Literasi Kesehatan Husada: Jurnal Informasi Ilmu Kesehatan
Vol. 7, No. 3, October 2023

Original Articles

THE RELATIONSHIP OF THE NUTRITIONAL STATUS OF PREGNANT WOMEN AND STUNTING IN TODDLER AT THE HUSADA CLINIC, JOMBANG

Ike Kristian [1*], Semi [2], Warda Anil Masyayih [3]

[1] Bachelor of Nutrition Study Program, College of Health Sciences Husada Jombang
[2] Midwife Profession Study Program, College of Health Sciences Husada Jombang
[3] Bachelor of Midwifery Study Program, College of Health Sciences Husada Jombang

Correspondence:
Ike Kristian
Bachelor of Nutrition Study Program, College of Health Sciences Husada Jombang
e-mail: kristy050689@gmail.com

DOI: https://doi.org/10.60050/lkh.v7i3.14

ABSTRACT

Background: The occurrence of failure to thrive in children under five is caused by chronic malnutrition so that children under five are short according to their age, which is usually called stunting. One of the factors causing stunting is pregnancy. Pregnant women with CED (Chronic Energy Deficiency) cause the reserves of nutrients needed by the fetus in the womb to be weak.
Objective: This study aimed to determine the relationship between the nutritional status of pregnant women and stunting in toddlers at the Husada Clinic, Jombang.
Method: This research was conducted in July at the Husada Clinic, Jombang. This type of research is retrospective analytical. The population in this study was 55 toddlers with a sample of 33 toddlers. The sampling technique is simple random sampling. The independent variable in this research is the Nutritional Status of Pregnant Women, the dependent variable is Stunting in Toddlers. The instrument in this research is a questionnaire.
Results: The results of the research from 33 respondents at the Husada Clinic showed that the majority of toddlers, 59.22%, had the status of pregnant women with CED (Chronic Energy Deficiency). The majority of toddlers, 62.14%, experienced stunting in the short category. Data analysis from the Chi-Square correlation test and asymptotic significance (2-sided) resulted in a p-value of 0.02 < 0.05. The conclusion is that there is a relationship between the nutritional status of pregnant women and stunting in toddlers at the Husada Clinic, Jombang.
Conclusion: Based on this research, it can provide input and information to health workers to provide education about nutrition for pregnant women through activities, namely pregnant women's classes and posyandu so that health workers play a big role in efforts to prevent stunting.

Keywords: Pregnant Women, Nutritional Status, Stunting, Toddlers.

INTRODUCTION

Stunting is a child growth and development problem which is characterized by the child's height not increasing significantly according to his age or when compared to the height the child had when he was just born. Chronic malnutrition problems caused by insufficient nutritional intake over a long period of time due to feeding. which does not meet nutritional needs. Malnutrition at an early age increases infant and child mortality rates, causing sufferers to get sick easily and have less than optimal body posture as adults (Millennium Challenge Account Indonesia, 2015). Stunting occurs when the fetus is still in the womb and only appears when the child is two years old. Stunting in toddlers needs special attention because it can hinder children's physical and mental development. Stunting is associated with an increased risk of morbidity and death as well as hampered growth of motor and mental abilities and also carries a risk of decreased intellectual abilities, productivity and increased risk of degenerative diseases. Stunted children also tend to be more susceptible to infectious diseases, so they are at risk of experiencing a decline in the quality of learning at school and are at risk of being absent more often, resulting in long-term economic losses for Indonesia (Kartikawati, 2011 in Indrawati, 2016). Stunting in children under five is a consequence of several factors that are often associated with poverty, including nutrition, health, sanitation and the environment.

Globally in 2017, 22.2% or around 150.8% of millions of children under five experienced stunting. This figure has decreased in 2018, namely 21.9% (149 million children under five), and continues to decline in 2019, namely 21.3% (144 million toddlers). Toddlers with Height according to Age index measurements entered were 49.2% of the existing target toddlers. Of the target toddlers in the entry, it was found that 349,157 (3.0%) toddlers were very short and 980,565 (8.5%) toddlers were short. In 2019, stunting in East Java was 26.85%, and decreased in 2020 by 25.64 and decreased again in 2021 by 23.5% (JATIM Health Office, 2020). Of the 39,100 toddlers aged 0-59 months who were weighed, there were 6,196 malnourished toddlers (9.4%), 8,232 short toddlers (12.5%) and 5,416 underweight toddlers (8.3%). According to survey data on the Nutritional Status of Indonesian Toddlers (SSGBI) in 2021, the prevalence of stunting is still at 25.1%. (Dinkes, 2022). The incidence rate in 2022 at the Husada Clinic, Jombang will reach 167 children under five (30.7%) (Health Service, 2022).

Based on data sources from routine reports in 2020 collected from 34 provinces, it is known that of the 4,656,382 pregnant women whose upper arm circumference (LILA) was measured, it is known that around 451,350 pregnant women had LILA <23.5 cm (at risk of CED). From these calculations it can be concluded that the percentage of pregnant women at risk of CED in 2020 is 9.7%, while the target for 2020 is 10%. This condition illustrates that the achievement of the target for pregnant women with CED in 2020 has exceeded the target of the Ministry of Health's strategic plan for 2020, namely the target achievement indicator for pregnant women with chronic energy deficiency (CED) by 10%.

Based on data sources from routine reports in 2020 collected from 34 provinces, it is known that of the 4,656,382 pregnant women whose upper arm circumference (LILA) was measured, it is known that around 451,350 pregnant women had LILA <23.5 cm (at risk of CED). From these calculations it can be concluded that the percentage of pregnant women at

risk of CED in 2020 is 9.7%, while the target for 2020 is 10%. This condition illustrates that the achievement of the target for pregnant women with CED in 2020 has exceeded the target of the Ministry of Health's strategic plan for 2020, namely the target achievement indicator for pregnant women with chronic energy deficiency (CED) by 10%.

METHODS

Study Design

This study used a retrospective analytical research design.

Settings

This research was carried out in July 2023 at the Husada Jombang Clinic.

Research Subject

The population in this study was 55 toddlers with a sample of 33 toddlers. The sampling technique is simple random sampling.

Instrument

The independent variable in this research is the Nutritional Status of Pregnant Women, the dependent variable is Stunting in Toddlers. The instrument in this research used a questionnaire.

Data Collection

The data collection process for this research began with arranging permits for research implementation, both from the College of Health Sciences of Husada Jombang and the Husada Clinic, Jombang. After obtaining permission for implementation, the researchers asked to see the data available at the Husada Clinic, Jombang regarding the nutritional status of pregnant women and the incidence of stunting that had been recorded there.

Data Analysis

To determine the relationship between the two research variables, the researchers analyzed the data using the Chi Square Correlation Test with a significance level of $\alpha = .05$.

Ethical Consideration

The implementation of this research has received permission from the College of Health Sciences of Husada Jombang and the Husada Clinic, Jombang.

RESULTS

Characteristics of Respondent

Table 1. Distribution Frequency based on Toddler Gender, Birth Weight, Mother's Type of Delivery, Exclusive Breastfeeding, Mother's Age, Mother's Occupation, Mother's Latest Education, Mother's Parity, Pregnant Mother's Nutritional Status, and Toddler Stunting Status at the Husada Jombang Clinic in July 2023.

Characteristics of Respondent	Frequency (f)	Percentage (%)
Toddler Gender		
Male	14	42.42
Female	19	57.58
Total	**33**	**100.00**

Characteristics of Respondent	Frequency (f)	Percentage (%)
Birth Weight		
< 2500 gram	15	45.45
> 2500 gram	18	54.55
Total	**33**	**100.00**
Mother's Type of Delivery		
Normal	19	57.58
Sectio Caesar	14	42.42
Total	**33**	**100.00**
Exclusive Breastfeeding		
Exclusive Breastfeeding	21	63.64
Non-Exclusive Breastfeeding	12	36.36
Total	**33**	**100.00**
Mother's Age		
< 20 years	9	27.27
20-35 years	6	18.18
> 35 years	18	54.55
Total	**33**	**100.00**
Mother's Occupation		
Housewife	18	54.55
Self-employed	3	9.09
Farmer	7	21.21
Private	5	15.15
Total	**33**	**100.00**
Mother's Latest Education		
Elementary School	7	21.21
Junior High School	12	36.36
Senior High School	11	33.34
University	3	9.09
Total	**33**	**100.00**
Mother's Parity		
1	18	54.55
2 until 4	10	30.30
5	5	15.15
Total	**33**	**100.00**
Pregnant Mother's Nutritional Status		
CED	21	63.64
Non-CED	12	36.36
Total	**33**	**100.00**
Toddler Stunting Status		
Short	24	72.73
Very Short	9	27.27
Total	**33**	**100.00**

Sources: Primary Research Data, 2023.

Based on the research data above, it was found that the most common gender of toddlers was female as many as 19 respondents (57.58%) with a birth weight > 2500 grams as many as

18 respondents (54.55%). Most of the respondents gave birth normally, 19 respondents (57.58%). For the history of exclusive breastfeeding, the majority of respondents gave exclusive breastfeeding, 21 respondents (63.64%). Most of the mothers' ages in this study were > 35 years as many as 18 respondents (54.55%). The majority of mothers' jobs in this study were housewives (18 respondents (54.55%). The highest level of maternal education was Junior High School with 12 respondents (36.36%). The parity of mothers in this study was mostly the first child, 18 respondents (54.55%). The nutritional status of pregnant women in this study was mostly CED with 21 respondents (63.64%) with stunting status for toddlers as many as 24 respondents (72.73%).

Analysis of the Relationship between the Nutritional Status of Pregnant Women and Stunting in Toddlers at the Husada Clinic, Jombang Using the Chi Square Correlation Test

Table 2. Analysis of the Relationship between the Nutritional Status of Pregnant Women and Stunting in Toddlers at the Husada Clinic, Jombang in July 2023 Using the Chi Square Correlation Test.

Nutritional Status of Pregnant Women	Stunting in Toddler				Total	
	Short		Very Short		f	%
	f	%	f	%		
Pregnant Women with CED	14	42.42	7	21.22	21	63.64
Pregnant Women Non-CED	10	30.30	2	6.06	12	36.36
p-value = .020						

Sources: Primary Research Data, 2023.

The results of data analysis in this study used statistical tests using the Chi-Square correlation test and asymptotic significance (2-sided) with a significance level of $\alpha = 0.05$ and the calculations were carried out using the SPSS 25 For Windows software application. The results were *p*-value.020 r = 0.3008 (0.3).

DISCUSSION

Identification of the Nutritional Status of Pregnant Women in Toddlers in the Husada Clinic Working Area, Jombang

Based on the research data above, it is known that the nutritional status of mothers during pregnancy at the Husada Clinic, Jombang who experienced CED was 61 respondents (59.22%). This is caused by the age at risk of pregnancy, namely less than 20 years, namely 9 mothers of toddlers (43.69%). According to Proverawati (2017), pregnancies less than 20 years old are not biologically optimal, their emotions tend to be unstable, they are mentally immature so they easily experience shock which results in a lack of attention to meeting nutritional needs during pregnancy. Based on Kurnia's research (2014), mothers who experience malnutrition are at risk of giving birth to babies who are malnourished. Fetuses who experience malnutrition in the

womb are also at greater risk of being born stunted. According to Arisman (2015) Upper Arm Circumference < 23.5 cm is caused by a lack of food intake obtained by the mother during pregnancy. Mothers with LILA < 23.5 cm will have an impact on pregnancy, especially on fetal growth in the womb. In this way, pregnant women who are known from the start to experience chronic energy deficiency can be immediately treated by health workers, so that intervention can be carried out as early as possible. The supplementary feeding program (PMT) intervention given to pregnant women can improve their nutritional status, including increasing the baby's weight and baby body length. The existence of a supplementary feeding program (PMT) for pregnant women who suffer from chronic lack of energy is one form of intervention provided so that the baby in the womb can continue to grow and develop well. Based on the opinion of Waryana (2016), the nutritional status of pregnant women is measured by measuring the Upper Arm Circumference (LILA). According to Ariyani (2017) LILA measurement is to find out whether someone is suffering from Chronic Energy Deficiency (CED). The use of BMI can only apply to adults, namely > 18 years and not pregnant). The Indonesian Ministry of Health (2014) states that visits during pregnancy are carried out at least 4 times, LILA measurements are carried out during the K1 pregnancy check-up. K1 is the mother's first contact with a health worker to get a pregnancy check in the first trimester, where the gestational age is 1-12 weeks.

Identification of Stunting in Toddlers in the Husada Clinic Working Area, Jombang

Based on research data, it is known that stunting occurs in toddlers in the Husada Clinic Working Area. The research results show that the majority of toddlers are short, namely 24 toddlers (62.14%). According to Sutarto, Mayasari, & Indriyani (2018) Stunting is failure to grow in children under five caused by chronic malnutrition so that children under five are too short for their age.

According to the Center for Data and Information, Ministry of the Republic of Indonesia (2018), stunting in toddlers is a chronic nutritional problem caused by many factors such as socio-economic conditions, nutrition of pregnant women, pain in babies, and lack of nutritional intake in babies. According to Aridiyah, Rohmawati, & Ririanty (2015) toddlers are an age group at risk of experiencing stunting. Malnutrition The age group of 25 to 36 months is the age group with the most stunted toddlers. According to Welasasih & Wirjayatmadi (2016), stunting nutritional status is also known as chronic malnutrition, which describes a disturbance in height growth that lasts for quite a long period of time. Worsening nutritional conditions of children due to infectious diseases can cause a decrease in appetite, resulting in reduced nutritional intake even though children actually need more nutrients.

The impacts that cause stunting are not only physical disorders, but also affect the development pattern of the brain, and toddlers who experience stunting when they reach adulthood will experience the opportunity to contract chronic diseases such as diabetes, cancer, stroke and hypertension and possibly have the potential to reduce productivity in their productive age. Apart from that, stunting can cause irreversible damage to a child's development, the child will never be able to do or learn as much as other children do (Trihono, 2015)

Based on the results of research that has been conducted, factors that cause stunting in toddlers include maternal nutritional status during pregnancy, feeding patterns, nutritional factors for babies and toddlers, economic factors, infection factors and sanitation factors. Stunting that occurs at an early stage of life or at an early age can have detrimental impacts on children, both in the short and long term. Specifically, if the growth disturbance begins at 1000 HPK (First Day of Life calculated from conception) until the age of two years. Basically, stunting in toddlers cannot be cured, but efforts can be made to improve nutrition to improve their quality of life. Stunting is also one of the causes of stunted height in children, making them lower than children their age. It is not uncommon for people to think that short stature is a genetic factor and has nothing to do with health problems. In fact, genetic factors have a small influence on a person's health condition compared to environmental factors and health services. Usually, stunting begins to occur when the child is still in the womb and becomes visible when they are two years old.

Analysis of the Relationship between the Nutritional Status of Pregnant Women and Stunting in Toddlers at the Husada Clinic, Jombang

The results of data analysis in this study used statistical tests using the Chi-Square correlation test and asymptotic significance (2-sided) with a significance level of $\alpha = 0.05$ and the calculations were carried out using the SPSS 25 For Windows software application. The results were *p*-value.020 r = 0.3008 (0.3). This shows that the value $\rho < \alpha$ ($0.021 < 0.05$) which means that H0 is rejected and H1 is accepted, namely that there is a relationship between the nutritional status of pregnant women and stunting.

The research results showed that the majority of stunting was due to the nutritional status of mothers with CED, namely 64 toddlers (62.14%), while a small proportion of stunting occurred in toddlers whose nutritional status did not have CED, namely 39 toddlers (37.86%).

In the opinion of Setyawati et al (2016) who stated that the nutritional status of the mother before and during pregnancy affects the growth of the fetus she is carrying. If the mother's nutritional status is normal before and during pregnancy, she is likely to give birth to a healthy, full-term baby with normal weight and length. In other words, the quality of the baby born really depends on the mother's nutritional status before and during pregnancy. Pregnant women with CED can affect the health of the fetus they are carrying, which is likely to experience stunting (Tri, 2015). Nutritional intake during pregnancy is an important factor for the growth and development of children and is also supported by the child's growth and development process which is met by the availability of adequate nutrients in the right amount, quality, combination and timing.

CONCLUSION

From the results of this research, it can be concluded that: the majority of pregnant women at the Husada Clinic, Jombang in 2023 experienced CED, the majority of toddlers at the Husada Clinic, Jombang in 2023 experienced stunting in the short category, there is a relationship between the nutritional status of pregnant women and stunting at the Husada Clinic, Jombang in 2023 as much as 64%.

SUGGESTION

The suggestions given are as follows: For research sites, it is hoped that medical record data can be accessed via computer so that the data can be utilized optimally and is useful for legal, knowledge and research purposes.

For officers, it is hoped that they can provide input and information to health workers to provide education about nutrition for pregnant women through activities, namely pregnant women's classes and posyandu so that health workers play a big role in efforts to prevent stunting.

For respondents, it is hoped that mothers can pay attention to nutritional status during pregnancy so that they can prevent stunting in future children.

LIMITATION

Researchers have tried to conduct research carefully. However, researchers realize that there are still limitations or shortcomings in the research, including: The sample used in this research is still limited to the Husada Clinic work area, so the results of this research may be different when compared with other regions in Indonesia.

REFERENCES

Ai Yeyeh, Rukiyah, dkk. 2011. Asuhan Kebidanan 1. Jakarta: CV Trans info media.

Anugraheni, H.S. (2012). Faktor Risiko Stunting pada Anak Usia 12-36 Bulan di Kecamatan Pati, Kabupaten Pati. Universitas Diponegoro.

Aridiyah, Rohmawati, Ririanty. (2015). Faktor-faktor yang Mempengaruhi Stunting pada Anak Balita di Wilayah Pedesaan dan Perkotaan. Jurnal Pustaka Kesehatan. 3(1): 166

Arisman. (2015). *Gizi Dalam Daur Kehidupan*. Jakarta: EGC.

Ariyani. (2017). Validitas Lingkar Lengan Atas Mendeteksi Risiko Kekurangan Energi Kronis pada Wanita Indonesia. *Jurnal Kesehatan Masyarakat Nasional*. Vol. 7 No. 2, September 2012.

Departemen Agama RI. (2008). *Al-Qur'an dan terjemahnya*. Bandung: PT Syaamil Cipta Medika.

Indrawati, Sri and Warsiti, Warsiti (2017) hubungan pemberian asi esklusif dengan stunting pada anak usia 2-3 tahun di desa karangrejek wonosari gunungkidul. *skripsi thesis, universitas 'aisyiyah* Yogyakarta.

Dewi, Vivian Nanny Lia. 2013. Asuhan Neonatus Bayi dan Anak Balita.Jakarta: Salemba Medika.

Dinkes. *Profil Kesehatan 2020*. Tuban: Dinas Kesehatan.

Dinkes Jatim. 2020. *Profil Kesehatan Kesehatan Provinsi Jawa Timur 2020*. Surabaya: Dinas Kesehatan Jawa Timur.

Dwiwardani, Robeta Lintang. 2017. Analisis Faktor Pola Pemberian Makan pada Balita Stunting Berdasarkan Teori Transcultural Nursing. Sripsi. Surabaya: Universitas Airlangga diunduh pada 12 November 2019 dari repository.unair.ac.id.

Fikawati, S., dkk. 2015. Gizi Ibu dan Bayi. Jakarta: Rajawali Pers.

Fitri, L (2018). Hubungan BBLR Dan ASI Ekslusif Dengan Stunting Di Puskesmas Lima Puluh Pekanbaru. Jurnal Endurance, 3(1), 131-137.

Haryono R, Setianingsih, S. 2014. Manfaat Asi Eksklusif Untuk Buah Hati Anda. Yogyakarta: Gosyen Publising.

Kementrian Kesehatan RI. 2020. *Profil Kesehatan Indonesia 2019*. Jakarta: Kemenkes RI.

Sr. Anita Sampe, SJMJ1, Rindani Claurita Toban2, Monica Anung Madi. 2020. Sekolah Tinggi Ilmu Kesehatan Stella Maris Makssar.

Mufdlilah. (2017). Kebijakan Pemberian ASI Eksklusif Kendala dan Komunikasi. Yogyakarta: Nuha Medika.

Ni'mah & Nadhiroh. (2015). Faktor Yang Berhubungan Dengan Stunting Pada Balita. *Media Gizi Indonesia*. Vol. 10, No. 1. Januari–Juni tahun 2015: 13–19.

Notoatmodjo, Soekidjo (2018). *Metodologi penelitian kesehatan*.Jakarta: Rineka Cipta.

Nugroho, Taufan. (2011). Buku ajar obstetric untuk mahasiswa kebidanan.Yogjakarta : Nuha Medika.

Proverawati, A. & Asfuah S., Siti. 2017. Buku Ajar Gizi untuk Kebidanan. Nuha Medika. Yogyakarta.

Putri Ariani, A. 2017. Ilmu Gizi Dilengkapi dengan Standar Penilaian Status Gizi Dan Daftar Komposisi Bahan Makanan. Yogyakarta: Nuha Medika.

Rahmaniar, Nurpudji, A. Taslim. & Burhanuddin. (2013). Faktor-faktor yang Berhubungan dengan Kekurangan Energi Kronis pada Ibu Hamil di Tampa Padang. *Media Gizi Masyarakat Indonesia*. Vol.2 No.2 Tahun 2013: 98-33.

Sugiyono (2019). *Statistika untuk Penelitian*. Bandung: CV Alfabeta.

Setyawati, B. Barida, I. & Irawati, A. (2016). Pengaruh Konsumsi Ibu Hamil Dan Ukuran Biometri Janin Pada Panjang Lahir Bayi. *Jurnal Kesehatan Reproduksi.* Vol.7 No.1, tahun 2016.

Supariasa, I. D., Bakri, B., & Fajar, I. (2018). Penilaian Status Gizi. Jakarta: Penerbit Buku Kedokteran EGC.

Soekirman. 2012. Ilmu Gizi dan Aplikasinya untuk Keluarga dan Masyarakat. Departemen Pendidikan Nasional. Direktorat Jendral Pendidikan: Jakarta.

Soetjiningsih. (2016). Tumbuh Kembang Anak.Edisi 2. Jakarta: EGC.

Warsini. Hadi. & Nurdiati. (2016). Riwayat KEK dan anemia pada ibu hamil tidak berhubungan dengan stunting pada anak usia 6-23 bulan di Kecamatan Sedayu, Bantul, Yogyakarta. *Jurnal Gizi Dan Dietetik Indonesia*, Vol. 4, No. 1, Januari 2016.

Welasasih, B. D., & Wirjayatmadi, R. B. (2012). Beberapa Faktor yang Berhubungan dengan Status Gizi Balita Stunting. The Indonesia Journal of Public Health, 99-104.