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## The Relationship Between Mothers' Knowledge and Attitudes Towards Stunting Prevention Practices in Toddlers

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### **Abstract**

*Stunting is a chronic nutritional problem and continues to be a significant public health challenge in Indonesia, including in the Bogor region. Mothers play a crucial role in preventing stunting through adequate knowledge, positive attitudes, and appropriate practices in nutrition and parenting. This study aimed to analyze the relationship between maternal knowledge and attitudes with stunting prevention practices at the North Bogor Health Center in March 2025. This study applied a cross-sectional design with a quantitative approach. A total of 60 mothers of toddlers were selected using a non-random accidental sampling technique. Data were collected through a validated questionnaire, using a Guttman scale for knowledge and a Likert scale for attitudes and practices. Analysis was performed using univariate and bivariate methods, with Fisher exact test and Chi-square test. The results indicated that most mothers had good knowledge (75%), positive attitudes (68.3%), and good practices (65%) in stunting prevention. A significant association was found between maternal knowledge ( $p = 0.036$ ; OR = 5.125) and attitudes ( $p < 0.001$ ; OR = 8.938) with prevention practices. In conclusion, maternal knowledge and attitudes are significantly related to stunting prevention. Strengthening maternal education and health promotion is essential to reduce stunting prevalence.*

**Keywords: Stunting, Maternal Knowledge, Attitudes, Prevention Practices, Health Promotion**

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## INTRODUCTION

Stunting is a chronic nutritional problem characterized by impaired growth in children, marked by a length or height that is below the standard for their age due to prolonged inadequate nutritional intake (World Health Organization, 2020). This condition is exacerbated by repeated infections, especially during the critical period of the first 1,000 days of life, starting from pregnancy until the child is 23 months old. Children are categorized as stunted when their height-for-age is less than minus two standard deviations based on WHO growth standards (Kementerian Kesehatan RI, 2021).

In Indonesia, stunting remains a major public health challenge. According to the Indonesian Nutritional Status Survey (SSGI), the prevalence of stunting reached 24.4% in 2021 and slightly decreased to 21.6% in 2022, but the figure is still above the WHO recommended threshold of 20%. The national target is to reduce stunting prevalence to 14% by 2024; however, in 2022, the prevalence remained above 21% (Kementerian Kesehatan RI, 2022). In Bogor, the prevalence of stunting was reported at 18.2% in 2023, and based on the February 2025 Child Weighing Month (BPB), North Bogor Health Center recorded 85 stunting cases (1.66%) (Dinas Kesehatan Kota Bogor, 2025).

The persistence of stunting reflects the multifactorial causes of the problem. External factors include socioeconomic conditions, education, food systems, sanitation, and access to health services, while internal factors involve parenting practices, breastfeeding, complementary feeding, and maternal nutritional status during pregnancy (WHO, 2019). Parents, particularly mothers, play a crucial role in preventing stunting, as they are the main decision-makers in childcare, nutrition, and health-seeking behavior (Suharto, Wildan, & Handayani, 2020). According to the Health Promotion Model, behavior is influenced by individual characteristics and experiences, while Green's theory emphasizes predisposing, enabling, and reinforcing

factors, in which knowledge and attitudes are essential determinants of health-related practices (Notoatmodjo, 2014).

Despite government efforts through the National Strategy to Accelerate Stunting Prevention, which emphasizes behavioral change communication targeting households in the first 1,000 days of life (Peraturan Presiden No. 72, 2021), challenges remain in ensuring effective maternal knowledge, attitudes, and practices. Evidence suggests that mothers with better knowledge and positive attitudes toward nutrition are more consistent in implementing stunting prevention practices, such as exclusive breastfeeding, appropriate complementary feeding, and routine child growth monitoring (Asmuji & Faridah, 2021).

Based on this context, the present study aims to analyze the relationship between maternal knowledge and attitudes with stunting prevention practices among mothers of toddlers at the North Bogor Health Center in March 2025. The findings are expected to provide evidence-based recommendations for health promotion interventions and contribute to the national effort in reducing stunting prevalence.

## RESEARCH METHODS

This study employed a quantitative method with a cross-sectional research design, which is commonly used to measure the relationship between variables at a single point in time. The research was conducted at several Posyandu units under the North Bogor Health Center, including Posyandu Kemala Bhayangkari 7 (Cibuluh), Posyandu Mawar 7A, Mawar 5A, Mawar 9B, Mawar 10 (Cimahpar), and Posyandu Delima, Dahlia, and Teratai Sindang Sari (Tanah Baru), during March–April 2025. Data collection was carried out between 17–22 March 2025.

The study population was all mothers with toddlers registered at the health center, and a total of 60 respondents were selected using a non-random accidental sampling technique. The inclusion criteria were mothers with children aged 0–59 months who attended Posyandu and agreed to participate by signing informed consent, while those unwilling to participate were excluded.

The variables studied included maternal knowledge, maternal attitudes, and maternal practices in stunting prevention. Knowledge was measured using a Guttman scale, while attitudes and practices were assessed using Likert scales. The research instrument was a structured and validated questionnaire tested for validity (Pearson Product Moment) and reliability (Cronbach's  $\alpha > 0.7$ ).

Data collection was conducted through self-administered questionnaires, assisted by trained enumerators when needed. Data processing involved editing, coding, entry, and tabulation using SPSS version 27. Univariate analysis was performed to describe respondent characteristics, while bivariate analysis using Chi-square test and Fisher's exact test was employed to examine the relationship between independent variables (knowledge and attitudes) and the dependent variable (stunting prevention practices). The strength of association was expressed in odds ratios (OR) with a 95% confidence interval and significance level of  $p < 0.05$ .

## RESULTS AND DISCUSSION

### UNIVARIATE RESULTS

**Table 1. Distribution of Mothers' Knowledge Level Regarding Stunting Prevention Practices**

Knowledge Level	Frequency	Percentage (%)
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Good	45	75.0
Fair	10	16.7
Poor	5	8.3
Total	60	100

Based on Table 4.1, out of 60 respondents, the majority of mothers had good knowledge regarding stunting prevention practices, totaling 45 respondents (75%). Meanwhile, 10 respondents (16.7%) had fair knowledge, and 5 respondents (8.3%) had poor knowledge.

**Table 2. Distribution of Mothers' Attitudes Toward Stunting Prevention in Toddlers**

Attitude	Frequency	Percentage (%)
Good	41	68.3
Fair	13	21.7
Poor	6	10.0
Total	60	100

Based on Table 4.2, out of 60 respondents, the majority of mothers had good attitudes toward stunting prevention in toddlers, totaling 41 respondents (68.3%). Meanwhile, 13 respondents (21.7%) had fair attitudes, and 6 respondents (10%) had poor attitudes.

**Table 3. Distribution of Mothers' Stunting Prevention Practices Toward Toddlers**

Practice	Frequency	Percentage (%)
Good	39	65.0
Fair	9	15.0
Poor	12	20.0
Total	60	100

Based on Table 4.3, out of 60 respondents, the majority of mothers demonstrated good stunting prevention practices toward toddlers, totaling 39 respondents (65%). Meanwhile, 9 respondents (15%) had fair practices, and 12 respondents (20%) had poor practices.

## BIVARIATE RESULTS

**Table 4. Relationship Between Mothers' Knowledge Level and Stunting Prevention Practices in Toddlers**

Knowledge Level	Practice	Total	P Value	OR (95% CI)	Knowledge Level
	Good	Fair–Poor			
Good	41 (91.1%)	4 (8.9%)	45 (100%)	0.036	Good
Fair - Poor	10 (66.7%)	5 (33.3%)	15 (100%)		Fair–Poor

Based on Table 4.4, there was a significant relationship between knowledge level and stunting prevention practices. The p-value was 0.036 with OR = 5.125, indicating that individuals with good knowledge were approximately five times more likely to engage in stunting prevention practices compared to those with fair or poor knowledge.

**Table 5 Relationship Between Mothers' Attitudes and Stunting Prevention Practices in Toddlers**

Attitude	Practice	Total	P Value	OR (95% CI)
	Good	Fair–Poor		
Good	33 (80.5%)	8 (19.5%)	41 (100%)	<0.001
Fair - Poor	6 (31.6%)	13 (68.4%)	19 (100%)	

Based on Table 4.5, there was a significant relationship between attitudes and stunting prevention practices. The p-value was <0.001 with OR = 8.938, indicating that individuals with good

attitudes were about eight times more likely to practice stunting prevention compared to those with fair or poor attitudes.

## CONCLUSION

Based on the findings of this study, it can be concluded that mothers' knowledge and attitudes play a crucial role in shaping stunting prevention practices among toddlers. The results showed that the majority of mothers demonstrated good levels of knowledge, attitudes, and practices regarding stunting prevention, which reflects the positive impact of health education and counseling provided at the community level. Furthermore, there was a significant relationship between knowledge and prevention practices, as well as between attitudes and prevention practices, indicating that mothers who possess better knowledge and more positive attitudes are more likely to apply appropriate stunting prevention behaviors. These findings emphasize the importance of continuous health promotion, education, and support for mothers, starting from pregnancy through early childhood, to strengthen their capacity in implementing effective stunting prevention practices. Strengthening maternal knowledge and attitudes is therefore essential in accelerating efforts to reduce the prevalence of stunting and improve child health outcomes.

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