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Differences in Knowledge of Posyandu Cadres and Mothers of Toddlers Regarding Stunting and Its Association with Stunting Incidence in Toddlers

Perbedaan Pengetahuan Kader Posyandu dan Ibu Balita Terkait Stunting serta Hubungannya dengan Kejadian Stunting pada Balita

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ABSTRACT

Background: Stunting, a condition where children fail to grow adequately for their age, is a significant public health issue in Indonesia. Health cadres play a vital role role as sources of information and knowledge for mothers of toddlers to prevent stunting.
Objectives: To analyze differences in knowledge between Integrated Health Service Post (*Posyandu*) cadres and mothers of toddlers regarding stunting, and to examine the relationship between maternal knowledge of stunting and stunting incidence in children.
Methods: This study was conducted in Medan Maimun Subdistrict, Medan City, from June to July 2024, using a cross-sectional design. A total of 68 cadres and 79 mothers of toddlers participated as respondents. Data were collected using validated questionnaires and analyzed using univariate analysis, independent sample t-test to compare knowledge levels between groups, And Spearman's test to assess the relationship between maternal knowledge of stunting and stunting incidence.
Results: Significant differences in stunting knowledge were found between health cadres and mothers of toddlers (p-value=0.003). Additionally, a significant relationship was observed between maternal knowledge of stunting and stunting incidence in children (p-value=0.034). Stunting incidence rates among children were 22.8% and 21.5%, respectively.
Conclusions: Enhancing education and training for mothers of toddlers is essential to prevent stunting. The study also recommends strengthening the role of health cadres in delivering stunting-related education within the community.

INTRODUCTION

Children under five years old, referred to as "*balita*" in Indonesian, are those aged 0–59 months[1]. This age group experiences rapid in physical, cognitive, social, and emotional aspects development, making it a critical period for growth and development, including nutritional intake and health[2]. A significant nutritional issue affecting the growth and development of toddlers is stunting. Stunting is a condition where children fail to achieve optimal growth for their age, particularly during the first 1,000 days of life, causing delayed brain development, reduced intelligence, and increased susceptibility to illness. Stunting in children is caused by prolonged nutritional deficiencies, leading to chronically short stature relative to their age[3].

Stunting is a global nutritional challenge with widespread impacts, especially in Indonesia. The country ranks second in Southeast Asia and fifth globally for stunting prevalence. According to the United Nations Children's Fund (UNICEF), nearly half of stunted children worldwide are in Asia. In Indonesia, the 2023 National Health Survey (SKI) reported a slight decline in stunting prevalence from 21.6% (SSGI 2022) in 2022 to 21.5%. Although the prevalence has steadily decreased over the past decade (2013–2023), it remains above the 2024 National Medium-Term Development Plan (RPJMN) target of 14% and the World Health Organization (WHO) threshold of less than 20%[4]. The city of Medan is a role model for reducing stunting rates to below 14%[5].

Addressing stunting requires collaboration among parents, government, and society. The National Movement for Stunting Prevention was launched in 2018 as part of Indonesia's national development agenda, as outlined in the National Action Plan for Nutrition and Food Security[6,7]. Government efforts focus on the first 1,000 days of life (HPK) and include strengthening

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community-based health service posts (*Posyandu*). *Posyandu* serves as a community-driven initiative providing primary health services to vulnerable groups[8]. *Posyandu* cadres play a critical role in identifying and preventing stunting by monitoring and educating communities.

Posyandu (publich health service post) cadres play a critical role to address and prevent stunting. Their ability and knowledge in identifying and detecting stunting in toddlers are crucial for effectively delivering information and education to the community[9]. However, a key issue in *Posyandu* operations is the limited knowledge of cadres, including their understanding of nutrition, health, and practical skills. Enhancing the knowledge and individual competencies of cadres is essential for improving the effectiveness of *Posyandu* activities[10]. Cadres are not only responsible for disseminating information, but also for performing tasks such as measuring and weighing children to monitor stunting. Regular growth monitoring of infants and toddlers by cadres is expected to help prevent nutritional problems. A study indicates that while cadres perform these responsibilities, their effectiveness needs further improvement[11]. For instance, 86.7% of cadres had low knowledge of anthropometric measurements, and 98.3% of whom lacked sufficient understanding of balanced nutrition in Ambarawa District, Central Java[12]. Similarly, 73.3% of cadres had inadequate knowledge, and 70% of children at these *Posyandu* were stunted in South Jakarta. These findings suggest a potential relationship between cadres' knowledge and stunting prevalence in *Posyandu* settings[13].

Maternal knowledge of stunting is also a key factor in preventing and addressing this nutritional issue. Mothers need appropriate knowledge, understanding, and the ability to apply nutritional knowledge when selecting and preparing food. This is critical for ensuring their children receive adequate nutrition, thereby contributing to improved nutritional status[14]. Inadequate maternal knowledge can adversely affect children's health, increasing the risk of stunting. Knowledge influences behavior[15], and stunting—characterized by impaired linear growth due to chronic malnutrition—can be mitigated through awareness and understanding of proper nutritional intake[16]. In Pangandaran, 51.1% of mothers (95 participants) with toddlers had insufficient knowledge of stunting, which influenced their child-rearing practices. Another study indicated that, out of 10 mothers surveyed, half of whom were unaware of stunting, while the other half (5 participants) understood its definition; however, three of these mothers still lacked knowledge about its causes and prevention. Furthermore, research in Kampar District demonstrated a significant relationship between maternal knowledge and stunting prevalence, with 78.3% of mothers possessing good nutritional knowledge (p-value=0.015)[17].

Adequate knowledge about stunting among cadres is necessary to provide accurate information to mothers. Meanwhile, mothers' knowledge and practices in daily feeding and childcare play a critical role in influencing their children's growth and development. Therefore, the knowledge of both cadres and mothers about stunting is a determining factor in its prevention. This study aims to analyze the differences in knowledge about stunting between *Posyandu* cadres and mothers of toddlers in Medan. Additionally, it seeks to examine the relationship between maternal knowledge and stunting prevalence among their children. The findings of this study are expected to provide a more comprehensive understanding of the importance of education in stunting prevention and support the government and related stakeholders in formulating more effective strategies to reduce stunting rates in Medan.

METHODS

This study was designed using a cross-sectional approach, with data collection conducted within a single time frame to evaluate the relationships between the investigated variables. The research was carried out in the Medan Maimun District, Medan City, during June and July, 2024. The study location was selected purposively based on its designation as a stunting focus area (locus) in Medan City and its relatively large population compared to other districts in the city. Medan Maimun District comprises six urban villages: Aur, Hamdan, Jati, Kampung Baru, Sei Mati, and Sukaraja. Kampung Baru Health Center serves this district, overseeing 42 integrated health service posts (*Posyandu*) distributed across these urban villages. Each neighborhood head (*Kepling*) in the villages manages one *Posyandu*, which acts as a health service point for mothers and children in the area.

The study population consisted of *Posyandu* cadres and mothers of children under five residing in Medan Maimun District. According to available data, there are 210 *Posyandu* cadres and 2,626 children aged 6–59 months in this district. Respondents were selected using stratified random sampling, with cadres and mothers actively participating in *Posyandu* activities chosen randomly from the six villages. The sample size was calculated using a correlative analytic formula for ordinal numerical data, resulting in a minimum of 63 respondents for each group (cadres and mothers)[18]. However, 68 *Posyandu* cadres and 79 mothers were ultimately included in the study, representing 16 *Posyandu* across six urban villages. This selection aimed to ensure representative and homogeneous data (strata).

Data Collection

Primary data were collected through interviews and direct measurements. Knowledge data were obtained using a validated questionnaire, developed with input from experts in nutrition. The questionnaire measured the knowledge levels of cadres and mothers regarding stunting. Prior to data collection, ethical clearance was obtained from the Ethics Committee of the Faculty of Medicine, Maranatha Christian University, as in Approval Letter No: 066/KEP/VI/2024, dated June 8, 2024.

Anthropometric Measurements

Anthropometric data collected included body length or height. For children unable to stand independently, body length was measured using a Seca infantometer with an accuracy of 0.1 cm. For children able to stand, height was measured using a Seca

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microtoice stadiometer, also with an accuracy of 0.1 cm. Additionally, the age of the children was recorded in complete months for further analysis. The anthropometric data were processed using WHO Anthro software to calculate Z-scores, assessing nutritional status based on body length-for-age (LAZ) or height-for-age (HAZ) indicators. Nutritional status was categorized as severely stunted (Z-score < -3 SD), stunted (Z-score between -3 SD and < -2 SD), normal (Z-score between -2 SD and +3 SD), or tall (Z-score > +3 SD)[19]. These categories are critical for assessing child growth and identifying potential stunting based on global health standards.

Questionnaire

Respondent characteristics such as age, educational level, and occupation were documented, as these factors may influence stunting-related knowledge. The knowledge questionnaire comprised 16 items addressing topics such as the definition of stunting, its long-term impact on child growth and development, risk factors contributing to stunting, the importance of the first 1,000 days of life (HPK) in preventing stunting, the concept of exclusive breastfeeding (ASI), and examples of balanced nutrition menus.

The assessment of respondents' knowledge regarding stunting was conducted by assigning a score of 1 for correct answers and 0 for incorrect answers, enabling an evaluation of how well respondents understood the provided material. Based on the knowledge assessment results, respondents were categorized into three groups: low knowledge (scores less than 60%), moderate knowledge (scores between 60–80%), and high knowledge (scores above 80%)[20]. This categorization is crucial for understanding the distribution of knowledge levels among respondents and its implications for stunting prevention efforts in the community.

Data Analysis

Data analysis was performed using IBM SPSS Statistics version 25 and Microsoft Excel 365. Univariate analysis examined respondent characteristics, such as age, education level, occupation, and stunting-related knowledge. Knowledge scores were calculated by summing the scores of relevant variables. Independent sample t-test was employed to evaluate different stunting-related knowledge between *Posyandu* cadres and mothers. Additionally, Spearman's correlation test was applied to analyze the relationship between maternal stunting knowledge and the prevalence of stunting among children[18].

RESULTS AND DISCUSSIONS

Respondent Characteristics

Table 1 presents the characteristics of respondents, including age, education, and occupation. The findings indicate that most *Posyandu* cadres were over 45 years old, accounting for 41.2%, with the oldest being 70 years old. In contrast, the majority of mothers of toddlers were aged between 20 and 35 years old, representing 83.5%, with the youngest being 20 years old. The average age of the *Posyandu* cadres and mothers of toddlers was 45 years old and 30 years old, respectively. These findings suggest that most cadres are in the older age group, while the mothers are predominantly in the active and productive age range (20–40 years old). Differences in age between older *Posyandu* cadres and younger, productive-age mothers may affect how information is received.

Age is a factor that influences an individual's perception of information. As age increases, the ability to receive and retain information tends to decline, whereas younger individuals generally have better capacity for processing and remembering information[21]. Furthermore, age can affect cognitive patterns and receptiveness, influencing an individual's ability to absorb and interpret information.

The study also indicates a link between maternal age and the incidence of stunting in children. Mothers who are very young (<20 years old) or older (>35 years old) are at higher risk of having stunted children. Research in Bali showed that mothers over 35 years old are four times more likely to have stunted children compared to mothers who give birth at the ideal age of 20–35 years old [22]. This finding emphasizes that maternal age is a crucial factor in stunting prevention. A detailed distribution of respondents based on age characteristics is presented in Table 1.

Table 1. Characteristics of respondents (*Posyandu* cadres and mothers of toddlers)

Respondent Characteristics	*Posyandu* Cadres		Mothers of Toddlers	
	n	%	n	%
Age (years old)				
20-35	13	19.1	66	83.5
36-45	23	39.7	13	16.5
>45	28	41.2	0	0
Education				
No formal education	1	1.5	2	2.5
Primary school	1	1.5	2	2.5
Junior high school	12	17.6	22	27.8
High school/vocational school	43	54.4	37	46.8
Diploma/undergraduate	11	13.9	16	20.3
Occupation				
Housewife	54	79.4	65	82.3
Farmer	2	2.9	0	0

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Respondent Characteristics	*Posyandu* Cadres		Mothers of Toddlers	
	n	%	n	%
Ride-sharing driver	0	0	1	1.3
Civil servant/military/retired	1	1.5	0	0
Private employee	2	2.9	1	1.3
Trader/entrepreneur	9	11.4	12	15.2

The educational level of respondents is another critical factor influencing knowledge and behavior. Formal education plays a significant role in shaping critical and analytical thinking skills. It provides individuals with a broader perspective and deeper understanding for decision-making. The majority of respondents had a high school or vocational school education, accounting for 54.4% of *Posyandu* cadres and 46.8% of mothers. The education level of cadres impacts their ability to acquire and disseminate information[23]. Similarly, maternal education significantly influences maternal knowledge. Mothers with higher education levels tend to provide better childcare practices compared to those with lower education levels[24–26]. Previous research indicates that mothers with lower education (up to high school level) are 5.1 times more likely to have stunted children than those with higher education (above high school level)[25]. Maternal education plays a vital role in parenting and ensuring balanced nutrition for toddlers to prevent stunting.

Respondents' occupations also affect various aspects of their lives. Most respondents, both cadres and mothers, were housewives. Other occupations included farmers, ride-sharing drivers, civil servants, private employees, and traders/entrepreneurs. Research in Aceh Barat found a relationship between maternal employment and the appropriate provision of complementary feeding (MP-ASI)[27]. Mothers who are housewives are more likely to prepare and provide MP-ASI compared to working mothers, who may have less time to dedicate to feeding practices[27]. However, employment also influences household food purchasing, which can impact the nutritional and health status of children.

Knowledge Related to Child Stunting

Knowledge is an ability that involves acquiring, storing, and utilizing information. This ability encompasses various aspects, such as a deep understanding, experiences gained from different situations, sharpness in evaluation and analysis, and the skills required to apply the information in relevant contexts. With this combination, knowledge enables individuals to make well-informed decisions and act more effectively under various conditions[29,30]. In the context of child stunting, knowledge includes understanding the specific nutritional needs of children at different stages of development, such as the importance of exclusive breastfeeding, balanced nutritional diets, and the effects of nutrient deficiencies or excesses.

Research indicates that mothers with good nutritional knowledge are more likely to provide adequate diets and avoid nutritional problems like stunting and wasting in their children[31]. In other words, good nutritional knowledge among mothers significantly contributes to improving children's nutritional status and overall health. Nutritional knowledge can be acquired through formal education at schools or informally through print and electronic media, nutrition counseling, and other sources. This knowledge positively impacts public health, as mothers can apply it in household practices. The practical application of maternal nutritional knowledge greatly influences the nutritional conditions of families[20]. The distribution of respondents' knowledge categories related to stunting is presented in Table 2 below.

Table 2. Distribution of stunting-related knowledge and differences in knowledge between *Posyandu* cadres and mothers of toddlers

Knowledge	*Posyandu* Cadres			Mothers of Toddlers			p-value
	n	%	Mean ± SD (Min-Max)	n	%	Rata-rata ± SD (Min-Max)	
Poor (<60)	37	54.4	59.00 ± 18.08 (25 – 93.75)	56	70.9	50.44 ± 16.75 (12.50 – 87.50	0.003*
Moderate (60-80)	17	25		19	24.1		
Good (>80)	14	20.6		4	5.1		

*Independent sample t-test, significant if p-value<0.05

The data in Table 2 indicate that the majority of *Posyandu* cadres (54.4%) and mothers of toddlers (70.9%) have poor knowledge of stunting. The average nutrition knowledge score of the cadres was slightly higher than that of the mothers who use *Posyandu* services. This finding suggests that knowledge related to stunting among both groups needs to be enhanced through more intensive and targeted educational programs. The low level of knowledge directly affects their ability to prevent and address stunting in the community. Further analysis revealed that both *Posyandu* cadres and mothers lacked a full understanding of the definition of stunting—a fundamental concept in addressing chronic malnutrition. Only 42.6% of cadres and 30.4% of mothers correctly answered questions about the definition of stunting. Most respondents defined stunting incorrectly as "a mismatch of weight with age". Additional findings showed that respondents did not fully comprehend methods of assessing stunting in children, the concept of exclusive breastfeeding, and examples of balanced meals for toddlers. Many respondents believed stunting assessment relied solely

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on weight measurements, possibly because *Posyandu* activities frequently involve weighing children. Approximately half of the mothers correctly answered that exclusive breastfeeding means giving only breast milk without any additional fluids, including water, or solid foods until the child is six months old. The other half incorrectly stated that children should receive breast milk along with formula and solid foods until two years old. Conversely, cadres had a better understanding of exclusive breastfeeding and examples of healthy meals for toddlers. The low level of understanding among respondents underscores the need for more effective educational interventions, particularly on the definition and impact of stunting, to enable both groups to play more active roles in its prevention and mitigation.

The results of the independent sample t-test revealed a significant difference in knowledge levels between *Posyandu* cadres and mothers of toddlers (p-value=0.003). This disparity highlights the need to address differences in understanding between the two groups. *Posyandu* cadres are voluntary publich health workers selected by local residents based on their skills, honesty, loyalty, and dedication to improving publich health standards. They contribute significantly to stunting prevention plans[32,33]. Typically, cadres receive training to identify individual and publich health issues. They provide guidance, promote health, and refer children with nutritional problems to healthcare facilities[32]. Cadres, who generally have more intensive access to counseling and training programs, are more likely to receive formal information through regular educational activities conducted by health centers or other healthcare institutions. As part of their duties, cadres are often directly involved in *Posyandu* activities, including counseling, monitoring, and assisting mothers of toddlers, which allows them to continuously update their knowledge and access the latest information on stunting and its prevention.

Research also shows that cadres can play a vital role in assisting mothers in choosing appropriate complementary foods for their children's growth and development[34]. They are expected to bridge the knowledge gap, but the findings of this study suggest that the information cadres receive is not always effectively communicated to mothers. One contributing factor to the limited knowledge among mothers is their irregular attendance at *Posyandu* and their lack of initiative in seeking information about stunting[27]. On the other hand, inadequate counseling skills and knowledge among cadres are also reasons for suboptimal *Posyandu* services[35].

In Kupang City, cadres lacked a comprehensive understanding of stunting[28]. Most could not answer specific questions related to stunting, even though their knowledge is a primary source of information for mothers. Empowering cadres has been shown to improve mothers' knowledge and attitudes regarding child nutrition[28]. Efforts to enhance cadres' knowledge and skills are essential. Cadres must first acquire a clear understanding of stunting before educating mothers. Health education using lecture methods has been proven effective in improving knowledge among cadres aged over 35 years old[36]. Nutrition education can also utilize media such as books, leaflets, or mobile applications. Factors influencing cadres' knowledge improvement include motivation, capacity, attitudes toward information, and the methods used during education[37]. Similarly, mothers' knowledge can be improved through counseling with various media. Other studies have shown significant improvements in maternal knowledge about stunting following nutrition education interventions[38].

Knowledge of Mothers of Toddlers on Stunting and Its Relationship with Stunting Incidence

The nutritional status of toddlers is a critical health and nutritional indicator, significantly influencing early childhood health, physical growth, cognitive development, and immunity against diseases. The optimal fulfillment of nutritional needs during toddlerhood is crucial, as this period is a critical growth phase. Failure to meet these needs can result in stunting, a physical abnormality or growth impairment in toddlers. Stunting is a chronic nutritional issue caused by prolonged nutritional deficiencies and, if untreated, can negatively impact not only a child's physical development but also their cognitive, emotional, and social growth[39]. Routine monitoring at publich health service post (*Posyandu*) or other healthcare facilities can detect and address nutritional issues early, allowing children to achieve optimal growth, development, and overall health, thereby reaching their maximum potential.

Table 3 in this study outlines the characteristics of toddlers attending *Posyandu* as respondents. The sample included 79 toddlers aged 6 to 59 months. Among them, 30 children (38%) were aged 6–24 months, while 49 children (62%) were aged 25–59 months, indicating a predominance of older toddlers in this study. Male toddlers accounted for 39.2% (31 children) of the total, whereas female toddlers were more represented, comprising 60.8% (48 children). This composition highlights that the majority of respondents were female toddlers aged 25–59 months. These characteristics are crucial for understanding the respondent demographics and their potential impact on the study findings.

Table 1. Characteristics of toddlers by age and gender

Characteristics	Toddlers	
	Frequency (n)	Percentage (%)
Age (months)		
6-24	30	38
25-59	49	62
Gender		
Male	31	39.2
Female	48	60.8

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Table 4 highlights the significant prevalence of stunting among the surveyed toddlers. Specifically, 22.8% were classified as severely stunted, while 21.5% were categorized as stunted. Combined, nearly half of the toddlers exhibited significant linear growth impairments. The data also reveal that 51.8% (29 toddlers) of mothers with poor knowledge about stunting had stunted children (either severely stunted or stunted). This finding underscores that limited maternal knowledge about stunting is associated with a higher incidence of stunting among their children. Insufficient awareness and understanding of the importance of balanced nutrition, proper feeding practices, and regular growth monitoring contribute to this issue. Mothers with inadequate information about stunting prevention and management are less likely to provide adequate nutritional intake for their children, increasing the risk of stunting[40,41].

Table 4 highlights a significant relationship between maternal knowledge about stunting and the incidence of stunting among children under five, with a p-value of 0.034. Mothers with low levels of knowledge (scores<60) about stunting are at a higher risk of having stunted children. Maternal understanding of nutrition directly influences food choices, which in turn affects the child's growth and development. The correlation between maternal knowledge and the nutritional status of children under five is substantial, as evidenced by various studies. Other research has shown that mothers with good nutritional knowledge are more likely to provide appropriate and balanced meals for their children, thereby reducing the risk of stunted growth and malnutrition[42,43]. Consistent with these findings, improved maternal understanding correlates with lower stunting rates[44,45]. Studies in Sleman, Yogyakarta, for example, revealed a link between knowledge about stunting prevention and nutritional status (height-for-age, or H/A) among children under five. Mothers with higher levels of knowledge about balanced nutrition tended to have children who were not stunted[46]. Further research demonstrated that stunting among children aged 12–59 months is more prevalent among mothers with lower knowledge levels. A positive correlation exists between maternal knowledge and dietary assessment, where better maternal knowledge is associated with better dietary practices. Families with less-informed mothers are less likely to prioritize their children's nutritional needs[47]. Although maternal knowledge is crucial, other factors, such as socioeconomic status and access to healthcare services, also play significant roles in determining children's nutritional outcomes. Hence, a multifaceted approach is essential for effectively addressing malnutrition.

Table 2. Tabulation of maternal knowledge on stunting and stunting incidence in toddlers

Maternal Knowledge	Nutritional Status of Toddlers								p-value	r
	Severely Stunted		Stunted		Normal		Tall			
	n	%	n	%	n	%	n	%		
Poor (<60)	16	28,6	13	23.2	26	46.4	1	1.8	**0.034***	**0.239**
Moderate (60-80)	2	10.5	3	15.8	14	73.7	0	0		
Good (>80)	0	0	1	25.0	3	75.0	0	0		
Total	18	22.8	17	21.5	43	54.4	1	1.3		

*Spearman's test, significant at p-value<0.05

Efforts to improve nutritional outcomes require adequate knowledge about stunting and nutritional needs. Poor maternal nutritional knowledge is evident in the preparation of food ingredients and menus served at home, affecting the quality of dietary intake. As maternal knowledge about nutrition and stunting improves, so does the quality of nutrition provided[48–50]. The study highlights that most stunted children belonged to mothers with poor nutritional knowledge, emphasizing the critical role of maternal knowledge in stunting incidence.

This study's findings can inform policies focusing on strengthening the capacity of *Posyandu* cadres through structured and intensive training, enabling them to act as more effective community educators. Additionally, government and health policymakers must enhance educational programs for mothers of toddlers by facilitating accessible, regular health education sessions emphasizing stunting prevention. These measures are crucial for reducing stunting rates in Indonesia, particularly in high-prevalence areas.

This study did not include additional information sources on nutrition and health to support increased knowledge about stunting among *Posyandu* cadres and mothers of toddlers. Future research should not only focus on knowledge but also explore the attitudes and behaviors of cadres and mothers in relation to stunting prevention.

CONCLUSIONS

This study reveals a significant disparity in the level of knowledge between *Posyandu* cadres and mothers of toddlers in Medan City. This finding underscores a gap in the dissemination of stunting-related information, which ideally should flow from *Posyandu* cadres to mothers. The discrepancy indicates that the knowledge transfer process is not yet optimal, leaving mothers with an incomplete understanding of stunting and its prevention. This limited comprehension can negatively impact nutritional practices and child health maintenance at home, contributing to the high prevalence of stunting. Furthermore, the study demonstrates a significant relationship between maternal knowledge of stunting and the nutritional status (height-for-age or weight-for-height) of toddlers. Improved maternal understanding of stunting correlates with enhanced capability to maintain and meet the nutritional needs of children.

Addressing this issue requires more intensive training and socialization programs, particularly those aimed at increasing the knowledge of cadres and mothers about the importance of proper nutrition during a child's

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growth period. Regular evaluations of the effectiveness of these educational programs are essential to ensure that the knowledge imparted to mothers has a tangible and positive impact on the nutritional status of their children.

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CONFLICT OF INTEREST AND FUNDING DISCLOSURE

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AUTHOR CONTRIBUTIONS

ER: Investigation, data curation, administration; MEF: Conceptualization, analysis, supervision; KYD: Methodology, resources, supervision; LNF: Draft writing, review, and editing.

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