

THE RELATIONSHIP BETWEEN MATERNAL KNOWLEDGE ABOUT FEEDING AND THE INCIDENCE OF STUNTING IN TODDLERS

Eva Zulisa^{1*}, Nurul Husna², Cut Mainy Handiana³, Rina Sulicha⁴

^{1,2,3,4}STIKes Muhammadiyah Aceh (Indonesia)

*Corresponding author: zulisae000@gmail.com

Abstract

Stunting in children under five is a major nutritional problem in Indonesia. Malnutrition in toddlers is caused by the nutritional content of the food consumed being unbalanced so that nutritional adequacy levels are not met. Generally, the food consumed by toddlers is influenced by the mother's understanding of their eating patterns. This study aims to determine the relationship between maternal knowledge about feeding and the incidence of stunting among toddlers in the working area of the Alue Bilie Community Health Center, Darul Makmur District, Nagan Raya Regency. The type of research used is analytical with a cross-sectional study. The population is all mothers who have toddlers with malnutrition in the working area of the Alue Bilie Community Health Center, Darul Makmur District, Nagan Raya Regency. The sampling technique was stratified proportional random sampling so that the number of respondents was 33 people. Data analysis used the Chi-Square test. The research results show a relationship between maternal knowledge about feeding and the incidence of stunting among toddlers in the working area of the Alue Bilie Health Center, Darul Makmur District, Nagan Raya Regency, with a p-value of 0.018. It is hoped that the results of this research can be used as input information in formulating health program policies and strategies, especially those related to increasing mother knowledge about feeding toddlers as an effort to increase mother knowledge about feeding toddlers in preventing stunting.

Keywords: Maternal knowledge, Feeding, Stunting, Toddlers

1. INTRODUCTION

Nutritional status during the toddler years is a critical phase because in the first two years after birth the child will experience an optimal growth and development process (1). The nutritional problem currently experienced by toddlers is stunting, which is a condition of chronic malnutrition which results in the child's body being short for his age. The stunting situation will become clear when the child is over two years old (2). Morbidity in children under five if traced is a direct or indirect result of malnutrition every year. This is proven by UNICEF data (2020) as many as 149.2 million children under five or around 22% in the world experience stunting. Even though this percentage has decreased compared to 163.4 million children under five in 2015, the incidence of stunting in the world is still categorized as a public health problem because the percentage is more than 20% (3).

Based on a study of the nutritional status of toddlers in Indonesia, it was found that the prevalence of stunting in toddlers was 27.6%. Handling cases of malnutrition needs to be a

priority during this pandemic because it is predicted that the number of stunting cases due to malnutrition will increase by 7 million or around 15% worldwide. The Indonesian government continues to strive to reduce the prevalence of stunting to 14% by 2024 (4). The increase in the prevalence of stunting in Aceh in 2020 was 10.9% compared to 7% in 2019 (5). The pandemic conditions have forced the activities of the people of Aceh to be limited, causing a major impact on reducing regional economic mobility, including at the household level. This is related to the food needs of families, especially toddlers. Maternal behavior related to the problem of malnutrition in toddlers can be seen from the mother's wrong habits regarding toddler nutrition such as inappropriate selection of food ingredients, unavailability of sufficient amounts of food and lack of food variety which is greatly influenced by the mother's level of knowledge (6). This is in accordance with research by Handiana et.al (2023) which explains that good maternal knowledge about toddler nutrition will influence the mother's attitudes and practices in feeding toddlers (7).

Based on data from the Alue Bilie Community Health Center, Darul Makmur District, Nagan Raya Regency for weighing data for August 2024, it was found that the number of toddlers brought to the posyandu was 370 toddlers, of which 33 toddlers were found to be malnourished. Based on the results of interviews conducted by researchers with nutrition officers and several posyandu kader in the Alue Bilie Community Health Center working area, it was found that one of the causes of the increase in the number of malnourished toddlers was because mother understanding of feeding toddlers aged over two years was still inaccurate. Mothers don't know how to prepare menu, process and serve a variety of foods, so sometimes children become bored and have no appetite. This condition affects the nutritional status of toddlers.

2. METHODOLOGY

The type of research used is analytical with a cross-sectional study. The research variables consist of the independent variable, namely the mother level of knowledge about feeding and the dependent variable, namely the incidence of stunting in toddlers. The population is all mothers who have toddlers with malnutrition in the working area of the Alue Bilie Community Health Center, Darul Makmur District, Nagan Raya Regency. The sampling technique was stratified proportional random sampling so that the number of respondents was 33 people. Instruments in the research include microtoise, standard anthropometric tables with TB/U parameters and a questionnaire sheet containing 25 statements with true or false answer options. Data analysis in this research includes univariate analysis using frequency distribution and bivariate analysis using the Chi Square statistical test.

3. RESULTS

3.1 Mother's characteristics

Table 1: Frequency distribution of characteristics of mother with malnourished toddlers

Mother's characteristics	f	%
Age		
20-35 years	21	63.7
More than 35 years	12	36.3
Level of education		
Basic	3	9.1
Intermediate	25	75.7
High	5	15.2
Total	33	100

3.2 The mother level of knowledge about feeding

Table 2. Frequency distribution based on mother's level of knowledge regarding feeding with malnourished toddlers

The mother level of knowledge about feeding	f	%
Enough	7	21.2
Not enough	26	78.8
Total	33	100

Based on table 1., it is known that of the 33 mothers, most of them were aged 20-35 years, namely 21 people (63.7%) with the highest level of education, namely intermediate graduates, as many as 25 people (75.7%). Based on table 2., it is known that of the 33 mothers, most of them had not enough knowledge about giving food to toddlers with malnutrition, namely 26 people (78.8%).

3.3 Chi square test results

Table 3. The relationship between maternal knowledge about feeding and the incidence of stunting in toddlers

The mother level of knowledge about feeding	The incidence of stunting in toddlers				Total		p-value
	wasted		severely wasted		f	%	
	f	%	f	%			
Enough	5	71.4	2	28.6	7	100	0,018
Not enough	22	84.6	4	15.4	26	100	
Total	31	93.9	2	6.1	33	100	

Based on table 3, it is known that of the 7 mothers who have enough knowledge about feeding, there are 5 mothers who have wasted toddlers (71.4%) and 2 people who are severely wasted (28.6%), while 26 mothers have a level of not enough knowledge about feeding, there were 22 wasted children (84.6%) and 4 children were severely wasted (15.4%). The results of statistical analysis using the Chi-square test obtained a p-value of 0.018 (p-value < 0.05), which means there is a relationship between the mother's knowledge about feeding and the incidence of stunting in toddlers at the Alue Bilie Community Health Center, Darul Makmur District, Nagan Raya Regency.

According to researchers' assumptions, health behavior cannot occur if it does not receive sufficient support from a person's knowledge. Every person's knowledge can be influenced by several factors such as education, work, interests, experience, environment and information. The information in question is the ease of obtaining information so that it can speed up someone's acquisition of new knowledge (8). The results of this research show that in food processing for toddlers, most mothers still lack understanding. In accordance with the results of filling out the questionnaire with statements in numbers 13, 14 and 16, most mothers gave wrong answers. This shows that there are still many mothers who do not understand how to process food properly, especially for toddlers.

According to Afidhal et.al (2023) various cooking methods can influence the nutritional content of the food being cooked (9). Proper food processing provides several benefits, namely improving nutritional value and digestibility, improving taste and aroma and extending shelf life (10). If feeding is not appropriate, the toddler's growth will be

disrupted so that the toddler's body becomes thin, short and even malnutrition can occur (11). Inadequate parenting is an indirect factor that influences the incidence of stunting in toddlers (7). This is related to the mother's efforts to fulfill toddler nutrition, consisting of preparing food menu, how to process food, how to serve food and how to give food (12). The results of this research are in line with research by Marhamah et.al (2022) that maternal knowledge in providing food influences the nutritional status of toddlers with a p-value <0.05 (13). Research by Andolina et.al (2023) also shows that there is a relationship between feeding patterns and stunting in toddlers with a p-value of 0.001 (14).

4. CONCLUSIONS

The results of statistical analysis using the Chi-square test obtained a p-value of 0.018 (p-value < 0.05), which means there is a relationship between the mother's knowledge about feeding and the incidence of stunting in toddlers at the Alue Bilie Community Health Center, Darul Makmur District, Nagan Raya Regency. It is hoped that the results of this research can be used as input information in formulating health program policies and strategies, especially those related to increasing mother knowledge about feeding toddlers as an effort to increase mother knowledge about feeding toddlers in preventing stunting.

5. ACKNOWLEDGEMENTS

The researcher would like to thank the leadership of the STIKes Muhammadiyah Aceh who provided financial assistance for this research as well as those who assisted in collecting data and obtaining permits for the research location.

6. REFERENCES

1. Fuada E a. Karakteristik Status Gizi Balita Akut Dan Kronis [Internet]. Sulawesi Tengah: CV. Feniks Muda Sejahtera; 2023. Available from: https://www.google.co.id/books/edition/Karakteristik_Status_Gizi_Balita_Akut_Da/39esEAAAQBAJ?hl=id&gbpv=0
2. Helmyati, Siti. E a. STUNTING: Permasalahan dan Penanganannya [Internet]. Yogyakarta: Gadjah Mada University Press; 2020. 174 p. Available from: https://www.google.co.id/books/edition/STUNTING_Permasalahan_dan_Penanganannya/PK3qDwAAQBAJ?hl=id&gbpv=1
3. UNICEF. Levels and Trends in Child Malnutrition: Key Findings of the 2021 Edition of the Joint Child Malnutrition Estimates [Internet]. 2020. Available from: data.unicef.org/nutrition
4. Kemenkes RI. Laporan Kinerja Kementerian Kesehatan 2020. Jakarta; 2021.
5. Dinkes A. Profil Kesehatan Aceh 2020. 2021.
6. Zulisa E, Handiana CM. Tingkat Asupan Energi, Protein, Zink, Vitamin a Dan Riwayat Penyakit Infeksi Pada Balita Stunting Dan Non Stunting Di Kecamatan Darul Makmur Kabupaten Nagan Raya. J Ilm Obs [Internet]. 2022;14(3):330–7. Available from: <https://stikes-nhm.e-journal.id/JOB/article/view/885>
7. Cut Mainy Handiana, Eva Zulisa, Nurul Husna PIS. ANALISIS HUBUNGAN RIWAYAT PENYAKIT INFEKSI DAN POLA ASUH TERHADAP STATUS GIZI BALITA DI WILAYAH KERJA PUSKESMAS KUTA BARO KABUPATEN ACEH BESAR. J Ilm Ilmu Kebidanan dan Kandung [Internet]. 2023;15(3):178–85. Available from: <https://stikes-nhm.e-journal.id/JOB/article/view/1359>
8. Herlina. et. a. Dasar Ilmu Kesehatan Masyarakat: Konsep dan Aplikasi dalam

Masyarakat [Internet]. Jambi: PT Sonpedia Publishing Indonesia; 2024. 201 p. Available from: https://www.google.co.id/books/edition/Dasar_Ilmu_Kesehatan_Masyarakat_Konsep_d/eMwNEQAAQBAJ?hl=id&gbpv=1&dq=Ilmu+Kesehatan+Masyarakat+Konsep+dan+Aplikasi+dalam+Kebidanan&pg=PA198&printsec=frontcover

9. Afdhal, F. et. a. Buku Ajar Praktik Lab Keperawatan Komunitas II [Internet]. Jawa Barat: Adab; 2023. 156 p. Available from: https://www.google.co.id/books/edition/BUKU_AJAR_PRAKTIK_LAB_KEPERAWATAN_KOMUNI/tVW6EAAAQBAJ?hl=id&gbpv=1&dq=cara+pengolahan+menu+makanan+balita&pg=PA93&printsec=frontcover

10. Fitriani A, Mauyah N, Elvieta E, Subki S, Sirajus Savina SS, Nurul Akla NA, et al. Penyuluhan Pengolahan Makanan Bergizi Untuk Anak Di Desa Gampong Raya Tambo Kecamatan Peusangan Kabupaten Bireuen 2021. J Abdimas ITEKES Bali. 2022;1(2):76–80.

11. Akbar F, Ambohamsah I, Amelia R. Modifikasi Makanan Untuk Meningkatkan Gizi Balita. J Heal Educ Lit (J-Healt [Internet]. 2021;3:68–75. Available from: <https://ojs.unsulbar.ac.id/index.php/j-healt/>

12. Emiralda. et. a. Hubungan Tingkat Pengetahuan Ibu Tentang Makanan Pendamping ASI Terhadap Status Gizi Bayi. J Ilmu Kedokt dan Kesehat [Internet]. 2022;9(4):1260–7. Available from: <https://ejurnalmalahayati.ac.id/index.php/kesehatan/article/view/5630/pdf>

13. Marhamah S, Damanik R, Darmi S. Hubungan Tingkat Pengetahuan, Sikap Dan Sumber Informasi Orang Tua Untuk Pencegahan Gizi Buruk Pada Balita Di Rsud Jagakarsa Tahun 2021. SENTRI J Ris Ilm. 2022;1(3):665–73.

14. Andolina N, Aatina Adhyatma A. Hubungan Pola Pemberian Makan Terhadap Kejadian Stunting Pada Balita Usia 24-59 Bulan di Puskesmas Botania. Jurnal Promot Prev [Internet]. 2023;6(3):486–93. Available from: <http://journal.unpacti.ac.id/index.php/JPP>