

The Relationship between Feeding Parenting and Maternal Self-Efficacy with the Incidence of Stunting in Toddlers

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Abstract

Stunting is a form of malnutrition in children under the age of five that remains a global health problem. This condition is influenced by various factors, including parenting in feeding and low maternal self-efficacy. This study aims to analyse the relationship between parenting in feeding and maternal self-efficacy with the incidence of stunting in toddlers in Kramat Jati Village, East Jakarta. This study used a quantitative design with analytic observation method and cross-sectional approach. The sample consisted of 366 mothers who had toddlers aged 12 to 59 months, with the sampling technique using Non-Probability Sampling through the Quota Sampling method. Data analysis was performed using the Chi-square test. The results showed a significant relationship between feeding parenting patterns and the incidence of stunting ($p = 0.009$; $p < 0.05$) and between maternal self-efficacy and the incidence of stunting ($p = 0.007$; $p < 0.05$). From these findings, it can be concluded that inappropriate feeding parenting and low maternal self-efficacy contribute to the incidence of stunting in toddlers. Therefore, family-based interventions are needed to improve feeding skills and strengthen mothers' self-efficacy to reduce stunting in the region.

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INTRODUCTION

Stunting is a global health problem that is a priority in nutrition improvement efforts until 2025 according Asri et al (2022) and Ritanti & Aprilia, (2024) (1,2). Based on Nutrition Status Monitoring data (2021), the prevalence of stunting in Indonesia in the last three years is higher than other nutritional problems, such as obesity or underweight (2). Although the national stunting rate has decreased, the Indonesian Health Survey (2023) reported that the prevalence of stunting in DKI Jakarta is still high, with East Jakarta recording the highest rate of 19.8% (3). In addition, based on data from the Electronic Community Based Nutrition Recording and Reporting (e-PPGBM) system in 2024, there were 746 stunted toddlers in East Jakarta. e-PPGBM is a digital recording system used by health workers to monitor the nutritional status of toddlers in real-time at the puskesmas and posyandu levels (4). Meanwhile, the Indonesian Nutrition Status Study Survey (SSGI) (2024), which is organised nationally by the Ministry of Health to periodically measure the nutritional status of the community, recorded 235 children at risk of stunting in Makasar and Kramat Jati sub-districts (4).

Stunting is not only a challenge in achieving the Sustainable Development Goals (SDGs), especially the third goal, but also has a significant impact on children's quality of life. According to Kuswanti et al (2022) and Ritanti and Aprilia (2024) (5), stunting is a condition caused by nutritional problems from pregnancy until the child is two years old. Children who are stunted have a higher risk of health problems, delays in physical and cognitive development, and an increased risk of degenerative diseases in adulthood (6). In the family environment, parenting plays a major role in the incidence of stunting. Research conducted by Suryawan et al (2022) (7) and Novi (2022) (8) showed that good

parenting, including proper feeding, hygiene, health maintenance, and psychosocial stimulation, plays an important role in determining children's nutritional status. Conversely, suboptimal parenting, especially in fulfilling children's nutritional needs, contributes significantly to stunting. In addition, maternal self-efficacy is also a key factor in preventing stunting (8). Putri et al (2023) (9) and Arini et al (2022) (10) found that mothers with high levels of self-efficacy tend to be more confident in providing appropriate nutrition for their children, thus preventing stunting.

The impact of stunting can be felt in the short and long term. In the short term, stunting can inhibit children's cognitive, motor and verbal development, while in the long term it can reduce the quality of health and individual productivity (11). Therefore, the government has implemented various intervention programmes to overcome stunting, such as supplementary feeding, iron supplementation for pregnant women, and community-based health programmes (12). This study aims to analyse the relationship between feeding parenting and maternal self-efficacy with the incidence of stunting in Kramat Jati Village, East Jakarta. In contrast to previous studies that have highlighted economic factors and macronutrient intake, this study focuses on psychosocial factors that play a role in the incidence of stunting. Thus, the results of this study are expected to fill the gap in the related literature and provide empirical evidence that can be the basis for planning family and community-based interventions, so that stunting management strategies can be more targeted at the local level.

METHODS

This study used a quantitative research design with an analytical observational approach and cross-sectional method. The population in this study included all mothers who had children aged 12-59 months in Kramat Jati Village, East Jakarta, with a population of 1.999 toddlers based on e-PPGBM data in 2024. The sampling technique was carried out with a non-probability sampling method using the Quota Sampling approach, with a total of 366 mothers as respondents. The selection of this technique is based on the consideration that this study requires a proportional distribution of samples to certain characteristics in the population. The quota was determined based on the number of toddlers in each RW to ensure a more accurate representation of various areas in Kelurahan Kramat Jati. In addition, the quota also considered the age group of the child, given that nutritional needs and diet may vary according to the developmental stage of the child.

The instruments used in this study have passed validity and reliability tests. Stunting status was measured using WHO application-based anthropometric measurements, which is a standard method in monitoring child growth. Feeding parenting variables were measured with the Parental Feeding Style Questionnaire (PFSQ) developed by Wardle and Sanderson (2002) (13), then modified in Astuti's (2014) study (14). This instrument was chosen because it is able to measure two main dimensions in feeding parenting, namely demandingness (the extent to which parents control children's food) and responsiveness (the extent to which parents are responsive to children's eating needs). The PFSQ consists of 24 questions and has been used in various studies related to child feeding patterns. Meanwhile, maternal self-efficacy variables were measured using the General Self-Efficacy Scale (GSE) developed by Matthias Jerusalem and Ralf Schwarzer in 1979 (15). This instrument consists of 10 questions and has been widely used in health psychology research to measure the level of individual confidence in facing challenges. The GSE was chosen because it is relevant to the context of this study, where mothers' self-efficacy plays a role in decision-making related to diet and parenting.

The results of the validity test with Product Moment correlation showed that there was one question on the feeding parenting variable that was invalid with a significance value (2-tailed) of 0.27 ($p < 0.05$), so it was excluded from the analysis. Meanwhile, the results of the reliability test showed that both variables had a very high level of

reliability, which confirmed that the instruments used were consistent in measuring the concepts under study. Data analysis in this study included a univariate test to describe the frequency distribution of each variable and a bivariate test using the Chi-Square method to analyse the relationship between feeding parenting, maternal self-efficacy, and the incidence of stunting. This study was approved by the Ethics Committee of the Faculty of Health Sciences UPNVJ with Number: 444/XI/2024/KEP.

RESULTS AND DISCUSSION

Table 1. Frequency Distribution of Respondents' Characteristics (N 366)

Variable	Frequency	Persentase	Median	SD
Toddler Age			32.00	13.53
Body Length at Birth			48.00	2.0
Weight at Birth			3.0	.45
Mum's Age				
Early Adulthood (20-40 years)	335	97.0		
Middle Adulthood (40-60 years)	11	3.0		
Number of Children				
Have More than >3 children	24	6.6		
Have Less than <3 children	342	93.4		
Mother's Last Education				
Junior High School	1	3		
High School	276	75.4		
Diploma	23	6.3		
Bachelor	66	18.0		
Mother's Occupations				
Employed	108	29.5		
Not Working	258	70.5		
Family Income (UMR)				
More than >Rp.5.067.381/month	134	36.6		
Less than >Rp.5.067.381/month	232	63.4		
Family Type				
Nuclear Family	307	83.9		
Extended Family	54	14.8		
Single Family	5	1.4		
Sex of Toddlers				
Male	176	48.1		
Female	190	51.9		
Feeding Parenting				
Democratic	124	33.9		
Authoritarian	110	30.1		
Permissive	132	36.1		
Meternal Self-Efficacy				
High (More than >37)	164	44.8		
Low (Less than <37)	202	55.2		
Stunting				
Stunting	31	8.5		
Not Stunted	335	91.5		

(Researcher Data, 2024) (4)

Most respondents were under-fives with a median age of 32 months, with a median birth length of 48 cm and birth weight of 3.0 kg. The majority of mothers were 20-40 years old, had fewer than three children, had a high school education, and were unemployed (258 people). Most families earned below the minimum wage (IDR 5,067,381/month) and lived in nuclear families (307 respondents). The majority of toddlers in this study were female. Permissive parenting was most prevalent, while 202 mothers had low self-efficacy. Most of the toddlers were not stunted. The results showed that parenting and maternal self-efficacy were significantly associated with stunting. Permissive parenting increases the

risk of nutritional imbalance, while responsive parenting supports optimal growth. Mothers with high self-efficacy are more proactive in maintaining their children's diet. The cross-sectional design limits the determination of causal relationships, while questionnaire data are at risk of subjective bias. Generalisability can be improved through probability sampling and longitudinal methods. These results support family interventions in stunting prevention.

Table 2. Analysis of the Relationship between Feeding Parenting and Maternal Self-Efficacy with the Incidence of Stunting in Toddlers in Kramat Jati Village, East Jakarta (n 366)

Variable	Incidence of Stunting in Toddlers		Total	p-value	OR (95%CI)
	Stunting	Not Stunted			
Feeding Parenting					
Democratic	18 (58.1%)	106 (31.6%)	124 (33.9%)	0.009	-
Authoritarian	6 (19.4%)	104 (31.0%)	110 (31.1%)		
Permissive	7 (22,6%)	125 (37.3%)	132 (36.1%)		
Meternal Self-Efficacy					
High (More than >37)	21 (67.7%)	143 (42.7%)	164 (44.8%)	0,007	2.820 (1.288-6.173)
Low (Less than <37)	10 (32.3%)	192 (57.3%)	202 (55.2%)		

(Researcher Data, 2024) (4)

Based on table 2, the results showed a significant relationship between feeding parenting patterns and the incidence of stunting in toddlers in Kramat Jati Village, with a value of $p=0.009$ ($p<0.05$). Democratic parenting had the highest proportion of stunted toddlers, 58.1%. This finding is consistent with research conducted by Pujiati et al (2021) (16), Syafei et al (2023) (17), and Dhilon et al (2022) (18), which also found a significant relationship between parenting and the incidence of stunting with a p value <0.05 . In addition, research by Taufik Page et al (2024) confirmed that inadequate parenting, especially in families with economic limitations or low understanding of nutrition, increases the risk of nutritional imbalances due to unhealthy food consumption (19). Suryawan et al (2022) identified negligent parenting as a high risk factor for stunting, characterised by minimal parental involvement in shaping children's eating habits, leading to uncontrolled eating patterns (7). Meanwhile, Novi et al (2022) highlighted that parental care acts as an indirect factor in the incidence of stunting, through children's nutritional status, which is influenced by the mother's level of understanding of the family's nutritional needs. Effective parenting includes balanced feeding, health maintenance, environmental hygiene, and psychosocial stimulation. Wardle added that controlling children's diets and diversifying nutrition are key elements in stunting prevention (8). This concept is in line with Baumrind's (1991) theory in Taufik Page (2024), which classifies parenting patterns into democratic, authoritarian, permissive, and neglectful, where neglectful parenting has the highest risk for children's nutritional status (19).

In addition, there was a significant relationship between maternal self-efficacy and the incidence of stunting in toddlers in Kramat Jati Village, East Jakarta, with a value of $p=0.007$ ($p<0.05$). The majority of mothers in this study had a low level of self-efficacy, with a total of 202 toddlers (55.2%). These results are in line with the research of Arini et al (2022), which found a significant relationship between maternal self-efficacy and child cognitive development ($p=0.000$). Mothers with high self-efficacy tend to be better able to provide optimal care and nutritional intake, while mothers with low self-efficacy often experience difficulties in providing healthy food, which has an impact on increasing the risk of stunting (10). Dwi Putri et al (2023) strengthened the evidence that low maternal self-efficacy is a significant risk factor in the incidence of stunting. Several studies have shown that mothers with low self-efficacy often face obstacles in fulfilling their children's nutritional needs, both in terms of quantity and quality. As a solution, community-

based education programmes that emphasise practical approaches, such as the use of local foods, have been proposed to improve maternal self-efficacy and support optimal child catch-up growth (9).

Anugrah et al (2024) also found that mothers with low levels of self-efficacy had more difficulty ensuring their children's nutritional adequacy, which had a negative impact on their children's growth and physical activity. In contrast, mothers with high self-efficacy were better able to provide good parenting, optimal stimulation, and support for their children's growth (20). According to Bandura (1997), self-efficacy is an individual's belief in their ability to manage and complete certain tasks, including childcare. Mothers with high self-efficacy tend to view parenting as a challenge that can be overcome, have confidence in their abilities, and keep trying despite facing obstacles. In contrast, mothers with low self-efficacy tend to feel overwhelmed, pessimistic and lack confidence, which ultimately affects parenting and the quality of child nutrition (21).

CONCLUSION

This study found a significant association between parenting style and maternal self-efficacy with the incidence of stunting in Kramat Jati, East Jakarta. Permissive parenting was the most dominant, while many mothers had low levels of self-efficacy. Therefore, family-based interventions are needed to encourage more responsive parenting and improve mothers' self-efficacy through nutrition education and mentoring. In addition, expanding access to nutritious food and strengthening social support for mothers are important steps in stunting prevention.

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