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RELATIONSHIP BETWEEN COMPLEMENTARY FEEDING PRACTICES AND STUNTING INCIDENCE IN THE WORKING AREA OF UPT PUBLIC HEALTH CENTER NEGERI AGUNG

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ABSTRAK : HUBUNGAN PRAKTIK PEMBERIAN MAKANAN PENDAMPING DENGAN KEJADIAN STUNTING DI WILAYAH KERJA UPT PUSKESMAS NEGERI AGUNG

Latar Belakang : Data Survei Status Gizi Indonesi (SSGI) oleh Kementrian Kesehatan RI tahun 2022 menunjukkan prevalensi stunting di Indonesia sebesar 21,6%, di Provinsi Lampung sebesar 15,2%, di Kabupaten Way Kanan sebesar 18,4%, di Kecamatan Negeri Agung sebesar 7,84% serta di wilayah kerja UPT Puskesmas Negeri Agung 8,25%. Survey pendahuluan yang peneliti lakukan pada bulan Februari 2023 belum semua ibu menerapkan praktik pemberian makanan pendamping ASI (MP-ASI) yang sesuai dengan rekomendasi WHO yaitu tepat waktu dalam pemberian MP-ASI, kualitas makanan MP-ASI yang adekuat, keamanan dalam menyiapkan dan menyimpan MP-ASI, dan *responsif feeding*. Tujuan penelitian ini adalah untuk mengetahui hubungan praktik pemberian makanan pendamping ASI dengan kejadian stunting.

Metode : Metode yang digunakan adalah observasi analitik dengan pendekatan *cross sectional* menggunakan data primer. Sampel dalam penelitian ini 211 responden dengan teknik pengambilan sampel *accidental sampling*, dimana pengumpulan data menggunakan kuesioner kemudian dianalisa dengan uji *chi-square*.

Hasil : Dari hasil penelitian diperoleh terdapat hubungan yang signifikan ketepatan waktu dalam pemberian MP-ASI dengan kejadian stunting (*p value* 0,000), terdapat hubungan makanan pendamping ASI yang adekuat dengan kejadian stunting (*p value* 0,000), terdapat hubungan yang signifikan keamanan pemberian MPASI yang adekuat dengan kejadian stunting (*p value* 0,000), terdapat hubungan yang signifikan responsive feeding dengan kejadian stunting (*p value* 0,000), balita dengan stunting menunjukkan dampak buruk terhadap pertumbuhan, perkembangan dan kualitas sumber daya manusia. Dari sektor kesehatan perlu adanya peningkatan upaya preventif dan promotif mengenai praktik pemberian MP-ASI sesuai dengan standar agar dapat memperbaiki status gizi anak dan mencegah dampak dari stunting. Stunting bukan hanya masalah sektor kesehatan, intervensi yang tepat dengan penanganan dini dan bertanggung jawab melalui berbagai lintas sektor terkait.

Kesimpulan : Terdapat hubungan praktik pemberian makanan pendamping ASI dengan kejadian stunting.

Kata kunci : Stunting, Praktik Pemberian MP-ASI,tepat waktu, adekuat, aman,*responsive feeding*

ABSTRACT

Background: The Indonesian Nutritional Status Survey (Survei Status Gizi Indonesia) conducted by the Ministry of Health of the Republic of Indonesia in 2022 indicated a prevalence of stunting in Indonesia at 21.6%. In Lampung Province, it was 15.2%; in Way Kanan Regency, 18.4%; in Negeri Agung District, 7.84%; and in the working area of UPT (Technical Implementation Unit) Negeri Agung Public Health Center, 8.25%. A preliminary survey conducted by the researcher in February 2023 revealed that not all mothers were implementing appropriate complementary feeding practices in accordance with WHO recommendations. These recommendations include timely initiation of complementary feeding, adequate quality of complementary foods, safe preparation and storage of complementary foods, and responsive feeding. The aim of this research was to determine the relationship between complementary feeding practices and the incidence of stunting.

Method: The method used was analytical observation with a cross-sectional approach using primary data. The sample in this research comprised 211 respondents selected through an accidental sampling technique. Data was collected using a questionnaire and subsequently analyzed using the chi-square test.

Results: From the research results, it was found that there was a significant relationship between the timely initiation of complementary feeding and stunting incidence (p-value 0.000). There was a significant association between appropriate complementary feeding practices and stunting incidence (p-value 0.000). Moreover, a significant relationship was observed between the safe provision of adequate complementary foods and stunting incidence (p-value 0.000) and a significant correlation between responsive feeding and stunting

incidence (p-value 0.000). Stunted toddlers demonstrated adverse effects on growth, development, and human resource quality. In the healthcare sector, there is a need for an increase in preventive and promotive efforts regarding appropriate complementary feeding practices in accordance with standards. This is essential for improving children's nutritional status and preventing stunting's impacts. Stunting is not merely a healthcare sector issue; it demands appropriate interventions through early and responsible management across various interconnected sectors.

Conclusion: There is a correlation between the practice of providing complementary foods alongside breastfeeding and the occurrence of stunting.

Keywords: *Stunting, Complementary Feeding Practices timely, adequate, safe, responsive feeding*

INTRODUCTION

Currently, Indonesia is still facing nutritional issues that have serious implications for human resource quality, one of which is the problem of stunting. Stunting is a growth failure that occurs in toddlers due to chronic malnutrition, resulting in children being too short for their age. Within the framework of the WHO concept, stunting results from the interaction of various factors, namely insufficient nutritional intake and/or increased nutritional requirements. Insufficient intake can be caused by socioeconomic factors (poverty), low education and knowledge about infant and toddler feeding practices (sufficient Breast Milk (ASI) intake, sufficient animal protein in Complementary Feeding (MPASI), neglect, cultural influences, and availability of local food resources (WHO, 2020).

The condition of stunting, according to the Minister of Health of the Republic of Indonesia Decree Number 1995/MENKES/SK/XII/2010 regarding the anthropometric standards for assessing the nutritional status of children, is a situation where the measurement results of Height for Age (HAZ) or Height for Age (HFA) are between -3 SD to -2 SD. If the measurement results of HAZ or HFA fall below -3 SD, it is referred to as severe stunting (KEMENKES RI, 2013).

According to the UNICEF framework, one of the factors causing stunting in toddlers is an imbalanced food intake. Additionally, a contributing factor to stunting is inadequate complementary foods (MP-ASI), which also plays a role in the prevalence of stunting related to malnutrition. Delayed introduction of complementary foods can lead to iron deficiency in children. A child's hindered growth and development due to prolonged iron deficiency during early childhood can result in impaired growth. Hence, providing appropriate complementary foods to toddlers is of utmost importance (WHO, 2013).

RESEARCH METHODS

The method employed was analytical observation with a cross-sectional approach using primary data. The sample in this study consisted of 211 respondents selected through the accidental sampling technique. Data collection was conducted through questionnaires and subsequently analyzed using the chi-square test.

The independent variables in this study included the timing of complementary feeding introduction, adequate quality of complementary feeding, safety (preparation, cooking, storage of complementary feeding), and responsive feeding, and the dependent variable was the occurrence of stunting.

RESEARCH RESULTS

Univariate Analysis

Based on the characteristics table of the respondents, the majority have an education level of high school or equivalent (53.6%). Regarding occupation, a significant portion are unemployed/homemakers (43.1%). The number of toddlers in the family is typically one child (61.6%), and the income is less than the regional minimum wage (93.4%)

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Table 1
Respondent Characteristics

Description	Frequency N = 211	Percentage (%)
Education Characteristics		
Elementary School	11	5,2
Junior High School	71	33,6
High School	113	53,6
Academy/University Degree	16	7,6
Occupation Characteristics		
Unemployed	91	43,1
Laborer/Worker	47	22,3
Entrepreneur	0	0
Farmer	58	27,5
Private Employee	5	2,4
Civil Servant/Military/Police	10	4,7
Number of Toddlers in the Family		
1 Toddler	130	61,6
2 Toddler	78	37
3 Toddler	3	1,4
Income Characteristics		
Less than Rp. 2.840.000,-	197	93,4
More than Rp. 2.840.000,-	14	6,6

Table 2
Respondent Characteristics Based on Stunting Incidence

Stunting Incidence	Frequency	Percentage
Stunted	134	63.5
Not Stunted	77	36.5

Based on the processed data provided, it can be observed that the data pertains to the occurrence of stunting within a population. Two groups were observed: a group found to experience stunting and a group not found to experience stunting. In the group experiencing stunting, there were 134 cases, constituting 63.5% of the total analyzed population. This indicates that a significant portion of the population has a stunting occurrence. Meanwhile, in the group not experiencing stunting, there were 77 cases, accounting for approximately 36.5% of the total analyzed population. This signifies that a small portion of the population does not experience stunting.

Table 3
Characteristics of Respondents Based on Complementary Feeding Practices

Variable	Frequency	Percentage
Timeliness of Complementary Feeding		
No	72	34,1
Yes	139	65,9
Adequate Complementary Feeding		
No	132	62,6
Yes	79	37,4
Safety in preparing and storing complementary feeding		
No	136	64.5
Yes	75	35.5
Responsive Feeding		
No	169	80,1
Yes	42	19,9

Based on Table 3 above, concerning the variable of timely complementary feeding, it can be observed that within the group that does not provide complementary feeding at the appropriate time, there are 72 cases (34.1%) out of the total analyzed population. Meanwhile, in the group that provides complementary feeding at the appropriate time, there are 139 cases, constituting approximately 65.9% of the total analyzed population.

In the variable of adequate complementary feeding, within the group that does not provide adequate complementary feeding, there are 132 cases (62.6%) out of the total analyzed population. Meanwhile, in the group that provides adequate complementary feeding, there are 79 cases (37.4%), constituting a portion of the total analyzed population.

From the characteristics of safety in preparing and storing complementary feeding, it can be concluded that out of 211 research respondents, a total of 64.5% (136 respondents) did not provide complementary feeding safely. In comparison, approximately 35.5% (75 respondents) provided complementary feeding safely.

From the characteristics of responsive feeding, it can be concluded that out of 211 respondents, a total of 169 respondents (80.1%) have not fully paid proper attention to the process of providing complementary feeding with responsive feeding principles. This includes consistently responding to hunger or fullness cues from the child, adhering to the baby's feeding schedule, feeding duration, offering snacks outside of meal schedules, and creating a pleasant feeding environment. On the other hand, 42 mothers (19.9%) have observed responsive feeding in providing complementary feeding.

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Based on the table above, out of 72 samples with delayed complementary feeding introduction, 59 toddlers were found to experience stunting (28%), while 13 toddlers did not experience stunting (6.2%). Among the 139 respondents who introduced complementary feeding on time, 75 toddlers were found to experience stunting (35.5%), and 64 toddlers (30.3%) did not experience stunting.

Table 4
Relationship Between Timeliness of Complementary Feeding and Stunting Incidence

Timeliness of Feeding	Stunting Incidence				Total	*P-value*	*Odds Ratio* (CI 95%)
	Stunted		Not Stunted				
	N	%	N	%			
Not Timely	59	28	13	6,2	72	0,000	3,873 (1,949-7,697)
Timely	75	35,5	64	30,3	139		

Source: Processed data by the researchers, 2023

Table 5
Relationship between Adequate Complementary Feeding and Stunting Incidence

Adequate Complementary Feeding	Stunting Incidence				Total	P-value	CI (Odds Ratio)
	Stunted		Not Stunted				
	N	%	N	%			
Not Adequate	132	62,6	0	0	132	0,000	98,274
Adequate	2	0,9	77	36,5	79		36,924-261,559

Source: Processed data by the researchers, 2023

Based on the table above, out of 132 respondents who did not provide adequate complementary feeding, a stunting incidence was found in 132 toddlers (62.6%), and no stunting incidence was found in 0 respondents (0%). Meanwhile, out of 79 respondents who provided adequate complementary feeding, a stunting incidence was found in 2 toddlers (0.9%), and 77 toddlers (36.5%) were not experiencing stunting.

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Table 6
The Relationship Between the Safety of Complementary Feeding Provision and Stunting Incidence

Safety of Complementary Feeding Provision	Stunting Incidence				P-*value*	CI (Odds Ratio)
	Stunted		Not Stunted			
	n	%	N	%		
Unsafe	102	48,3	34	16,1		4,031
Safe	32	15,2	43	20,4	0,000	(2,212 -7,346)

Source: Processed data by the researchers, 2023

Based on the table above, it is known that out of 136 respondents who were unsafe in providing and storing complementary foods for breastfeeding, 102 toddlers (48.3%) were found to experience stunting, and 34 toddlers (16.1%) were not experiencing stunting. On the other hand, from 75 respondents who were safe in providing and storing complementary foods for breastfeeding, 32 toddlers (15.2%) were found to have stunting, and 43 toddlers (20.4%) were not experiencing stunting.

Table 7
The Relationship between Responsive Feeding and Stunting Incidence

Responsive feeding	Stunting Incidence				Total	P-value	CI (Odds Ratio)
	Stunted		Not Stunted				
	n	%	N	%			
Non-responsive feeding	128	60,7	41	19,4	169	0,000	7,368
Responsive feeding	6	2,8	36	17,1	42		(18,732-47,623)

Source: Processed data by the researchers, 2023

Based on the table above, it is evident that from 169 respondents who did not practice responsive feeding in providing complementary foods for breastfeeding, 128 toddlers (60.7%) were found to have stunting, and 41 toddlers (19.4%) were not experiencing stunting. In contrast, among the 42 respondents who observed responsive feeding by providing complementary foods for breastfeeding, six toddlers (2.8%) were found to have stunting, and 36 toddlers (17.1%) were not experiencing stunting.

DISCUSSION

Timeliness of Complementary Feeding with the Incidence of Stunting

The results of the statistical test concluded that there is a significant **relationship** between the **timeliness of complementary feeding and the occurrence of stunting**, as indicated by a p-value of 0.000, which is smaller than the predetermined α value of 0.05 (0.000 < 0.05). The statistical test results yielded an odds ratio of 3.873, indicating the strength of the relationship between the variable of timeliness of complementary feeding and the occurrence of stunting. This value of 3.873 implies that without proper timing of complementary feeding, the likelihood of experiencing stunting increases by a factor of 3.873 times.

The research findings indicate a relationship between the timeliness of complementary feeding and the occurrence of stunting. Toddlers who receive complementary feeding at six months of age have a lower risk of experiencing stunting compared to infants who receive complementary feeding earlier or later than the recommended timeframe. The study also revealed that out of 139 respondents who provided complementary feeding at the appropriate time (at six months of age), 75 toddlers still exhibited stunting. According to the researchers, this could be attributed to several factors influencing the timeliness of complementary feeding. These factors include suboptimal frequency of complementary feeding provision below the standard, premature cessation of breastfeeding (stopping before two years of age) due to the misconception that introducing complementary foods or complementary feeding requires discontinuation of breastfeeding for better appetite, and a lack of dietary diversity to meet the macro-nutrient needs of complementary feeding. Additionally, other factors affecting this situation include maternal factors such as maternal malnutrition during preconception, pregnancy, and breastfeeding; short maternal height; infections; teenage pregnancies; mental health; intrauterine growth restriction (IUGR); and premature birth.

Short pregnancy intervals and hypertension also play a role. Environmental factors within the household include inadequate stimulation and activities for children, poor care and sanitation, inadequate access to clean water, insufficient food availability, improper allocation of food within the household, and inadequate caregiver education and awareness. Furthermore, the presence of infectious diseases such as acute respiratory infections, diarrhea, and parasitic infections can contribute to stunting even when complementary feeding is timely. Economic factors are also at play, with family income falling below the minimum wage, leading to a reduced emphasis on purchasing complementary feeding ingredients with higher nutritional value. This situation can be addressed through government and cross-sectoral support to enhance health promotion and education regarding affordable local complementary feeding options. By using locally sourced ingredients for complementary feeding, families with below-standard incomes can still meet daily nutritional requirements, as local ingredients are more accessible and affordable. In conclusion, the study highlights that while most respondents were on time with complementary feeding, sub-factors such as the frequency of complementary feeding and premature cessation of breastfeeding were neglected. For instance, providing MP-ASI only once a day deviates from the recommended standard for timely complementary feeding, and premature discontinuation of breastfeeding contributes to the occurrence of stunting.

According to the Ministry of Health (2014), infants and children aged 6-12 months should receive complementary feeding promptly because breast milk provides only half or more of their nutritional needs. Additionally, between the ages of 12-24 months, breast milk provides only a third of their nutritional requirements. Therefore, complementary feeding should be introduced starting when the infant is six months old. Providing complementary feeding too early, before six months of age, can substitute the role of breast milk and make it challenging to meet the infant's nutritional requirements. Giving complementary feeding too early can also increase the risk of illness. This is because the protective and hygienic aspects of complementary foods are not as strong as breast milk, and these foods are not as easily digestible as breast milk. Introducing complementary feeding too early also carries the risk of causing allergies.

The timeliness of introducing complementary feeding is crucial in reducing the risk of stunting. The appropriate time to start giving complementary feeding is when the infant reaches six months of age, as, at this stage, the infant requires higher nutritional intake than in older ages. Initiating complementary feeding at six months of age will aid the infant in acquiring the necessary nutrients for proper growth and development. Furthermore, introducing complementary feeding to a 6-month-old baby can also help lower the risk of stunting. This is because babies who receive complementary feeding at the right time will obtain the necessary nutrients they need.

The introduction of complementary feeding is best initiated at six months of age, as at this point, a baby's ability to consume semi-solid foods is ready. Starting complementary feeding should be done carefully and gradually. The introduction of complementary feeding begins with 1-2 tablespoons per day, slowly observing if the baby can swallow the food comfortably. Subsequently, the amount of complementary feeding is gradually increased to half to one bowl, with a frequency of 1-2 times a day. Furthermore, it's recommended to start complementary feeding with a liquid porridge consistency, then progressively advance to smooth porridge, thicker porridge, and solid porridge.

By the age of 9 months, babies can start consuming finely mashed home-cooked foods, and by the age of one year, they can begin to have regular meals consisting of home-cooked foods. Consequently, the timely introduction of complementary feeding is extremely important in reducing the risk of stunting.

Adequate Complementary Feeding with the Incidence of Stunting

Based on the results of the statistical test examining the relationship between adequate complementary feeding and the occurrence of stunting, a p-value of 0.000, which is less than α=0.05, was obtained. This allows us to conclude that there is a significant relationship between adequate complementary feeding and the occurrence of stunting. Furthermore, an odds ratio of 98.274 was calculated, indicating the strength of the association between the variable of providing adequate complementary feeding and the occurrence of stunting. An odds ratio of 98.274 implies that not providing adequate complementary feeding increases the likelihood of experiencing stunting by a factor of 98.274.

In this study, out of 16 respondents who provided adequate complementary feeding, two toddlers with stunting were still identified. According to the researchers, this could be attributed to the imbalanced proportion of the provided

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complementary feeding. For instance, there might be an excess of certain types of macronutrients while lacking in others, resulting in complementary feeding that contains complete yet unbalanced nutritional elements. This imbalance subsequently disrupts the growth and development of toddlers. Other factors related to the practice of providing complementary feeding beyond nutrient balance also contribute. These include improper timing of complementary feeding, inadequate safety in providing complementary feeding, and a lack of attention to responsive feeding, all of which can lead to suboptimal nutrient absorption from complementary feeding. Additionally, maternal factors such as the mother's history of short stature, nutritional status during pregnancy and breastfeeding, suboptimal breastfeeding practices, as well as environmental factors like clean and healthy living behaviors, availability of clean water access, and other environmental factors, also support the occurrence of stunting.

Adequate means that the complementary feeding provided should contain complete and balanced nutritional components, meeting the requirements of macronutrients such as carbohydrates, fats, and proteins, as well as micronutrients like vitamins and minerals. The sufficiency of complementary feeding can be assessed through factors such as the quantity, frequency, consistency, and variety of foods offered (Hanindita, 2020).

From the age of six months to twenty-three months, toddlers should receive complementary feeding alongside breastfeeding. The provision of complementary feeding is carried out to meet the nutritional needs that support growth and development, including brain development and immune system building. Complementary feeding should have adequate quality. To meet this adequate quality, complementary feeding must fulfill the necessary elements of vitamins and the required quantities by the body (Paramashanti, 2020).

Based on the researchers' conclusion, providing adequate complementary feeding plays a significant role in preventing the occurrence of stunting. In this context, adequate complementary feeding refers to feeding that contains macronutrients. These macronutrients include carbohydrates, proteins, and fats. Meanwhile, micronutrients encompass vitamins, iron, zinc, magnesium, and sodium. Insufficient iron intake can lead to anemia, which has been proven to impact cognitive function. Shortages of certain micronutrients, such as zinc, potassium, and magnesium, can affect growth and contribute to stunting (characterized by short stature due to nutritional deficiencies).

The golden period, also known as the first 1000 days of a baby's life, is a crucial period during which rapid brain, muscle, and skeletal development occurs. Essential nutrients, such as amino acids and iron, are vital for forming synapses and neurotransmitters that influence cognitive speed, subsequently impacting a child's quality of life. Therefore, providing timely and appropriate complementary feeding is essential to reduce the risk of stunting. Stunting occurs when a child doesn't receive sufficient food intake. Adequate nutrition includes foods rich in vitamins, minerals, and other essential nutrients necessary for proper bodily function. Adequate nutrition can be obtained from fruits, vegetables, processed legumes, processed grains, dairy products, and lean meat products. These foods must encompass all the necessary nutritional components for children's growth and development. To prevent stunting, children must receive adequate and sufficient nutrition every day.

Safety in the Preparation and Storage of Complementary Feeding with the Incidence of Stunting

Based on the results of the statistical test, it is evident that there is a significant **relationship** between the **adequacy of complementary feeding practices and the occurrence of stunting**, as indicated by a p-value of 0.000, which is lower than the predetermined α value of 0.05 (0.000 < 0.05). Furthermore, an odds ratio of 4.031 was obtained, demonstrating the strength of the association between the safety of complementary feeding and the storage of breast milk substitutes and the occurrence of stunting. This value of 4.031 implies that not providing safe complementary foods increases the likelihood of stunting by a factor of 4.031.

In this research, it was also found that out of the 75 respondents who followed proper practices in providing complementary feeding, 32 toddlers were still found to be stunted despite being given safe complementary foods. According to the researchers, this could be due to a lack of understanding among respondents regarding proper storage methods for complementary foods, leading to the contamination of the complementary foods. Contaminated foods are more likely to result in infections in toddlers. It's known that infections are one of the causes of stunting. Another supporting factor in this research is the home environment, including poor

maintenance, sanitation, and access to clean water within households. If not properly maintained, these factors can become sources of infections, indirectly leading to stunting. As per the Indonesian Pediatrician Association (2015), "safe" implies that complementary foods are prepared, stored safely, hygienically, and managed using clean hands and utensils. Quality ingredients are those that meet the nutritional requirements for complementary foods. Clean ingredients are those that are free from contaminants and other unsuitable substances. Safe ingredients are those that do not contain materials that could endanger human health or safety, such as substances that can cause illness, poisoning, or other health disorders (BPOM, 2020).

Complementary feeding should be safe and hygienic, which means that the process of preparation, creation, and presentation should use methods, ingredients, and utensils that are safe and hygienic. Contaminating bacteria can grow in foods such as meat, fish, eggs, vegetables, and pasta. These foods must be stored in a refrigerator at temperatures lower than degrees Celsius (Hanindita, 2020).

This study aligns with the findings of Siti Mudrikah's (2022) research on the Overview of Practices.

The conclusion drawn from the researcher's conducted study emphasizes the crucial importance of proper storage and preparation of complementary foods. This is highly connected to the occurrence of stunting. Complementary foods should be prepared and stored hygienically, and they should be provided using clean hands and utensils. The preparation, creation, and presentation process should involve safe and hygienic methods, ingredients, and utensils. Always ensure cleanliness throughout each step of the preparation process. Separate raw ingredients from cooked ones. Use clean water for cooking. Furthermore, it's necessary to cook food thoroughly and not store complementary foods at room temperature for more than 2 hours to prevent bacterial contamination. One of the causes of stunting is malnutrition, and one contributing factor is the safety of preparing and storing complementary foods. Therefore, by ensuring that children receive appropriate, safe, and high-quality complementary foods, we can prevent stunting.

Responsive Feeding in Complementary Feeding with the Incidence of Stunting

Based on the statistical test results, the **relationship** between the **Responsive Feeding variable and the occurrence of stunting** can be concluded to have a significant connection. This is indicated by a p-value of 0.000, which is smaller than the predetermined α value of 0.05 (0.000 < 0.05). Furthermore, the obtained odds ratio is 18.372, indicating the strength of the relationship between the responsive feeding variable in the provision and storage of complementary foods for breastfeeding and the occurrence of stunting. The value of 18.372 signifies that in the absence of responsive feeding in providing complementary foods for breastfeeding, there is an 18.372 times higher chance of experiencing stunting.

Based on the research findings conducted by the researcher, it can be concluded that responsive feeding in providing complementary breastfeeding foods significantly aids in the growth and development of children, which ultimately helps reduce the risk of stunting in children. In this study, out of 42 respondents who practiced responsive feeding by giving complementary foods, six toddlers with stunting were still identified. According to the researcher, this could potentially be attributed to other factors, both within the practice of providing complementary foods itself, such as the timeliness of giving complementary foods, inadequate complementary foods, lack of attention to safety in giving and storing complementary foods, as well as external factors beyond the practice of providing complementary foods, such as family and household factors including maternal factors and environmental factors, breastfeeding factors, and the presence of infectious diseases.

According to the Indonesian Pediatrician Society (2015), during the first year, infants and parents learn to recognize and interpret verbal and nonverbal communication between them. This interactive process forms the foundation of emotional attachment between the infant and the parent, which is essential for the healthy development of socioemotional functions. Infants will exhibit signs of hunger and fullness through their body language (feeding cues). If the mother pays attention to her baby's nursing cues and provides breastfeeding according to these signals, it will establish a nursing schedule that is most suitable for each individual baby, differing from other babies.

Complementary feeding is provided consistently based on the hunger or fullness signals from the child. The introduction of complementary feeding begins with the interaction between the baby and the mother or caregiver who feeds the baby. As the baby grows older, they are encouraged to feed themselves. Numerous reports and studies emphasize the importance of

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implementing responsive feeding in the context of feeding infants and children. The level of responsive feeding remains relatively low in some countries and is believed to contribute to occurrences of malnutrition. Responsive feeding can enhance the child's ability to feed themselves and their responsiveness to the verbal language of the mother (IDAI, 2015).

Responsive feeding provides appropriate and fitting stimulation to support a child's growth and development. Consequently, this helps children obtain better nutrition and facilitates optimal growth and development. Responsive feeding also aids in improving communication between parents and children, enhancing the relationship and the sense of trust that a child develops. Thus, it can contribute to reducing the likelihood of experiencing stunting.

CONCLUSION

Based on the results of the conducted research, the following conclusions can be drawn:

1. Frequency distribution of stunting occurrences revealed that among the toddlers, there were 134 cases of stunting, accounting for a percentage of 63.5% of the total sample.
2. Frequency distribution of timely provision of complementary feeding to stunted toddlers indicated that 59 toddlers received untimely complementary feeding, while 75 toddlers received timely complementary feeding.
3. Frequency distribution of adequate provision of complementary feeding to stunted toddlers revealed that 132 toddlers did not receive adequate complementary feeding, whereas two toddlers received adequate complementary feeding.
4. Frequency distribution of safety in providing and storing complementary feeding for stunted toddlers showed that 102 toddlers were in an unsafe condition, whereas 32 toddlers were in a safe condition regarding complementary feeding provision and storage.
5. Frequency distribution of responsive feeding in providing complementary feeding to stunted toddlers indicated that 128 toddlers did not experience responsive feeding, while six toddlers received responsive feeding.
6. The variable of timely provision of complementary feeding has a significant relationship with stunting occurrence, with a p-value of 0.000 < α=0.05. This suggests a strong correlation between the variable of timely complementary feeding provision and stunting occurrence.
7. The variable of adequate complementary feeding has a significant relationship with stunting occurrence, with a p-value of 0.000 < α=0.05. Therefore, it can be concluded that there is a significant relationship between adequate complementary feeding and stunting occurrence.
8. The safety variable in providing complementary feeding has a significant relationship with stunting occurrence, with a p-value of 0.000 < α=0.05. Hence, it can be concluded that there is a significant relationship between the safety of providing complementary feeding and stunting occurrence.
9. The Responsive Feeding variable has a significant relationship with stunting occurrence, with a p-value of 0.000 < α=0.05. Consequently, it can be concluded that there is a significant relationship between Responsive Feeding and stunting occurrence.

RECOMMENDATIONS

Based on the research findings, the recommendations that can be provided by the researcher are as follows:

1. For the research location:
   As a reference to enhance efforts in combating stunting, such as improving preventive and promotive measures and collaborating with relevant cross-sector parties to be closer to the community so that information and education regarding toddler nutrition can directly reach the community.
2. For future researchers:
   As a specific reference, especially for those interested in delving deeper into stunting in Way Kanan Regency (conducting further research), it is necessary to modify the independent variables, either by adding variables or expanding the time series data. This would lead to a more objective and diverse research approach.
3. For the local government of Way Kanan:
   As a guideline for future policy-making endeavors aimed at reducing the incidence of stunting in Way Kanan Regency, the government should focus on enhancing the quality of human resources, both for healthcare workers and health volunteers. A higher level of human resources will positively impact the quality of health services, and the government can work towards improving healthcare facilities, particularly in Integrated Service Post (posyandu).

4. For readers:
   To broaden insights and knowledge regarding stunting and appropriate complementary feeding practices according to standards in an effort to prevent child stunting.

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