

## Feeding practices in stunting children aged 24-59 months at Sukamukti Community Health Centre Garut Regency

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### Abstract

**Introduction:** Stunting is one of the nutritional problems which has become a global concern because of the high incidence rate. Stunting happens in infants as a result of chronic malnutrition. Usually occurring in the first 1,000 days of life, stunting can be caused by various factors, one of which is the inadequacy of feeding practices. The community health centre with the highest percentage of stunting cases in Garut Regency is the Sukamukti Community Health Centre. The aims of this research was to describe feeding practices in stunting children at Sukamukti Community Health Centre in Garut Regency.

**Method:** This research used a retrospective method. The population in this research was mothers who had stunted children with purposive sampling techniques. The number of samples was 50 respondents. The instrument used in this research was a modification of the Infant and Young Child Feeding (IYCF) Practices. The research was carried out in May 2019 with ethical licensing numbered 509/UN6.KEP/EC/2019. Data were analyzed using univariate analysis.

**Result:** Feeding practices in stunting children at Sukamukti Community Health Centre Garut Regency were as follows: 32% did not get IMD or early initiation of breastfeeding, 84% did not get exclusive breastfeeding, 46% was not breastfed until the age of two years, 6% was not been given MP-ASI or weaning food at the age of 6-8 months, 34% did not meet the minimum dietary diversity (MDD), 36% did not meet the minimum meal frequency (MMF), 56% did not meet the minimum acceptable diet (MAD), and 100% consumed iron-containing foods.

**Conclusion:** Feeding practices in children at the age of 0-23 months is still less than optimal. It is hoped that this research can be used as a consideration by health workers, especially nurses in carrying out their role as educators, facilitators, collaborators, and monitoring agents in the community for infant and child feeding practices.

**Keywords :** Age 24-59 months, feeding practices, stunting.

### Abstrak

**Latar Belakang:** Stunting merupakan salah satu permasalahan gizi yang sedang menjadi perhatian dunia karena angka kejadiannya yang tinggi. Stunting terjadi pada balita akibat kekurangan gizi yang berlangsung kronis. Biasanya terjadi pada 1000 hari pertama kehidupan (HPK). Stunting dapat disebabkan oleh berbagai faktor salah satunya adalah ketidakadekuatan *feeding practices*. Puskesmas dengan persentase stunting tertinggi di Kabupaten Garut adalah Puskesmas Sukamukti. Tujuan penelitian ini untuk menggambarkan *feeding practices* pada anak stunting di Puskesmas Sukamukti Kabupaten Garut.

**Metode:** Penelitian ini menggunakan metode retrospektif. Populasi pada penelitian ini adalah ibu yang memiliki anak stunting dengan teknik *purposive sampling*. Jumlah sampel sebanyak 50 responden. Instrumen yang digunakan pada penelitian ini adalah modifikasi dari *Infant and Young Child Feeding (IYCF) Practices*. Penelitian dilakukan pada bulan Mei 2019 dengan perizinan etik nomor 509/UN6.KEP/EC/2019. Data dianalisis menggunakan analisis univariat.

**Hasil:** *Feeding practices* pada anak stunting di Puskesmas Sukamukti Kabupaten Garut adalah 32% tidak mendapat IMD, 84% tidak mendapat ASI eksklusif, 46% tidak menyusui hingga usia dua tahun, 6% belum diberikan MP-ASI saat usia 6-8 bulan, 34% tidak memenuhi *minimum dietary diversity* (MDD), 36% tidak memenuhi *minimum meal frequency* (MMF), 56% tidak memenuhi *minimum acceptable diet* (MAD), dan 100% mengonsumsi makanan yang mengandung zat besi.

**Kesimpulan:** *Feeding practices* pada anak saat usia 0-23 bulan masih kurang optimal. Diharapkan penelitian ini dapat dijadikan sebagai bahan pertimbangan petugas kesehatan terutama perawat dalam menjalankan perannya sebagai *educator, facilitator, collaborator, dan monitoring* di masyarakat untuk praktik pemberian makan bayi dan anak.

**Kata kunci:** *Feeding practices; stunting; usia 24-59 bulan.*

## INTRODUCTION

Stunting is a condition of a toddler or children under five years of age who has shorter height or body length than his age (1). Currently, stunting is a nutritional problem that becomes a global and national problem. Based on WHO conceptual framework on Stunting Context, Causes, and Consequences, the factors that cause stunting consist of family and household factors, the inadequacy of complementary foods (MP-ASI), inadequacy of exclusive breastfeeding, and infectious diseases (Stewart et al., 2013). However, a factor that becomes a direct cause of nutritional problems is nutrient intake (3).

Stunting occurs in the first 1000 days of life that is since the pregnancy until the age of two years after birth (4). First 1000 days of life is a golden period where the growth and development of children is very fast and rapid (5). Malnutrition that occurred in this period still has an opportunity to be corrected (window of opportunity). If the opportunity is not utilized properly, it can cause irreversible damage or becomes uncorrectable (6).

Stunting in under five children is usually not realized because the differences between children who are stunted with normal children at that age are not very visible (7). In addition, stunting children do not show instant indications or signs of symptoms such as diseases in general. A child's short height is often considered as genetic influence (8).

During pregnancy, nutritional status and nutritional intake of mothers have a major contribution in fetal growth process. If the mother is unable to meet her nutritional intake as needed, living in an environment with inadequate sanitation, having a short height (<150 cm), pregnancy distance that is too close to the previous pregnancy, and still at the age of teenage mother (<20 years) can cause malnutrition in babies they born. Babies may be born with low birth weight (LBW) that is less than 2,500 grams, and short length of birth that is less than 48 cm. After the baby is born with that conditions, catch up growth can be done

until the age of two years (9). However, if it is continued with nutrient intake that doesn't meet the baby need, it will increase the risk of stunting (3).

Children aged 0-23 months are passive consumers, their nutritional intake depends on the feeding by mothers/child caregivers (Sari & Ernawati, 2018). Feeding or feeding practices for children have a major contribution in meeting the nutritional needs of children. But this age is prone to get wrong parenting, inadequate access to services, and improper feeding (Nadiyah, Briawan, & Martianto, 2014). According to the results of Nabuasa, Juffrie, and Huriyati (2013) research, a history of parenting has a significant relationship with the incidence of stunting at the age of 24-59 months. Parenting is the behavior practiced by caregivers in providing food (feeding practices), maintaining health, providing stimuli as well as emotional support.

Feeding practices aim to include and obtain essential nutrients needed by the body for growth and development process. Feeding practices recommended by the Indonesian Pediatrician Association (IDAI) for toddlers under two years of age are the initiation of early breastfeeding (IMD), exclusive breastfeeding for six months, continued breastfeeding until the age of two years accompanied by complementary feeding (MP- ASI). According WHO (2010) to the administration of complementary feeding in feeding practices is described as an introduction of solid, semi-solid, or soft foods, minimum dietary diversity, minimum meal frequency, minimum acceptable diet, and consumption of iron-rich or iron-fortified foods.

Sukamukti Community Health Centre is the Community Health Centre with highest percentage of stunting in Garut Regency, reaching 32.41%. This percentage is seen from the number of stunting children compared to normal children in the working area of the Community Health Centre based on data of Garut Regency Health Office in 2017. Based on the previously described phenomena, researcher considers it is

important in conducting research related to feeding practices in stunting children aged 24-59 months in the working area of Sukamukti Community Health Centre in Garut Regency.

## METHOD

The type of research used in this study was quantitative with descriptive research design that was retrospective. The population in this study were mothers who had stunted children aged 0-59 months based on Body Height/Age indicator in the working area of Sukamukti Community Health Centre consisting of two villages with 15 Posyandu in August 2017, namely 305. The sampling technique used was purposive sampling. The number of samples in this study was 50 respondents. The instruments used in this study were a modification of the IYCF (Infant and Young Child Feeding) Practices and validity as well as reliability tests were performed.

This research was conducted in the working area of Sukamukti Community Health Centre in Garut Regency. Data collection was carried out for 2 months, from April to May 2019. Ethical clearance research was obtained from the Health Research Ethics Committee of Padjadjaran University with license number 509 / UN6.KEP / EC / 2019. Data were analyzed using univariate analysis. This data collection procedure began with following the Posyandu activities. Weight and height data obtained from secondary data that was result of measurement conducted by posyandu cadres. To obtain respondent data, researcher was assisted by cadres to meet the respondents directly by door to door.

## RESULT

The result of this study are in the frequency distribution table and item analysis for each indicator. (Table 1 and Table 2)

Table 1. Frequency Distribution of Mothers and Stunting Children Characteristics at Sukamukti Community Health Centre (n=50)

Characteristic	f	%
Age of Mother		
17-25 years old	12	24,0
26-35 years old	28	56,0
36-45 years old	9	18,0
>45 years old	1	2,0
Last Education		
SD/equivalent	10	20,0
SMP/equivalent	21	42,0
SMA/equivalent	19	38,0
Occupation		
Housewife	46	92,0
Labor	2	4,0
Private employee	2	4,0
Family Income		
< City Minimum Wage (Rp1.807.286)	37	74,0
≥ City Minimum Wage (Rp1.807.286)	13	26,0
Age of Children		
24-35 months	18	36,0
36-47 months	15	30,0
48-59 months	17	34,0
Gender of Children		
Male	24	48,0
Female	26	52,0
Birth Body Weight		
Low (< 2500 g)	2	4,0
Normal (≥ 2500 g)	48	96,0
Birth Body Length		
Short (< 48 cm)	7	14,0
Normal (≥ 48 cm)	43	86,0
Weight Monitoring Once a Month		
Yes	39	78,0
No	11	22,0

Based on Table 1, the majority of respondents were at the age of 26-35 years old, had junior high school as their last education, occupied as a housewife, had family income <City Minimum Wage, had children aged 24-35 months, with the gender of girl, normal birth weight and height, as well as did body weight and height monitoring once a month.

Table 2. Frequency Distribution of Feeding Practices in Stunting Children at Sukamukti Community Health Centre in Garut Regency (n = 50)

No	Indicator	Successful		Not Successful	
		f	%	f	%
1.	Early initiation of breastfeeding	34	68,0	16	32,0
2.	Exclusive breastfeeding	8	16,0	42	84,0
3.	Continued breastfeeding at 2 years	27	54,0	23	46,0
4.	Introduction of solid, semi-solid or soft foods	47	94,0	3	6,0
5.	Minimum Dietary Diversity (MDD)	33	66,0	17	34,0
6.	Minimum Meal Frequency (MMF)	32	64,0	18	36,0
7.	Minimum Acceptable Diet (MAD)	22	44,0	28	56,0
8.	Consumption Iron-foods	50	100,0	0	0,0

According to Table 2, 32% of children did not get IMD, 84% of them did not succeed exclusive breastfeeding, 46% did not get breast milk until the age of two years, 6% did not get complementary feeding at the age of 6-9 months, 34% did not meet MDD, 36% did not meet MAD, 56% did not succeed in meeting MAD, and 100% succeeded in eating foods containing iron.

## DISCUSSION

### 1. Early initiation of breastfeeding

Based on the results, most children got early initiation of breastfeeding. This was likely to occur because the baby was born quite months, through normal childbirth, and without any specific medical indications.

This is supported by Novianti (14) which stated that there are factors that can support the practice of IMD, namely the process of giving birth, mother and baby condition after childbirth, mother's knowledge about the importance of early breastfeeding initiation, husband's support and support of health workers in the implementation of early breastfeeding initiation including the role of nurses as collaborator in early breastfeeding initiation practice. In this study, although most stunting children got early breastfeeding initiation, early breastfeeding initiation is not the only factor that lead to stunting. This is supported by the results of research by Nadiyah et al., (11) which stated that there was no significant relationship between early breastfeeding initiation and stunting. The result of this study most babies are born with a normal weight and length so it is likely to get an IMD at birth. This is supported by research which states that there are factors that can support the practice of IMD, namely the delivery process, the condition of the mother and baby after delivery, the mother's knowledge about the importance of IMD, husband's support and support of health workers in implementing IMD (14).

### 2. Exclusive Breastfeeding

In this study, most infants did not receive exclusive breastfeeding because of the administration of food/drinks other than breast milk at the age of 0-6 months. Administration of food/drinks before the age of 6 months might be due to the lack of maternal education. Based on demographic data, most mothers have low levels of education. Mothers with low education tend to have less knowledge and are slow in responding to information they receive, so they less understand the importance of providing exclusive breastfeeding to infants and the negative impact of early complementary feeding for infants (15). Besides, traditions in the community itself might also influence the administration of early complementary feeding for this study. It was supported by the results of Afriyani,

Halisa, and Rolina (16), research stated that tradition has a significant relationship with exclusive breastfeeding. Likewise, according to Prabasiwi, Fikawati, and Syafiq (17) most breastfeeding mothers have a perception of inadequacy of breast milk which was a condition where mothers feel if the milk they produce cannot meet the needs of their children, so mothers gave food / drinks before the age of 6 months. Nurses can act as providers of education related to exclusive breastfeeding (18).

### 3. Continued Breastfeeding at 2 years

According to the results of the study, most children consumed continued breast milk. The number of children who got continued breastfeeding can be caused by most mothers who didn't work / worked as housewives and had more time with children. This was supported by research conducted by Wijayanti (19) which stated that the majority of mothers who practiced continued breastfeeding in urban areas were housewives.

### 4. Introduction of solid, semi-solid, or soft foods

From the results of this research, most mothers have started giving food at the age of 6-8 months. However, all (100%) of children aged 6 months should have been given food / drink other than breast milk since breastfeeding alone is unable to meet the nutritional needs of the children. Administration of complementary feeding must be adjusted to the Recommended Nutrition Adequacy Rate (RDA) based on age and food texture. If it is given too late can result in malnourished children. If malnutrition lasts quiet long it can affect the growth of body weight, body length, and children's intelligence. If it is given too early, the digestive organs are anatomically and physiologically may not function properly and can only accommodate and digest a little food (20). The results of this study were in line with the results of the Khasanah, Hadi, and Paramashanti research (7), that the time of first feeding either less than 6 months (early) or more than 6 months (late)

has a significant relationship with incidence of stunting, and has 2.8 times higher risk for stunting to occur.

### 5. Minimum Dietary Diversity (MDD)

WHO / UNICEF in its provisions required infants aged 6-23 months to get adequate complementary feeding with the provisions that they can receive a minimum of 4 or more than 7 types of food which is called the minimum dietary diversity. Based on the results, most children consumed more than the same as 4 types of food. This was in contrast to the research of Paramashanti, Paratmanitya, and Marsiswati (21), which showed that most stunting children aged 0-23 months did not meet MDD. Fulfillment of minimum dietary diversity in this study can be influenced by maternal age, maternal education level, exposure to mass media, family income, and number of family members (22). The quality of food was also a consideration in this study. Even though the food is varied, if it is not clean, the cooking method is wrong, and the food portion is not balance between one type to another, it will lead the obtained nutritional content to be less than optimal. In addition to quality, quantity of food also needs to be concerned. If the food is diverse but not balanced or not in accordance with the portion of each type of food, the amount of nutrients will not be optimal.

### 6. Minimum Meal Frequency (MMF)

From results of the study, most of stunting children have eaten with appropriate frequency. Despite the history of most children ate with the frequency that should be, the portion in every meal was less than they supposed. In addition, the lack of mothers awareness was related to the number of how many times they have to give food to children and the lack of feeding stability can also influence the achievement of MMF (23). Incompatibility in fulfilling meal frequency, Incompatibility of portions at every meal, and administration of snack can result in the unfulfilled nutritional needs of children in their daily basis. Because the

intensity of this feeding is a habit, if MMF is not met then it will cause chronic malnutrition.

### 7. Minimum Acceptable Diet (MAD)

Minimum Acceptable Diet (MAD) is a combination of the success of minimum dietary diversity (MDD) and minimum meal frequency (MMF). The results showed that more than half of the children did not get the appropriate dietary diversity and meal frequency. This can be influenced by the age of mother, mother's education level, exposure to mass media, family income, and number of family members (22), as well as the lack of maternal awareness related to number of times they have to give food to children, the lack of stability in giving food can also affect the success of MMF (23).

### 8. Consumption of Iron-foods

The results of this study indicated that 100% of children consumed iron foods at the age of 6-23 months both in the form of local foods or fortified foods. Children consumed more local food than fortified food, for example spinach, red meat, beans. This might be because local food is easier to be found and can be eaten by all family members (24). Meanwhile for the administration of fortified food, families have to spend additional costs since fortified food can be obtained in instant baby food (25). Although the consumption of iron in this study reached 100%, but there must be concern that is on how often that foods consumption was, and on how the process of local foods that are rich in iron was. Because the wrong processing method can reduce the iron content in it (26).

### Nursing Implication

This study showed that feeding practices are still less than optimal, so it needs the role of nurses, especially community nurses, as educators to provide health education related to the importance and benefits of feeding practices. The role of the community nurses as facilitators is to be a place for mothers to ask regarding

feeding practices. The nurse's role as a collaborator is to collaborate with other professions in optimizing each indicator in feeding practices. In addition, the role of nurses for monitoring the implementation of feeding practices in children aged 0-24 months.

### CONCLUSION

Based on the results of retrospective study conducted on 50 respondents, it was found that feeding practices in stunting children in Sukamukti Community Health Centre in Garut Regency were still less than optimal. Feeding practices must remain a concern because it is an effort to prevent stunting. Feeding practices at the age of 0-24 months must be carried out continuously between one and another indicators because they are interconnected. If one indicator fails, it may hamper other indicators in optimizing the growth and development of children.

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