

Description of Complementary Feeding Under-Five Children with the Incidence of Stunting

Rugun Togianur Lingga¹, Lentina Sihombing^{2*}, Jojor Silaban³,
Verawaty Fitrinelda Silaban⁴

^{1,2,3}Kemenkes Poltekkes Medan Prodi DIII Keperawatan Dairi

⁴Universitas Prima Indonesia

Email: lentinas478@gmail.com

ABSTRACT

The government has made various efforts to reduce the incidence of stunting in children under five, but to date, it has not shown maximum results. Stunting is a condition where a child has a shorter height than children of the same age, which means that the child's height is below the normal value. Efforts are made to reduce the prevalence of stunting, among others, by monitoring child growth and development, organizing supplementary feeding activities, or providing MP-ASI. Complementary feeding is food or drink that contains energy and nutrients given to infants or children aged 6-24 months to meet nutritional needs other than breast milk. The purpose of the study was to determine the description of complementary feeding in under-fives with the incidence of stunting. This study used descriptive quantitative research methods with a population of 43 stunted clowns using a total sampling technique. The results showed that the description of the provision of complementary foods for stunting was mostly lacking (69.7%) and the incidence of stunting showed a short category (76.7%) and very short (23.3%). Suggestions. Provide health education about complementary feeding for infants and health education about stunting to parents, especially mothers.

Keywords: stunting, complementary, feeding, children

INTRODUCTION

The government has tried hard to reduce stunting rates among children under five, but until now the results have not been optimal. Sustainable development in 2030 aims to achieve Sustainable Development Goals (SDGs) known as Global Goals. Eight targets have been set by the SDGs to improve community nutrition, one of which is ending the problem of malnutrition by 2030, achieving international targets for handling stunting and wasting by 2025, and ensuring nutritional fulfillment for adolescent women, pregnant women, breastfeeding women, and elderly people (Indonesian Ministry of Health, 2015).

The global prevalence of stunting in children under 5 years of age decreased from 33.0% in 2000 to 22.3% in 2022. Globally, around 148.1 million children under 5 years of age are affected by stunting (World Health Organization, 2023). Based on SSGI data (Indonesian Nutrition Status Survey), the prevalence of stunting in Indonesia reduced from 24.4% in 2021 to 21.6% in 2022. North Sumatra is ranked 19th with a prevalence of 21.1%, while in Dairi

Regency there are 28.6% of toddlers are stunted (Menteri Kesehatan RI, 2022). In the working area of the Batang Beruh Community Health Center, Sidikalang District, Dairi Regency, there are 125 stunted toddlers, with 43 of them being children under two years old.

Stunting is a condition where a child's height is shorter compared to children his age, indicating that the child's height is below normal standards. The growth curve used to assess this condition is determined by the World Health Organization (WHO). Stunting occurs when a toddler's growth is hampered due to malnutrition that lasts for a long period, especially during the First 1000 Days of Life (HPK) (Imani, 2020). These first thousand days are the golden period of a child's brain development (golden age) (Kadafi K T, 2016). Efforts to reduce the prevalence of stunting include monitoring child growth and development and providing additional food or MP-ASI (Indonesian Ministry of Health, 2018).

Complementary foods for breast milk (MP-ASI) are introduced to babies aged 6-24 months as an addition to breast milk. MP-ASI is recommended to be given until the age of 24 months, not to replace breast milk, but as a companion. Giving MP-ASI is a transition process from milk to food with a semi-solid texture, by the baby's growth and increasing nutritional needs. This process includes the baby's growth pattern from sucking to swallowing semi-solid food. Providing inadequate food can cause malnutrition in children, which is the main cause of stunting. MP-ASI is given in stages, starting with liquid food, then thicker porridge, adding fresh fruit, until reaching food with a soft and dense texture (Mufida et al., 2015) The study (Aditia et al., 2023) that factors such as inadequate breastfeeding, poor complementary feeding, presence of infectious diseases, low maternal knowledge, and suboptimal parenting increase the risk of stunting in children under five.

According to the results of research by Giri et al in 2021 regarding the provision of MP-ASI with the incidence of stunting in children aged 6-24 months in posyandu in the working area of the Cigalontong Community Health Center, it was found that 70% of MP-ASI administration was inappropriate (Giri et al., 2021) Similar research was conducted by Nuhan et al., (2022) regarding the provision of complementary foods for breast milk against the incidence of stunting in Cirenten Village, Lebak Regency, Banten, shows that the provision of MP-ASI is inappropriate at 54.8%.

Based on the description above, researchers are interested in examining the description of providing MP-ASI to toddlers with stunting incidents in the working area of the Batang Beruh Community Health Center, Sidikalang District, Dairi Regency. This research can provide an

overview of giving MP-ASI to toddlers with stunting. However, this research is only limited to describing the provision of MP-ASI to stunted toddlers. Research regarding the description of giving MP-ASI to stunted toddlers may have been carried out before, but this research has never been carried out at the working area level of the Batang Beruh Sidikalang Community Health Center.

METHODS

This type of research is descriptive research which aims to understand and answer problems in the current situation. This research involves the steps of data collection, classification, processing, drawing conclusions, and preparing reports (Kartika, 2017).

This research was carried out in the working area of the Batang Beruh Community Health Center, Sidikalang District, Dairi Regency from January to May 2024. The research population included all toddlers who experienced stunting, with a total of 43 people, and the respondents were mothers of stunted toddlers. The sampling method used was total sampling.

The data collection technique was carried out by giving questionnaires to respondents. The questionnaire contains 9 questions pertaining to mother's age, education level, occupation, family income, child's age, gender, body length, weight, MP-ASI administration, administrative texture, and variation, along with characteristic data. The data analysis used is univariate analysis by using data analysis techniques for a variable independently, that is, each variable is analyzed without being linked to other variables.

RESULTS

The frequency distribution of each variable studied will be explained which is presented in the following table:

Table 1. Characteristics of Stunting Toddlers in The Working Area

Characteristics	Frequency	Percentage (%)
Age		
0-5 months	0	0.0
6-8 months	3	7.0
9-11 months	6	13.9
12-24 months	34	89.1
Gender		
Man	26	60.5
Woman	17	39.5

The frequency distribution based on Table 1 shows that there are no stunting children aged 0-5 months, aged 6-8 months 3 people (7.0%), aged 9-11 months 6 people (13.9%), and aged 12-14 months 34 people (89.1%), male 26 people (60.5%) and female 17 people (39.5%).

Table 2. Characteristics of Stunting Baduta Mothers

Characteristics	Frequency	Percentage (%)
Age		
21-25 years old	10	23.3
26-30 years old	14	32.6
31-35 years old	7	16.3
36-40 years old	9	20.9
41-45 years old	3	6.9
>45 years	0	0.0
Education		
Elementary school	3	6.9
Junior high school	5	11.6
SMA/SMK	33	76.8
College	2	4.7
Work		
Farmer	22	51.2
IRT	15	34.9
Civil servants	0	0.0
Self-employed	5	11.6
Etc	1	2.3
Income		
< 2,802,820/month	36	83.7
≥ 2,802,820/month	7	16.3

Frequency distribution based on Table 2 shows that aged 21-25 years 10 people (23.3%), aged 26-30 years 14 people (32.6%), aged 31-35 years 7 people (16.3%), aged 41-45 years 3 people (6.98%) and none aged >45 years, elementary school education 3 people (6.9%), junior high school 5 people (11.6%), SMA/SMK 33 people (76,8%) and college high 2 people (4.7%), farmers 22 people (51.2%), domestic workers 15 people (34.9%), no civil servants, self-employed 5 people (11.6%) and other jobs 1 person (2.3%), income <2,802,820 as many as 36 people (83.7%) and income ≥2,802,820 as many as 7 people (16.3%).

Table 3. Distribution of Stunting Incidents in Baduta Based on Z-Score TB/U

Stunting Events	Frequency	Percentage (%)
Short	33	76.7
Very short	10	23.3
Total	43	100,0

The frequency distribution based on Table 3 shows that the incidence of stunting in the majority of toddlers is 33 short people (76.7%) and 10 very short people (23.3%).

Table 4. Distribution of MP-ASI Provision to Stunting Baduta

Giving MP-ASI	Frequency	Percentage (%)
Good	13	30.2
Not enough	30	69.8
Bad	0	0.0
Total	43	100,0

The frequency distribution of giving MP-ASI to stunted toddlers was good, 13 people (30.2%), less than 30 people (69.8%), bad none.

DISCUSSION

Based on research results from 43 respondents, 69.77% gave MP-ASI is lacking for stunted toddlers. Inappropriate provision of MP-ASI includes age at which it is given, type of food, frequency, quantity/portion, texture, variety, and cleanliness (hygiene) in giving MP-ASI. Complementary foods for breast milk (MP-ASI) are foods or drinks that contain energy and nutrients, given to babies or children aged 6-24 months to meet their nutritional needs apart from breast milk (Citerawati, 2016).

Mothers gave MP-ASI early because the baby looked fussy and cried often, so they were thought to need additional food besides breast milk. The majority of other respondents stated that giving early MP-ASI was caused by conditions where the mother worked and the child was looked after by the grandmother or other family members, to prevent the child from becoming fussy or crying. Giving MP-ASI early is often caused by the mother's wrong perception about the importance of giving exclusive breast milk for 6 months (Udoh & Amodu, 2016). The study Fahmida et al. (2022) found that nutrient problems in under-five children and pregnant women were linked to nutritional issues, leading to the development of food-based and complementary feeding recommendations.

Types of complementary foodsThe majority are given 2-3 types, namely staple food with side dishes and sometimes given vegetables because some children refuse to eat if given vegetables. Respondents rarely combine foods for their children because mothers only give them food that is available and they don't have the money to buy it. Diverse feeding patterns can be interpreted as the consumption of various types of food that vary between food groups, including staple foods, side dishes, vegetables, and fruit. No one type of food contains all the nutrients the body needs to support growth and maintain health. Therefore, food diversity is very important to fulfill all the nutritional components the body needs. Food diversity is an indicator of achieving optimal nutritional status and is an effort to prevent stunting in the future (Prastia & Rahman,

2020). The frequency of providing MP-ASI, the mother said that the baby's feeding schedule was 2-3 times a day, which was adjusted to the family's eating schedule, interspersed with breastfeeding, but the amount of food given was not sufficient for the baby's needs. Even though the frequency of feeding is appropriate, the amount or portion given is not enough, this will affect the nutritional status of the toddler.

Based on the research results, it was found that the majority of portions/amounts given of MP-ASI were $< \frac{1}{2}$ portion. The results of in-depth interviews, most respondents said that only $\frac{1}{4}$ portion of MP-ASI was consumed by children. This happened because mothers did not provide varied food regularly so children did not finish their portion of food, thus affecting the child's nutritional needs. Some mothers stated that their children were only willing to eat certain types of food so if they were given other foods, they refused or only ate a little. Some mothers also mentioned that their children prefer to eat snacks such as crackers and candy, so they are reluctant to eat other foods. Based on the research results, it was found that the texture of the majority of MP-ASI was poor. During in-depth interviews, respondents stated that providing MP-ASI texture was less than optimal due to mothers' ignorance regarding the appropriate texture for the child's age. Apart from that, several mothers also revealed that they did not have time to prepare or present the appropriate texture because they had to work.

There is less variation in giving MP-ASI. Researchers think that it is important to vary the MP-ASI given to children so that children have adequate nutrition that they can prevent and reduce the occurrence of stunting in toddlers. Safe (hygienic) administration of MP-ASI in this study was lacking. During in-depth interviews, mothers said that the food stored was not covered properly and some mothers brought their children to work, so giving MP-ASI was less safe/hygienic. Researchers believe that it is important to provide safe complementary breast milk (MP-ASI) to babies, such as by washing hands with soap before preparing food and before giving it to babies, using clean eating utensils when preparing food, washing vegetables and fruit before consuming, using clean water sources, and storing food in a safe/closed place to avoid germs (such as a refrigerator) which will reduce the incidence of stunting in toddlers.

In efforts to prevent and treat stunting, parents need to pay more attention to the time of administration, type of food, frequency, portion/amount, texture, variety, and safety (hygienic) when providing complementary breast milk (MP-ASI). If not paid attention to, this can cause stunting in children under five. MP-ASI contains nutrients that can replace the function of breast milk which is starting to decrease according to the child's nutritional needs (Anggryni et

al., 2021). This research is in line with research conducted Giri et al., (2021) which shows that the majority of complementary feeding by mothers is 70% inappropriate. The results of another study conducted Nuhan et al., (2022) also showed that giving MP-ASI to the group of children with stunting was 54.8% less. The aim of providing MP-ASI is to supplement the nutrients that are lacking in breast milk, help babies develop the ability to accept various types of food with variations in taste and texture and support the baby's development in honing the ability to chew and swallow food and adapt babies to be able to consume food that contains higher energy content (Neherta M., 2023). The study (Masnawati & Dewi, 2021) found that the age of complementary breast milk, the type of food, the frequency of providing it, and the variety of it are all linked to nutritional status. The age at which complementary breast milk is given, the type of food, the frequency of giving it, and the variety of it are all linked to nutritional status.

CONCLUSION

The results of the research show that the description of providing MP-ASI to toddlers with the incidence of stunting in the working area of the Batang Beruh Community Health Center, Sidikalang District, Dairi Regency is 69.77% less. The incidence of stunting among toddlers in the Batang Beruh Health Center working area, Sidikalang District, Dairi Regency, is in the short category 76.74% and the very short category 23.25%.

LIMITATIONS

This research can provide an overview of giving MP-ASI to toddlers with stunting. However, this research is only limited to describing the provision of MP-ASI to stunted toddlers. There needs to be a discussion in providing health education regarding giving MP-ASI to toddlers and information about stunting. It is hoped that future researchers will discuss efforts to reduce the prevalence of stunting other than through breastfeeding, which includes monitoring children's growth and development and providing additional food.

REFERENCES

- Aditia, N. E. O., Mitra, M., Rienarti Abidin, A., Priwahyuni, Y., & Vita Gloria Purba, C. (2023). Factors Associated with stunting in children under five years. *Jurnal Kesehatan Komunitas*, 9(1). <https://doi.org/10.25311/keskom.vol9.iss1.1294>
- Anggryni, M., Mardiah, W., Hermayanti, Y., Rakhmawati, W., Ramdhanie, G. G., & Mediani, H. S. (2021). Faktor pemberian nutrisi masa golden age dengan kejadian stunting pada balita di negara berkembang. *Jurnal Obsesi*, 5(2).

- Citerawati, Y. W. (2016). *Makanan pendamping ASI*. Trans Medika.
- Fahmida, U., Pramesthi, I. L., Kusuma, S., Wurjandaru, G., & Izwardy, D. (2022). Problem nutrients and food-based recommendations for pregnant women and under-five children in high-stunting districts in Indonesia. *Current Developments in Nutrition*, 6(5). <https://doi.org/10.1093/cdn/nzac028>
- Giri, R. K., Susanti, Y., & Waspodo, S. (2021). Hubungan pemberian MP-ASI dengan kejadian stunting pada anak usia 6-24 bulan di Posyandu wilayah kerja Puskesmas Cigalontong. *Medical Science*.
- Imani, N. (2020). *Stunting pada anak: Kenali dan cegah sejak dini*. Hijaz Pustaka Mandiri.
- Indonesian Ministry of Health. (2015). *Kesehatan dalam kerangka Sustainable Development Goals (SDGs). Rakorpop Kementerian Kesehatan RI, 97, 24*. Kemenkes RI.
- Indonesian Ministry of Health. (2018). *Buletin stunting Kementerian Kesehatan RI*. Kemenkes RI.
- Kadafi K T. (2016). *Kenali masalah kesehatan anak anda*. UB Press.
- Kartika, I. I. (2017). *Buku ajar dasar-dasar riset keperawatan dan pengolahan data statistik*. Trans Info Media.
- Masnawati, & Dewi, S. S. S. (2021). The relationship of mother's knowledge with early breastfeeding for babies in Sialaman village, Sipirok district, Tapanuli Selatan regency in 2020. *Jurnal Kesehatan Ilmiah Indonesia (Indonesian Health Scientific Journal)*, 6(2). <https://doi.org/10.51933/health.v6i2.533>
- Menteri Kesehatan RI. (2022). *Buku saku hasil Survei Status Gizi Indonesia (SSGI) tingkat nasional, provinsi dan kabupaten/kota: Badan kebijakan pembangunan kesehatan Kementerian Kesehatan RI*. Menteri Kesehatan RI.
- Mufida, L., Tri Dewanti Widyaningsih, & Jaya Mahar Maligan. (2015). Prinsip dasar makanan pendamping Air Susu Ibu untuk bayi usia 6-24 bulan. *Jurnal Pangan Dan Agroindustri*, 3(4).
- Neherta, M., & Muthia, N. A. (2023). *Intervensi pencegahan stunting (pendekatan terpadu untuk mencegah gangguan pertumbuhan pada anak*. Adab.
- Nuhan, H. G., Solehah, A. N., & Husniawati, N. (2022). Hubungan pemberian makanan pendamping ASI terhadap kejadian stunting di Desa Cirinten Kabupaten Lebak Banten. *Jurnal Ilmiah Kesehatan*, 14(2).
- Prastia, T. N., & Rahman, L. (2020). Keragaman pangan berhubungan dengan stunting anak usia 6-24 bulan. *Hearty Jurnal Kesehatan Masyarakat*, 8(1).
- Udoh, E. E., & Amodu, O. K. (2016). Complementary feeding practices among mothers and nutritional status of infants in Akpabuyo area, cross river state Nigeria. *Springer Plus*.
- World Health Organization. (2023). *World health statistics 2023: Monitoring health for the SDGs, Sustainable Development Goals*. <https://www.who.int/publications/i/item/9789240074323>