiency (KEK) is the condition of pregnant women who suffer from a prolonged (chronic) shortage of food with various health problems in pregnant women (Sayogo, 2013).

Pregnant women who experience the risk of chronic energy deficiency (KEK) will cause several problems, both for the mother and the fetus. KEK in pregnant women can cause risks and complications to the mother, including: anemia, bleeding, the mother's weight does not increase normally, and infection disease. Meanwhile, the effect of KEK on the labor process can result in difficult and prolonged labor, preterm labor, bleeding after delivery, and labor with surgery tends to increase. KEK of pregnant women can affect the growth process of the fetus and can cause miscarriage, abortion, stillbirth, neonatal death, congenital defects, anemia in infants, intrapartum asphyxia (stillbirth in the womb), birth with low birth weight (LBW) (Sandjaja, 2013).

The proportion of women of childbearing age (WUS) with chronic energy deficiency, namely WUS with an upper arm circumference of less than 23.5 cm has increased with the proportion of pregnant women aged 15-19 years with KEK (Chronic Energy deficiency) of 33.5% in years 2010 increased to 38.5% in 2013. In addition, the increase that occurred in non-pregnant women aged 15-19 years from 30.9% in 2010 increased to 46.6% in 2013 (Riskesdas, 2013).

Determination of SEZ status is by using the circumference of the upper arm or known as LILA. LILA measurement is an easy early detection method that can be implemented by the general public, to determine the high risk of KEK. KEK women in Indonesia are said to be at risk if the LILA measurement results are less than or equal to 23.5 cm or the red part of the LILA band, if the measurement results are more than 23.5 cm then there is no risk of suffering from KEK. Meanwhile,



the Body Mass Index (BMI) is only associated with the measurement of diabetes mellitus because it is associated with obesity (Supariasa, 2012).

The main factor of KEK in pregnant women is malnutrition because the mother suffers from a prolonged lack of food nutrition (Helena, 2013). Apart from the main cause of KEK, the characteristics of mothers with KEK need assessment because it is a high risk factor for KEK. Characteristics that influence SEZ in pregnant women include low income, low education, pregnancy distance that is too close to cause poor nutritional status in pregnant women, the number of babies born (parity), the first gestational age that is too young or still a teenager, usually has a lower nutritional status if the highest incidence of KEK in pregnant women is in the working area of Puskesmas Rancabali as many as 274 people (20.8%) of 1282 pregnant women, Paseh Puskesmas as many as 267 people (18, 5%) of 1438 pregnant women, Puskesmas Kertasari 140 people (11.4%) out of 1219 pregnant women, Puskesmas Bojongsoang as many as 92 people (11.2%) out of 819 pregnant women and Puskesmas Cikancung as many as 89 people (8.3%) of 1074 pregnant women (Dinkes Kab. Bandung, 2017). Interviews with the head of the puskesmas at Puskesmas Rancabali found that health workers were confirmed to immediately provide counseling if they found a mother who had KEK. This was not balanced with food intake in sufficient quantities and environmental temperature was related to the condition of releasing body heat which had to be replaced with the results of body metabolism which in the end greater energy input is required (Ari and Rusilanti, 2013). 2%) of 819 pregnant women and the Cikancung Health Center as many as 89 people (8.3%) out of 1074 pregnant women (Dinkes Kab. Bandung, 2017). Interviews with the head of the puskesmas at Puskesmas Rancabali found that health workers were confirmed to immediately provide counseling if they found a mother who had KEK. This was not balanced with food intake in sufficient quantities and environmental temperature was related to the condition of releasing body heat which had to be replaced with the results of body metabolism which in the end greater energy input is required (Ari and Rusilanti, 2013). 2%) of the 819 pregnant women and the Cikancung Health Center as many as 89 people (8.3%) out of 1074 pregnant women (Dinkes Kab. Bandung, 2017). Interviews with the head of the puskesmas at Puskesmas Rancabali found that health workers were confirmed to immediately provide counseling if they found a mother who had KEK. This was not balanced with food intake in sufficient quantities and environmental temperature was related to the condition of releasing body heat which had to be replaced with the results of body metabolism which in the end greater energy input is required (Ari and Rusilanti, 2013).

Based on data from the Bandung Regency Health Office in 2017, it was obtained The data above shows that in 2017 the work area of the Puskesmas with the highest incidence of KEK in pregnant women was in the work area of the Puskesmas Rancabali. Based on this background, even though the health center program in the form of counseling has been carried out, there are still many KEK, the authors conducted a study entitled "Description of the characteristics of pregnant women who experience chronic energy deficiency in the work area of Puskesmas Rancabali, Bandung district in 2018".

RESEARCH METHODOLOGY

Research design

The research design used in this study is descriptive research, which is to determine the characteristics of pregnant women who experience chronic energy shortages in the work area of the Rancabali Health Center, Bandung district in 2018.

Population

The population in this study were KEK patients who were registered at the Rancabali Health Center until December 2017, namely 274 people.

Sample

The number of samples used was 73 people. The sampling method used was simple random sampling, namely simple random sampling.

Data collection technique

The data collection technique is in the form of primary data and secondary data. Primary data is in the form of direct measurements of mothers who have KEK using instruments using the LILA band.

RESEARCH RESULT

Table 4.1 Description of the Age of Pregnant Women Experiencing Chronic Energy Deficiency in the Work Area of the Rancabali Health Center, Bandung Regency in 2018

No.	Age	Frequency	Percentage
1	<20 years	41	56.2
2	20-35 years	24	32.9
3	> 35 years	8	10.9
Total		73	100

Table 4.2 Education Overview of Pregnant Women Who Experience Chronic Energy Deficiency in the Work Area of the Rancabali Health Center, Bandung Regency in 2018

No.	Education	Frequency	Percentage
1	Low (SD, SMP)	53	72.6
2	High (SMA, PT)	20	27.4
Total		73	100

Table 4.3 Description of Parity of Pregnant Women Who Experience Chronic Energy Deficiency in the Work Area of the Rancabali Health Center, Bandung Regency in 2018

No.	Parity	Frequency	Percentage
1	Primigravida (1 child)	52	71.2
2	Multigravida (2-4 children)	19	26.1
3	Grandemultigravida (≥ 5 children)	2	2.7
Total		73	100

Table 4.3 Income Description of Pregnant Women Who Experience Chronic Energy Deficiency in the Work Area of the Rancabali Health Center, Bandung Regency in 2018

No.	Income	Frequency	Percentage
1	<UMR	53	72.6
2	\geq UMR	20	27.4
Total		73	100

DISCUSSION

Age of Pregnant Women with Chronic Energy Deficiency

The age of pregnant women also greatly affects the growth and development of the fetus and the mother herself. The younger and older the pregnant woman also affects the fulfillment of the necessary nutritional needs. Young women (less than 20 years old) need additional nutrition because in addition to being used for their own growth and development, they also have to share with the fetus they are carrying. Meanwhile, older people (more than 35 years) need a lot of energy because the organ function is weakening and it is required to work optimally, so it needs additional energy which is sufficient to support an ongoing pregnancy (Maryam. 2016).

One of the factors that can cause chronic energy deficiency is age <20 years. This is related to the maturity of the reproductive system at that age a woman is prohibited from getting pregnant because her reproductive organs are less than perfect as well as a lack of maturity in thinking. Apart from that, KEK occurs a lot at age <20 years because pregnancy in young mothers causes nutritional competition between the fetus and the mother from foods consumed by mothers who are still in their infancy.

Pregnant women aged between 20-35 years will be better prepared both physically and spiritually for pregnancy. Because at that age the nutritional condition of a mother is better than at the age of less than 20 years and more than 35 years (Surasih, 2013).

At that age, the mother tends to have a lot of activities without paying attention to her food intake and pregnancy health, so she falls ill. While older people (more than 35 years old) need a lot of energy because the organ function is weakening and it is required to work optimally, it is necessary to have enough energy to support an ongoing pregnancy (Maryam, 2016).

One of the factors that can cause chronic energy deficiency is age > 35 years. This is related to the age at which a woman has a high risk of pregnancy due to weakened organ function. The role of midwives in dealing with the age characteristics of KEK mothers is to provide information to women of childbearing age to be able to get pregnant at a non-risk age, namely the age of 20-35 years, and for this age it is recommended that mothers delay pregnancy and for those aged > 35 years it is recommended that the mother stop pregnancy with the way of family planning is steady.

Education of Pregnant Women Who Experience Chronic Energy Deficiency

More than half of pregnant women who experience KEK have low education as many as 53 people (72.6%). The higher the level of education of a person, the easier it is to receive information so that the more knowledge one has about nutrition during pregnancy. Lack of education will hinder the development of one's attitude towards newly introduced values, including regarding nutrition during pregnancy.

One of the efforts to increase the knowledge of pregnant women about pregnancy can be accessed through gadgets using social networks or information from the internet. Even mothers with low education based on the results of the research all have gadgets. Although the gadgets that are owned can make it easy to access information about the importance of nutrition in pregnancy in preventing SEZ, according to researchers, it is wrong to use it, which is only used to communicate between friends in cyberspace without looking for information about the nutrition needed during pregnancy.

The role of midwives in addressing the characteristics based on education is that the Puskesmas collaborates cross-sectorally with schools to provide health education to children and families regarding the importance of high education in an effort to improve health status.

Parity of Pregnant Women with Chronic Energy Deficiency

Mothers with primigravida parity usually experience emesis gravidarum so that it will be difficult for the mother to receive food intake so that the nutritional reserves in the mother's body are depleted. For parity the best is 2 times (Surasih, 2013).

One of the factors at risk of experiencing KEK is primigravida parity as evidenced by the results of parity of pregnant women who experience KEK in the working area of Puskesmas Rancabali more than half of them with primigravida parity of 52 people (71.2%).

According to researchers, the incidence of KEK in primigravida mothers is partly caused by the incidence of emesis gravidarum and lack of food intake. Primigravida parity is a newly pregnant mother, so the mother's experience of the importance of nutrition during pregnancy can be said to be lacking because she has never had any experience with pregnancy. The role of midwives in overcoming parity problems that affect them is by advising mothers to have family planning.

Income of Pregnant Women Who Have Chronic Energy Deficiency

Family income is one of the factors that can influence the incidence of KEK, as evidenced by the results of the research which shows that more than half of the income of pregnant women who

experience KEK in the working area of Puskesmas Rancabali is with a low income of 53 people (72.6%).

The family income factor is an important factor in meeting primary needs. Family income earned by a family plays a very important role in fulfilling primary needs which will later have an impact on the health status of the family. Family income determines the purchasing power of food in a family, including the quality and quantity of food that will be consumed by pregnant women. However, with low income conditions, it is possible to get nutritious food intake, this is because there are many foods that are not necessarily expensive but very nutritious, especially for pregnant women. Therefore, it is necessary to increase knowledge for pregnant women about nutritious food in reducing the risk of KEK in pregnancy.

CONCLUSIONS AND SUGGESTIONS

Conclusion

The conclusions in this study are 1) The age of pregnant women who experience KEK is more than half of those aged <20 years; 2) Education of pregnant women who experience KEK is more than half of them with low education; 3) Parity of pregnant women who experience KEK is more than half of it with primigravida parity; and 4) The income of pregnant women who experience KEK is more than half of those with low economies.

Suggestion

Can be a reference material for other researchers in further researching the incidence of KEK, such as assessing the nutritional intake consumed by pregnant women and the pattern of pre-pregnancy habits.

References

- Abdul Syukur. 2016. *Faktor-faktor yang Menyebabkan Kurang Energi Kronis (KEK) Pada Ibu Hamil*. Jurnal Jurusan Kebidanan, Poltekkes Kemenkes Kaltim Samarinda,
- Ari dan Rusilanti. 2013. *Gizi Terapan*. Jakarta: Remaja Rosdakarya
- Arikunto. 2013. *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta.
- Arisman. 2010.. *Gizi Dalam Daur Kehidupan*. Jakarta, EGC.
- Atikah dan Wati. 2012. *Ilmu Gizi untuk Keperawatan dan Gizi Kesehatan*. Yogyakarta: Nuha Medika.
- Bobak. 2014. *Keperawatan Maternitas*, Edisi 4. Jakarta: EGC
- Dewi. 2011. *Asuhan Kehamilan untuk Kebidanan*. Jakarta: Salemba Medika
- Dinkes Kab. Bandung. 2017. *Angka Kejadian KEK di Puskesmas Kabupaten Bandung*. Bandung: Dinkes Kab. Bandung.
- Diza Fathamira Hamzah. 2016. *Analisis Faktor yang Mempengaruhi Kejadian Kekurangan Energi Kronis Pada Ibu Hamil Di Wilayah Kerja Puskesmas Langsa Kota Langsa Aceh*. Aceh: Universitas Sains Cut Nyak Dhien.
- Eka Martiyani. 2016. *Factors Related to The Incidence of Chronic Energy Deficiency in Pregnant Women at the Clinic*. Surabaya: Jurnal Nasional FK Universitas Wijaya Kusuma
- Elizabeth. 2012. *Buku Saku Patofisiologi*. Jakarta: EGC

- Hanafi. 2015. *Keluarga Berencana dan Kontrasepsi*. Jakarta : Pustaka Sinar Harapan
- Handayani. 2013. *Analisis Faktor Yang Mempengaruhi KEK pada Ibu Hamil*. Jurnal Involusi Kebidanan
- Helena. 2013. *Gambaran Pengetahuan Gizi Ibu Hamil Trimester Pertama dan Pola Makan dalam pemenuhan Gizi*. [www. repository.usu.ac.id](http://www.repository.usu.ac.id).
- Indriany. 2014. *Hubungan antara Tingkat Sosial Ekonomi dengan Kejadian Kek pada Ibu Hamil di Kecamatan Sedayu Kabupaten Bantul*. Yogyakarta: UNIVERSITAS Gadjah Mada.
- Kemenkes RI. 2015. *Angka Kem atian Ibu Tahun 2015*. Jakarta: Kemenkes RI
- Lubis. 2011. *Hubungan Pola Asuh Ibu dengan Status Gizi Anak Balita di Wilayah Kerja Puskesmas Pantai Cermin Kecamatan Tanjung Pura Labupaten Langka*. Fakultas Kesehatan Masyarakat USU. Diakses di repository.usu.ac.id
- Manuaba. 2014. *Ilmu Kebidanan, Penyakit Kandungan, dan KB*. Jakarta: EGC
- Maryam. 2016. *Gizi dalam kesehatan reproduksi*. Jakarta. Penerbit Salmeba Medika
- Mayasari. 2014. *Faktor-Faktor yang Berhubungan dengan Kekurangan Energi Kronis Pada Ibu Hamil*.www. journal.unhas.ac.id.
- Miyata. 2012. *Nutrisi Janin & Ibu Hamil*.Yogjakarta: Nuha Medika.
- Mochtar. 2013. *Sinopsis Obstetri: Obstetri Fisiologi, Obstetri Patologi. Edisi III*. Jakarta: EGC
- Muliawati. 2012. *Faktor Penyebab Ibu Hamil Kurang Energi Kronis di Puskesmas Sambi, Kecamatan Sambi, Kabupaten Boyolali Tahun 2012*. Boyolali; 2013. Vol.3; No.3.2013.