

# Knowledge and Attitudes Regarding Infant Feeding Practices and Their Correlation with Stunting in Toddlers at Kesunean Community Health Center, Cirebon

1<sup>st</sup> Thysa Thysmelia Affandi

*Department of Public Health, Faculty of  
Medicine*

*Universitas Swadaya Gunung Jati  
Cirebon*

Cirebon, Indonesia  
thysmel82@gmail.com

2<sup>nd</sup> Hikmah Fitriani

*Department of Basic Medical Science,  
Faculty of Medicine*

*Universitas Swadaya Gunung Jati  
Cirebon*

Cirebon, Indonesia  
hikmahfitriani19@yahoo.com

3<sup>rd</sup> Emallia Fitriani

*Department of Pharmacology, Faculty of  
Medicine*

*Universitas Swadaya Gunung Jati  
Cirebon*

Cirebon, Indonesia  
emalliafitriani03@gmail.com

**Abstract**—Stunting is a form of chronic malnutrition characterized by impaired growth and development in children, which occurs due to prolonged inadequate nutritional intake. Based on data from the 2018 Indonesian Basic Health Research (RISKESDAS), the prevalence of stunting in Indonesia reached 29.2%, surpassing the World Health Organization (WHO) acceptable threshold of 20%. The occurrence of stunting is influenced by various factors, one of the most crucial being maternal knowledge and attitudes toward breastfeeding and complementary feeding practices. This study aimed to analyze the level of knowledge and attitudes among mothers regarding these feeding practices for toddlers at the Kesunean Community Health Center in Cirebon City. Utilizing a descriptive-analytical approach with a cross-sectional design, the study involved 281 mothers with toddlers aged 24 to 60 months, selected through purposive sampling. Data were gathered using structured questionnaires and analyzed using the Spearman correlation test. The results showed a significant negative correlation between maternal knowledge and the incidence of stunting ( $p = 0.000$ ;  $r = -0.428$ ), indicating that higher knowledge levels were associated with lower stunting rates. Additionally, a significant negative correlation was also found between maternal attitudes and stunting ( $p = 0.000$ ;  $r = -0.451$ ), suggesting that positive maternal attitudes contribute to better nutritional outcomes. Overall, the majority of mothers demonstrated sufficient knowledge and positive attitudes toward breastfeeding and complementary feeding. These findings emphasize the importance of strengthening maternal education programs to enhance awareness and improve nutritional practices for preventing stunting in toddler.

**Keywords**— *Maternal knowledge; maternal attitudes; breastfeeding; complementary feeding; stunting*

## I. INTRODUCTION

Stunting is a form of growth failure in children, indicated by a body height or length that does not match their age, based on the World Health Organization (WHO) Child Growth Standards. A child is categorized as stunted when their height-for-age is more than two standard deviations below the WHO median. This condition reflects a chronic nutritional deficiency, often rooted in various factors such as maternal nutrition during pregnancy, childhood illnesses, low-quality food intake, and socioeconomic status [1]. Globally, the WHO estimated that in 2017, approximately 150.8 million toddlers—or 26%—were affected by stunting [2]. A significant proportion of these cases occurred in Asia (55%) and Africa (39%), with South Asia contributing the most within the Asian region. Indonesia ranks as the country with the third highest prevalence of stunting in Southeast Asia, where stunting levels averaged 36.4% between 2005 and 2018. According to RISKESDAS 2018, Indonesia's national stunting rate stood at 29.2%, still above the WHO's acceptable limit of 20% [3]. To address this issue, Presidential Regulation No. 72 of 2021 targets a reduction of stunting prevalence to 14% by 2024 [4].

Stunting in toddlers is a multidimensional issue, involving both immediate and underlying causes. The UNICEF conceptual framework identifies insufficient food intake and disease as the two most direct causes of stunting. These are closely related to factors such as childcare practices, access to nutritious food, health services, and environmental hygiene. On a deeper level, stunting is also shaped by conditions at the individual and household levels, including education levels,

economic capacity, and parental awareness [5]. In particular, maternal knowledge and attitudes toward exclusive breastfeeding and appropriate complementary feeding are essential in preventing stunting. Limited awareness can stem from factors such as low maternal health literacy, cultural practices, inadequate counseling by health professionals, traditional beliefs promoting early solid food introduction, and insufficient breast milk production. Research indicates that toddlers who are not exclusively breastfed have a 3.7 to 4 times higher risk of experiencing stunting compared to those who receive exclusive breastfeeding [6][7].

Inappropriate complementary feeding practices also play a critical role in the onset of stunting among children aged 6 to 24 months, a vulnerable window for growth and development. Data from the Cirebon City Health Office illustrate the persistence of stunting cases, with 2,253 cases recorded in 2018, rising to 2,411 in 2019, then slightly decreasing to 2,360 in 2020, but increasing again to 2,411 in 2021. These trends underscore the urgency of effective interventions targeting maternal behavior and awareness. In response to this issue, the current study seeks to examine the correlation between maternal knowledge and attitudes regarding breastfeeding and complementary feeding practices and the incidence of stunting in toddlers within the area served by the Kesunean Community Health Center in Cirebon City. This research contributes to the understanding of behavioral and informational factors influencing stunting, highlighting the importance of maternal education as a preventive strategy. Furthermore, the study emphasizes the relevance of the UNICEF framework within a local Indonesian context, aligning global theory with regional data to propose evidence-based interventions.

## II. METHOD

This study adopted a quantitative research approach, utilizing a descriptive-analytical method with a cross-sectional design, which enables the collection of data on both independent (predictor) and dependent (outcome) variables at a single point in time. The study involved 281 mothers with children aged 2 to 5 years, residing in the Lemahwungkuk sub-district, which falls under the service area of the Kesunean Community Health Center in Cirebon City. A non-probability sampling technique, specifically purposive sampling, was used to select participants based on specific inclusion criteria to ensure the sample reflected the target population's characteristics.

The research was conducted from January to July 2023 at the Kesunean Community Health Center. Data were gathered using structured questionnaires administered to participants who met the established inclusion and exclusion criteria. The independent variables in this study were maternal knowledge and attitude levels, while the dependent variable was the incidence of stunting among toddlers. Descriptive statistics were employed to describe participant characteristics, with univariate data presented in frequency distribution tables. To examine the relationships between variables, bivariate analysis was conducted, focusing on the correlation between maternal knowledge and attitudes concerning breastfeeding and

complementary feeding practices and the occurrence of stunting in children. The study received ethical approval from the Ethics Committee of Universitas Swadaya Gunung Jati University (Approval No. 79/EC/FKUGJ/VI/2023).

## III. RESULTS AND DISCUSSION

This study was conducted from January to July 2023 at the Kesunean Community Health Center, Cirebon City, with a sample of 281 mothers aged 19-38 years. The majority of the mothers had attained a secondary education level (SMP and SMA).

TABLE I. GENERAL CHARACTERISTICS OF RESPONDENTS

Variable	Category	Frequency (N)	Percentage (%)
Age	19-23 years	98	34.9
	24-27 years	90	32.0
	28-31 years	54	19.2
	32-35 years	28	10.0
	36-38 years	11	3.9
Total		281	100
Education Level	SD	79	28.1
	SMP	89	31.7
	SMA	77	27.4
	Sarjana	36	12.8
Total		281	100

Univariate analysis was conducted to analyze the frequency distribution of data based on the variables studied, which included knowledge, attitudes, and stunting.

TABLE II. UNIVARIATE ANALYSIS

Variable	Category	Frequency (N)	Percentage (%)
Knowledge	Good	63	22.4
	Sufficient	200	71.2
	Poor	18	6.4
Total		281	100
Attitude	Good	54	19.2
	Sufficient	196	69.8
	Poor	31	11.0
Total		281	100
Stunting Incidence	Not stunted	174	61.9
	Stunted	107	38.1
Total		281	100

Of the 281 mothers, 63 (22.4%) demonstrated good knowledge, 200 (71.2%) had sufficient knowledge, and 18 (6.4%) had poor knowledge regarding breastfeeding and complementary feeding practices. Regarding attitudes towards breastfeeding and complementary feeding practices, 54 mothers

(19.2%) exhibited good attitudes, 196 (69.8%) had sufficient attitudes, and 31 (11%) had poor attitudes. The majority of the toddlers (174, 61.9%) were not stunted, while 107 (38.1%) were classified as stunted.

TABLE III. BIVARIATE ANALYSIS

Knowledge Level	Not Stunted	Stunted	Total
Good	N	60	3
	%	95.2%	4.8%
Sufficient	N	112	88
	%	56.0%	44.0%
Poor	N	2	16
	%	11.1%	88.9%
Total	N	174	107
	%	61.9%	38.1%
p-value	0.000		
r	0.428		

Among the toddlers whose mothers had good knowledge, all were not stunted (95.2%). Of the toddlers whose mothers had sufficient knowledge, the majority (56%) were not stunted. Of the toddlers whose mothers had poor knowledge, the majority (88.9%) were stunted. The Spearman correlation test showed a p-value of 0.000 (less than 0.05) and a correlation coefficient (r) of 0.428

TABLE IV. RELATIONSHIP BETWEEN MATERNAL KNOWLEDGE LEVEL AND STUNTING INCIDENCE AMONG TODDLERS

Attitude Level	Not Stunted	Stunted	Total
Good	N	51	3
	%	94.4%	5.6%
Sufficient	N	120	76
	%	61.2%	38.8%
Poor	N	3	28
	%	9.7%	90.3%
Total	N	174	107
	%	61.9%	38.1%
p-value	0.000		
r	0.451		

Among the toddlers whose mothers had good attitudes, all were not stunted (94.4%). Of the toddlers whose mothers had sufficient attitudes, the majority (61.2%) were not stunted. Of the toddlers whose mothers had poor attitudes, all were stunted (90.3%). The Spearman correlation test showed a p-value of 0.000 (less than 0.05) and a correlation coefficient (r) of 0.451.

## IV. CONCLUSIONS

The findings of this study reveal a moderate relationship between the level of maternal knowledge regarding breastfeeding and complementary feeding practices and the incidence of stunting among toddlers. This conclusion is supported by a p-value of 0.000 ( $p < 0.05$ ) and a correlation coefficient of  $r = 0.428$ , indicating a statistically significant association. These results suggest that mothers with higher levels of knowledge are less likely to have stunted children. The correlation found reflects the importance of accurate maternal understanding of optimal feeding practices in early childhood, particularly in the context of the Kesunean Community Health Center in Cirebon City.

Similarly, the study also identifies a moderate correlation between maternal attitudes toward breastfeeding and complementary feeding and the risk of stunting. The statistical results— $p = 0.000$  ( $p < 0.05$ ) with a correlation coefficient of  $r = 0.451$ —indicate a significant and positive association. This implies that mothers who hold positive attitudes toward proper feeding practices are more likely to implement them, thereby reducing the likelihood of stunting in their children. These findings underscore the dual importance of not only disseminating knowledge but also fostering positive behavioral and attitudinal changes among caregivers.

Based on the results, several recommendations can be proposed. For healthcare providers, the study offers valuable insights to guide stunting prevention strategies, including health promotion activities that emphasize the impact of stunting on child development, the importance of exclusive breastfeeding, and education on appropriate complementary feeding methods. For future research, it is recommended to include and control for potential confounding variables, such as socioeconomic status, maternal education level, or environmental conditions, to enhance the validity, accuracy, and generalizability of the findings in broader populations.

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