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MATERNAL PRACTICE IN PROVIDING COMPLEMENTARY FOOD FOR INFANTS AGED 6-12 MONTHS TO PREVENTS STUNTING INCIDENCE IN CIKUNIR VILLAGE

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Abstrak

Stunting is currently still a health problem that needs to be resolved, where one of the contributing factors is providing poor nutritional intake in food or Complementary Breast Milk (MP-ASI) to children under two years old. The aim of this research is to determine the implementation of the practice of giving MP-ASI to mothers who have babies aged 6 - 12 months in an effort to prevent stunting in Cikunir Village. This type of quantitative research uses descriptive methods, with a population of 52 mothers with babies aged 6-12 months. The research results showed that 77% or 40 respondents did not pay attention to how to give MPASI properly and correctly, where the majority of mothers gave MPASI in non-neutral environmental conditions and fed for more than 30 minutes, while there were 5 variables, namely texture, frequency, variety, portion. and cleanliness is appropriate. Increasing communication of information and education by all health service settings starting from Village Midwives assisted by cadres is very important to increase the understanding of mothers of toddlers about the practice of feeding MPASI to toddlers.

Keywords: *Implementation, Practice of Giving MP-ASI, Stunting*

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1. Introduction

Stunting poses a significant and persistent nutritional challenge among young children, characterized by inadequate height compared to their age group due to prolonged insufficient nutrient intake [1] Indonesia ranks prominently in this regard, standing as the second most affected nation in Southeast Asia and the fourth globally, with approximately 24.4% of children suffering from stunting as of the 2021 Indonesian Nutrition Case Study (SSGI). Although there was a slight reduction from 27.7% in 2019, the prevalence remains a concern, surpassing countries like Vietnam (23%), Malaysia (17%), Thailand (16%), and Singapore (4%) [1].

Several determinants contribute to stunting, including inadequate prenatal nutrition for mothers, maternal malnutrition during pregnancy, maternal short stature, and suboptimal complementary feeding practices for infants, commonly referred to as Complementary Food. The provision of appropriate complementary food is crucial for children aged 6-24 months to supplement breast milk adequately as the nutritional composition of breast milk diminishes over time [2].

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Complementary food provides essential nutrients for children aged 6-24 months to supplement breast milk as the nutritional content of breast milk diminishes over time [3]. Additionally, introducing complementary foods aims to enhance a child's palate by exposing them to different tastes and textures, facilitating chewing and swallowing, and fostering acceptance of diverse foods [4].

However, in practice, complementary foods are often inadequately supplied, resulting in lower quality compared to breast milk due to poor nutrient content, incompleteness, imbalance, and lack of hygiene. Such shortcomings lead to malnutrition among toddlers, primarily stemming from inappropriate complementary feeding behaviors [5]. Poor feeding habits, insufficient breastfeeding, excessive formula use, premature introduction of complementary foods, as well as inadequate quality and frequency of complementary feeding after six months, are significant contributors to malnutrition issues, including wasting and stunting in Indonesia [4].

A preliminary investigation revealed that 22.15% of toddlers in the Singaparna health center area experienced stunting in August 2021, with Cikunir village accounting for the second-highest number, affecting 6.07% of toddlers. This study seeks to assess the implementation of complementary feeding practices among mothers with infants aged 6-12 months in Cikunir Village, Tasikmalaya District, with the goal of mitigating stunting prevalence and fostering optimal nutritional outcomes for infants in the region.

2. Method

The research adopted a quantitative approach with a descriptive methodology to investigate the implementation of complementary feeding practices among mothers with infants aged between 6 to 12 months in Cikunir Village, focusing on stunting prevention. The study's target population comprised mothers with infants falling within the specified age group residing in Cikunir Village during the period from June to July 2023. Sample selection employed purposive sampling, resulting in a total sample size of 52 mothers with infants aged 6-12 months. The research was conducted in Cikunir Village from June to August 2023.

The research instrument utilized was a structured questionnaire with two main sections. The first section captured demographic information encompassing characteristics related to both the infants (such as gender, exclusive breastfeeding history, and stunting incidence) and the mothers (including income level, education, and employment status). The second section focused on assessing the implementation of complementary feeding, encompassing six variables: texture, frequency, portion size, variety, feeding method, and hygiene practices. Respondents could choose between two response options: "yes" or "no."**.**

Data analysis employed univariate analysis techniques aimed at elucidating and describing the characteristics of each variable under investigation. This analytical approach primarily involved generating frequency distributions and presenting the findings for each variable separately.

3. Results and Discussion

a. Infants' Characteristics

Table 1. Distribution Frequency of Infant's Characteristic

No	Characteristic	f	%
1	Gender		
	a. Male	30	58
	b. Female	22	42
	Total	52	100
2	Breastfeeding		
	a. Exclusive	19	37
	b. Non-exclusive	33	63
	Total	52	100
3	Stunting Incidence		
	a. Stunting	29	55.7
	b. Normal	23	44.3
	Total	52	100

In Table 1, it is evident that the gender distribution of stunted infants skews towards females, accounting for 58% (30 individuals), while males make

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up 42% (22 individuals). Notably, a majority of these infants, 67% (33 individuals), were not exclusively breastfed, and the majority of toddlers experienced stunting, with 55.7% (29 individuals) affected.

b. Maternals' Characteristics

Table 2. Distribution Frequency of Maternals' Characteristic

No	Characteristic	f	%
1	Income		
	a. Under regional minimum wage	29	55.8
	b. Exceeds regional minimum wage	23	44.2
	Total	52	100
2	Education		
	a. Elementary School	12	23.1
	b.Junior High School		
	c. High School	7	13.5
	d. University	28	53.8
		5	9.62
	Total	52	100
3	Work		
	a. Not Working	43	82
	b. Working	9	17
	Total	52	100

Table 2 highlights that many mothers withinfants aged 6-12 months have incomes below the regional minimum wage (55.8%), and the majority have a high school education (53.8%). Furthermore, a significant % of these mothers, 82%, are not working.

c. Complementary Food Practice

Table 3. Distribution Frequency of Complementary Food Practice

Complementary Food Practice	frequency (%)		
	Appropriate		Unappropriate
1. Tectur The form of food given is according to age	49	94	3
2. Frequency The frequency complementary food being given is according to age	46	88	6
3. Portion The portion complementary food being given is according to age	50	96	2
4. Variation Does the variety of foods given at breakfast, lunch and dinner consist of Staple foods, animal protein, vegetable protein, vegetables, fruit	33	63	19
5. Technique Complementary food is given regularly (morning, afternoon, afternoon/evening) -- Feeding time does not exceed 30 minutes neutral environment (not while playing or watching TV) Does the child eat alone with a spoon and drink with a glass?	12	23	40
6. Hygiene Wash hands with soap and food with running water. Cook properly and thoroughly. Keep food at the right temperature and use safe water and raw materials.	45	87	7

Regarding Table 3, the assessment of complementary feeding practices reveals an inconsistency in one aspect. Specifically, 77% or 40 participants neglected to pay more attention to the proper methods of providing complementary food, such as ensuring correct technique and attention to detail. It is observed that most mothers offer complementary food in non-neutral environments with extenAn essential approach to combating and addressing stunting is emphasizing dietary patterns and ensuring a well-rounded nutritional intake, encapsulated in the "ISI PRINGKU."ded feeding durations exceeding 30 minutes. On the other hand, the remaining five variables - texture, frequency, variety, portion sizes, and hygiene - demonstrate appropriate practice, with most respondents

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exhibiting correct and proper practices of complementary food provision.

Stunting, a manifestation of chronic malnutrition prevalent during the critical growth and developmental phase of early childhood, manifests in diminished stature with far-reaching implications for the affected children. The etiology of stunting is multifaceted, encompassing prenatal influences and postnatal determinants that surface around the child's second year. Factors such as suboptimal caregiving practices, limited access to nutritious sustenance, potable water, sanitary facilities, and healthcare services, including antenatal care (ANC) and postnatal support, substantially contribute to the onset of stunting. Consequently, interventions within the initial 1000 days of a child's life play a pivotal role in mitigating the prevalence of stunting. Salah satu pencegahan dan penanganan stunting adalah dengan memperhatikan pola makan dan gizi seimbang yang disebut dengan ISI PRINGKU [7].

Studies revealed that the maternal methodology in administering complementary food to infants aged 6 to 12 months predominantly adheres to the five variables under examination. Notably, a significant proportion, 77% or 40 respondents, necessitate a heightened focus on the modality of providing complementary nutrition. Dispensing complementary food under appropriate conditions is paramount, as many mothers offer such feeds in non-neutral environments, extending feeding sessions beyond the recommended 30-minute timeframe prescribed by the Indonesian Pediatrician Association (IDAI). It is imperative to uphold proper feeding practices to safeguard optimal toddler development, as noted by pediatrician Dr. Fransisca Handy, SpA. advocates for the early imposition of feeding rules—correct eating behavior for children—to alleviate stress for both the caregiver and the child. While exceptions are made for six-month-old infants transitioning to complementary diets, which may extend eating durations beyond 30 minutes as they acclimate to these dietary changes, continuous feeding over prolonged periods should be avoided to ensure optimal digestive processes. Parents are encouraged to enforce appropriate feeding norms early on to cultivate healthy eating habits and foster optimal growth trajectories for their children [8].

According to Pediatric Consultant Dr. dr. Conny Tanjung, Sp.A(K), parents who allow their children to eat for too long not only result in the food tasting unpleasant, but also lead to potential oral health issues such as dental caries. Ideally, children should be given 15 minutes or a maximum of 30 minutes to eat. If there is still food left uneaten, it should not be given to the child to ensure smooth food processing in the child's stomach [9].

Untreated dental caries can progress to rampant caries, affecting multiple teeth including both front and back teeth, leading to premature shedding of primary teeth. This condition can adversely affect a child's ability to eat and receive proper nutrition. If a child struggles to eat due to dental caries, they may experience inadequate nutrient intake per day, weakened immune system, and a higher risk of malnutrition and illnesses. Several studies suggest that insufficient and unbalanced nutrition is positively related to the severity of dental caries, with children lacking adequate nutrition being more prone to higher rates of dental caries compared to those with sufficient nutrition. Furthermore, children with poor nutrition may experience salivary gland atrophy, whereas saliva plays a crucial role in cleaning the teeth and mouth, as well as preventing dental caries. Stunting is a condition resulting from inadequate nutrition in children that begins within the first 1000 days of life and has long-lasting consequences into adulthood. Dental caries represent damage to teeth that can impact the supporting structures of the teeth and even systemic conditions. It is known that there is a

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reciprocal relationship between stunting and dental caries [7].

The occurrence of stunting in Cikunir Village is influenced not only by the feeding behavior of infants but also by other contributing factors. Based on research findings, a majority of respondents have an income lower than the regional minimum wage (UMR), with 55.8% falling into this category. Family income is a crucial factor for a family's survival, particularly in meeting primary needs such as nutritional requirements, especially for families with infants. Lower income levels tend to result in inadequate nutrition, as purchasing power may restrict choices to cheaper food options and limit menu variety, thereby affecting a child's nutritional status. Research by Ardiyah has shown that families in rural or urban areas with economic challenges experience growth disturbances, leading to a higher prevalence of stunting in families with lower average monthly incomes. However, family income does not directly impact nutritional status, as it serves as a means to fulfill nutritional needs [10].

Another characteristic is that the majority of stunted toddlers in Cikunir Village are not exclusively breastfed, with 33 individuals accounting for 67% of cases. Stunting is correlated with the absence of exclusive breastfeeding. Children who do not receive breastfeeding exhibit a higher proportion of stunted growth compared to those who are breastfed. Research findings indicate that toddlers who do not receive early breastfeeding initiation are 1.3 times more likely to experience stunting, highlighting that early breastfeeding initiation, particularly exclusive breastfeeding, represents a form of maternal healthcare service and early nutritional provision that can reduce the risk of stunting in toddlers. Additionally, several studies demonstrate that toddlers who receive exclusive breastfeeding have a 9.3 times lower risk of stunting compared to those who do not. Stunting occurs in children who are not exclusively breastfed and are introduced to complementary foods and formula milk too early, rendering them more susceptible to infectious diseases such as diarrhea and respiratory illnesses. Exclusive breastfeeding serves as a critical protective factor in reducing the risk of stunting. The nutrients in breast milk are essential for the survival and future well-being of infants and toddlers. Factors influencing the provision of exclusive breastfeeding to infants and toddlers are closely linked to mothers' and families' accurate knowledge regarding exclusive breastfeeding, early initiation of breastfeeding, complementary feeding practices, and non-nutritional factors necessary for providing exclusive breastfeeding to infants and toddlers. Therefore, the crucial roles of community health workers, health promoters, and healthcare services are pivotal in supporting government programs promoting exclusive breastfeeding, disseminating accurate information on stunting and its prevention, and preparing women with knowledge on nutrition starting even before pregnancy. Educating potential mothers prior to pregnancy, monitoring mothers after childbirth to immediately practice exclusive breastfeeding, and garnering support from family members, including spouses and parents, as well as both health and non-health sectors, can collectively prevent children from experiencing stunting [11].

Heni's research findings conclude that maternal or caregiver feeding practices significantly influence childhood nutrition issues in the early stages of life, especially during the introduction of complementary feeding. Complementary feeding practices encompass both quantity and quality aspects. While interventions targeting complementary feeding practices have been extensively implemented in Indonesia, the focus has predominantly been on the types and quantities of foods provided. However, the skills required to prepare complementary feeding (food

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preparation skills) have yet to receive substantial attention and intervention, impacting a mother's ability to optimally provide appropriate complementary feeding and encourage active feeding practices (responsive feeding). In line with Mudrikah et al.'s research, there is a correlation between complementary feeding practices in aspects such as timing, adequacy, safety, accuracy in feeding, and stunting in toddlers. Thus, establishing proper and correct standards for complementary feeding practices becomes a primary focus and crucial consideration in preventing stunting in toddlers [14].

Based on the elucidation provided above, emphasizing standard complementary feeding practices is crucial in addition to meeting the necessary nutritional requirements for toddlers. Poor feeding practices, inadequate breastfeeding, excessive use of infant formula, premature introduction of complementary foods, and poor quality and frequency of complementary feeding after six months undeniably contribute to wasting and stunting in Indonesia [15].

4. Conclusion

Research findings show that among the six variables related to the provision of complimentary food, one variable yields unsatisfactory results. Specifically, 77% or 40 participants neglect the importance of appropriately giving complementary food, with most mothers offering it in non-ideal environmental settings and extending feeding durations beyond 30 minutes. Conversely, the remaining variables - texture, frequency, variety, portions, and cleanliness - demonstrate satisfactory outcomes, as most respondents adhere to the proper guidelines for providing complimentary food.

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