

Relationship between Mothers' Nutritional Knowledge, Feeding Practices, and Nutritional Status of Toddlers (0–59 Months of Age) in the Ikur Koto Health Center, Padang City

Wijianto^{1*}, Wahyuni², & Rafika Aini³

¹*Poltekkes Kemenkes Palu, Indonesia, ²Universitas Fort De Kock, Indonesia, ³STIKES Dharma Landbouw, Indonesia

*Co e-mail: wijigz@gmail.com¹

Article Information

Received: June 26, 2026

Revised: August 19, 2026

Online: September 22, 2026

Keywords

Nutritional Status, Mothers' Nutritional Knowledge, Feeding Practices

ABSTRACT

Nutritional status is an important indicator in assessing the quality of child growth and development. Data from the Ikur Koto Health Center shows a high prevalence of malnutrition. This study aims to analyze the relationship between mothers' nutritional knowledge, feeding practices, and nutritional status of toddlers (0–59 months of age) based on the weight-for-height (BW/H) index. The study used a cross-sectional design with a sample of 75 toddlers aged 0–59 months selected using simple random sampling. Nutritional status data were obtained through anthropometric measurements, while maternal nutritional knowledge and parenting patterns were collected using a questionnaire. Data were analyzed using univariate and bivariate methods, with the Chi-Square test used for bivariate analysis. The results showed that the prevalence of malnutrition in toddlers was 38.7%. A total of 13.3% of mothers had low nutritional knowledge and 60% of mothers had poor parenting practices. There was a significant relationship between maternal nutritional knowledge and toddler nutritional status ($p = 0.029$) OR 0.022, while maternal parenting patterns were not significantly related to toddler nutritional status ($p = 0.498$) OR 2.10). Strengthening maternal nutritional education through integrated health posts (Posyandu) and community health centers is needed as a strategy to prevent malnutrition in toddlers.

INTRODUCTION

Nutritional problems in toddlers remain a serious public health issue, especially in developing countries like Indonesia. Toddlers are highly vulnerable to nutritional disorders because they are experiencing rapid growth and development. (Justiyulfa et al., 2025). Suboptimal nutritional status during this period can have long-term impacts on health, cognitive abilities, and productivity in adulthood (Khoerunisa, Fifi Citra Wiryadi, & Khoirunnisa, 2025). Global and national reports indicate that malnutrition and wasting remain challenges, despite the implementation of various nutrition improvement programs (UNICEF, 2024).



In Indonesia, the prevalence of underweight and wasting toddlers is still found in various regions, including urban areas. According to the Indonesian Nutritional Status Survey (SSGI) and the Indonesian Health Survey (SKI), disparities in toddler nutritional status between regions indicate that social, behavioral, and children's nutritional quality is still greatly influenced by household environmental circumstances (Ministry of Health, 2025). This condition emphasizes that nutritional interventions depend not only on food availability but also on the role of families, particularly mothers, in meeting toddlers' nutritional needs.

Maternal nutritional knowledge is a crucial factor influencing the nutritional status of toddlers. Mothers with a good level of nutritional knowledge tend to be better able to select food ingredients, determine feeding patterns, and understand nutritional needs according to their child's age (Rahayuwati et al., 2019). Low maternal nutritional knowledge is associated with an increased risk of malnutrition and an unbalanced diet in toddlers (Oliin et al., 2024). Therefore, improving maternal nutritional literacy is a key strategy in preventing nutritional problems in early childhood.

A study in Nepal examined the link between maternal nutritional literacy and the nutritional condition of toddlers. The results showed that low maternal nutritional literacy significantly increases the risk of wasting and undernutrition in children. This study emphasizes the importance of maternal nutritional education interventions in preventing malnutrition in early childhood (Murillo-Llorente et al., 2025). Additionally, studies conducted in Bangladesh revealed that women with poor nutritional literacy are more likely to have children with poor nutritional status, whereas mothers with strong nutritional literacy are able to guarantee a balanced diet such that children have optimal nutritional status. These findings reinforce the importance of maternal nutritional education interventions as a strategy for preventing malnutrition in early childhood (Banu et al., 2023).

In addition to nutritional knowledge, maternal patterns of parenting also contribute to the determination of a toddler's nutritional status. Parenting patterns encompass feeding practices, health care, hygiene, and the mother's responsiveness to the child's needs. Inappropriate parenting patterns can hinder nutritional intake and increase the risk of infectious diseases, which impact a toddler's nutritional status. However, several recent studies have shown that the connection between nutritional status and parenting styles is not always consistent, as it is influenced by other factors such as family economic conditions, access to health services, and the social environment (Luh et al., 2023; Hasrul et al., 2020).

The novelty of this study lies in the simultaneous evaluation of maternal nutritional knowledge and parenting practices as maternal determinants of acute nutritional status among children aged 0–59 months using the weight-for-height (BW/H) indicator. The study demonstrates a distinct contribution of these maternal factors, showing that maternal nutritional knowledge is significantly associated with toddler nutritional status, whereas parenting practices are not. These findings provide specific empirical evidence for prioritizing maternal nutrition literacy as a strategic component of community-based interventions to prevent acute malnutrition among toddlers.

The Ikur Koto Health Service (Puskesmas) in Padang City continues to address toddler nutrition issues that require serious attention. Puskesmas data indicate that some toddlers are malnourished, based on their weight-for-height (BW/H) index. As a result, this study is essential for examining the connection between toddler nutritional status, parenting styles and maternal nutrition expertise. The novelty of this research lies in simultaneously examining the relationship

between maternal nutritional knowledge and parenting styles and toddler nutritional status, based on the BW/H indicator, in the 0–59 month age group within the Ikur Koto Puskesmas working area in Padang City in 2025. This approach provides a more contextual empirical picture of the contribution of maternal factors to malnutrition at the primary health care level.

This research differs from previous studies because it integrates two maternal determinants in a single analysis, focusing on a population and region with specific nutritional characteristics. Furthermore, the use of the BW/H indicator allows for a more focused study on acute nutritional conditions, providing a more relevant basis for planning family- and community-based nutrition interventions. The results are expected to inform the planning of more effective, evidence-based nutrition education programs at the community health center and community levels.

METHODS

This study was carried out in working area of the Ikur Koto Health Center in Padang City from January to June 2025 using a cross-sectional design. The sample size was performed using the finite population proportion estimation formula with a population of 799 toddlers, a malnutrition incidence proportion of 9.66%, a confidence level of 95% ($Z_{\alpha/2}=1.96$), and a precision of 7%, resulting in a sample size requirement of 75.7, rounded up to 76 respondents; however, based on the final research data, the analyzed sample consisted of 75 respondents. Sampling was conducted using the simple random sampling technique, meaning that every toddler aged 0–59 months registered in the working area of Puskesmas Ikur Koto had an equal chance of being randomly selected as a respondent. Inclusion criteria include toddlers aged 0–59 months residing in the research area, mothers willing to be respondents, able to communicate well, and cooperative during the research. Data on maternal nutrition knowledge and parenting patterns were collected through interviews using a structured questionnaire.

The nutritional status variable is categorized based on the weight-for-height index, classified as undernutrition if the Z-score is -3 SD to < -2 SD and not undernutrition if the Z-score is ≥ -2 SD. Meanwhile, the mother's nutritional knowledge level is categorized as poor if the score is $< 80\%$ and good if the score is $80\text{--}100\%$. The mothers' parenting pattern is categorized as poor if the total score is $<$ the mean score and good if the total score is $\geq$ the mean score. Nutritional status of toddlers was determined based on the weight/height index (BW/H) by measuring weight and height using a digital scale and microtoise. Maternal parenting patterns and nutritional knowledge were evaluated through structured questionnaire interviews. The Chi-square test was used to examine the data bivariately with a significance threshold of $p < 0.05$ and univariately to estimate the frequency distribution.

RESULTS

1. Univariate Results

a. Frequency Distribution of Nutritional Status Categories

Based on the results of the weight and height measurements, the frequency distribution of toddler nutritional status reveals that 61.3% of toddlers have good nutritional status and 38.7% are malnourished. According to this data, 38.7% of toddlers in the vicinity of the Ikur Koto Community



Health Center were classified as malnourished, which can pose a risk to their physical and mental growth. This is presented in the following table:

Table 1. Frequency Distribution of Nutritional Status Categories

Characteristics	Frequency	Percentage (%)
Malnutrition	29	38.7%
No malnutrition	46	61.3%
Amount	75	100%

b. Frequency Distribution of Mothers' Nutrition Knowledge Level

The categories of knowledge levels regarding the occurrence of malnutrition in toddlers in the Community Health Center's work area are shown in the following table based on the results of the analysis that was conducted:

Table 2. Frequency Distribution of Mothers' Nutritional Knowledge Levels

Characteristics	Frequency	Percentage (%)
Not good	10	13.3
Good	65	86.7
Total	75	100%

The analysis results showed that the majority of mothers (86.7%) had a good nutritional knowledge, while 13.3% showed a low level of nutritional knowledge. Most mothers understood the benefits of breastfeeding and the importance of providing nutritious food for toddlers. However, some mothers still lacked understanding of proper food preparation methods and the types of food that can support optimal child growth. This knowledge impacted mothers' ability to provide food that meets their toddlers' nutritional needs. Poor nutritional knowledge can contribute to inappropriate food choices for children, which can pose a risk to toddlers' nutritional status.

c. Frequency Distribution of Mothers' Parenting Patterns

The results of the study explain that the categories of parenting patterns in cases of malnutrition in toddlers in the work area of the Community Health Center are as in the following table:

Table 3. Frequency Distribution of Parenting Pattern Categories

Characteristics	Frequency	Percentage (%)
Not good	45	60
Good	30	40
Total	75	100%

In this study, 60% of mothers of toddlers had poor parenting practices, while 40% practiced good parenting practices. Based on interviews, poor parenting practices were characterized by limited feeding habits, limited variety of foods, and insufficient attention to hygiene and food management. Furthermore, most mothers did not consistently provide complementary foods at the appropriate age, and some preferred formula milk over breast milk.

2. Bivariate Results

a. The Relationship between Mothers' Nutritional Knowledge Level and Nutritional Status

The analysis showed that 33.8% of toddlers with malnutrition were born to mothers with low nutritional knowledge. This study indicates that mothers with higher nutritional knowledge are better able to manage appropriate feeding for their children, which directly impacts toddler nutritional status. The Chi-square test showed a significant relationship between maternal nutritional knowledge and toddler nutritional status ($p = 0.029$).

Table 4. Relationship between Mother's Nutrition Knowledge Level and Nutritional Status

Mother's Knowledge Level		Nutritional status						p-value	OR
		Malnutrition		Not Malnourished		Total			
a.	Not enough	7	33.8%	43	66.2%	50	100	0.029	0,022
b.	Good	22	70%	3	30%	25	100		
Total		29	38.7%	46	61.3%	75	100		

b. The Relationship between the Level of Maternal Parenting Patterns and Nutritional Status

A study involving 75 toddlers found that 60% of mothers in this area had poor parenting practices/patterns. Maternal parenting behaviors and toddler nutritional status did not significantly correlate, according to Chi-square test results ($p = 0.498$). Other, more significant variables, such as the child's health and inadequate dietary intake, may be the cause of this.

Table 5. Relationship between the Level of Maternal Parenting Patterns and Nutritional Status

Parenting	Nutritional status						p-value	OR
	Malnutrition		Not Malnourished		Total			
a. Not good	16	43.3%	17	56.7%	33	100	0.498	2,10
b. Good	13	35.6%	29	64.4%	42	100		
Total	29	38.7%	46	61.3%	75	100		

DISCUSSION

1. Nutritional status

The study results show that the prevalence of malnutrition among toddlers in the Ikur Koto Community Health Center in Padang City reached 38.7%, indicating a substantial nutritional problem in the region. These data were obtained through anthropometric measurements of weight and height and indicates that nearly 4 out of 10 toddlers are at risk of experiencing impaired physical growth and cognitive development. This finding aligns with a report by the Indonesian Ministry of Health that shows disparities in toddler nutritional status across regions in Indonesia, where social, behavioral, and household environmental factors also influence children's nutritional status (Ministry of Health, 2025).

Nutritional status is influenced by various determinants, including food intake, maternal health, the environment, and parenting practices. UNICEF's causal framework for nutrition emphasizes that direct factors, such as energy and nutrient intake, and indirect factors, such as



caregiver behavior and family socioeconomic conditions, interact to influence a child's nutritional status. This explains why, despite suboptimal maternal parenting practices, nutritional intake and infectious diseases were more dominant factors influencing the nutritional status of toddlers in the study area (Sukmana et al., 2026) .

A 2023 study by Indah et al. found that the nutritional status of most children (69.6%) was good. Nutritional status is the result of the interaction between nutrient intake and utilization by the body. Achieving good nutritional status requires a diet containing sufficient nutrients (Permatasari et al., 2023). According to a 2018 study by Apriluana & Fikawati, several factors are considered to influence nutritional intake in school children, including family. The family is the smallest unit of society. Families, especially parents, play a significant role in the feeding practices of school-age children (Apriluana & Fikawati, 2018). Therefore, parents must understand the nutritional needs of school children. Conversely, several studies less relevant to the local context indicate that parenting patterns do not always correlate significantly with nutritional status, as economic factors, food access, and children's health conditions play a greater role (Yazew & Daba, 2020).

Nutritional status in this study was assessed using anthropometric measurements, which can be influenced by the accuracy of tool usage, the position of the toddler during measurement, and the condition of the toddler at the time of data collection.

Based on research findings, the nutritional status of toddlers in the Ikur Koto Community Health Center area is directly influenced by several factors, including insufficient nutritional intake, inadequate environmental conditions, low maternal knowledge, and suboptimal child care. These findings highlight the need for applicable and sustainable maternal nutrition education, particularly regarding balanced nutrition and age-appropriate feeding practices, to support improved nutritional status among toddlers.

2. Level of Mothers' Nutrition Knowledge

The univariate analysis results showed that most mothers (86.7%) had a good level of nutritional knowledge, which included an understanding of the benefits of breastfeeding, the importance of providing nutritious food, and general ways to choose the right food for toddlers. Good maternal nutritional knowledge is a crucial factor in managing children's nutrition, as mothers with better knowledge tend to be more careful in selecting and preparing foods that meet the nutritional needs of toddlers (Akib & Zahruddin, 2023) . It will be simpler for mothers with knowledge to assimilate information and incorporate it into their everyday actions and way of life. Age, education, and experience are factors that impact knowledge. A person's strength and level of maturity will increase as they age, leading to an increase in their knowledge as they think, learn, and work (Khayati & Nur, 2020) .

This is in line with research that found that the majority of respondents were in the poor knowledge category (52.3%), while those with sufficient knowledge (44.9%) and good knowledge (2.8%) had smaller proportions. The majority of mothers do not yet have an optimal understanding of toddlers' nutritional needs. Research in Nepal and Bangladesh also reported that low maternal nutritional knowledge increases the risk of *undernutrition* and malnutrition in children (Bari et al., 2023).

Optimizing the role of mothers can be realized by strengthening their knowledge and skills. Maternal nutritional knowledge plays a crucial role in establishing healthy and responsive feeding practices. Healthy feeding practices help children develop self-regulation skills by utilizing their own hunger and satiety signals while also encouraging healthy and varied feeding practices (Costarelli et al., 2022). Therefore, increasing mothers' knowledge regarding food variety and healthy preparation methods is crucial in improving the nutritional quality of toddlers.

Improving mothers' nutritional knowledge is expected to reduce the prevalence of malnutrition in toddlers. Previous research has shown that mothers with adequate nutritional knowledge are better able to monitor their children's growth and provide nutritious food, ultimately contributing to improved nutritional status (Yuwansyah et al., 2020). Therefore, more targeted and structured educational programs, such as those conducted at integrated health posts (Posyandu) and community health centers (Puskesmas), are crucial to continuously educate mothers about the importance of adequate nutrition for toddlers.

3. Mothers' Parenting Pattern

Univariate analysis results indicate that 60% of mothers in the Ikur Koto Community Health Center work area practice poor parenting practices, as evidenced by their feeding habits and child care practices. Poor parenting practices often involve limited feeding and parenting practices that do not fully support optimal nutritional development for toddlers (Hadianti, 2025). For example, many mothers still give formula milk to toddlers even though the child can already be given complementary foods (MP-ASI). This indicates a gap between mothers' knowledge of nutrition and its application in daily life (Apriantini et al., 2024).

Furthermore, research also shows that poor parenting is often associated with a lack of attention to hygiene in food preparation and serving. Food hygiene and childcare are crucial aspects in preventing infectious diseases that can impact the nutritional status of toddlers (Noviyanti & Fatmawati, 2024). For example, mothers who do not always wash their hands before preparing food or who do not maintain the cleanliness of their eating utensils may increase the risk of causing digestive disorders in children, which ultimately affect their nutritional intake (Ningtyas et al., 2026). Therefore, although maternal parenting plays a crucial role, hygiene and proper food management must also be considered.

4. The Relationship Between Mothers' Nutritional Knowledge Level and Toddler Nutritional Status

Bivariate analysis results showed a significant relationship between maternal nutritional knowledge and toddler nutritional status based on the weight/height index ($p = 0.029$). This finding indicates that toddlers raised by mothers with low nutritional knowledge are more likely to experience malnutrition than toddlers raised by mothers with good nutritional knowledge. Maternal knowledge influences their ability to select food ingredients, determine meal portions, and prepare menus that meet toddler nutritional needs, thus directly impacting the child's nutritional status.

The results of this investigation are in line with various earlier studies. In the West Martapura Community Health Center Work Area, Banjar Regency, research by Hawazen et al. (2024) revealed a strong correlation between maternal awareness and the prevalence of toddler wasting (Hawazen



et al., 2024) . Research conducted by Wahyuni et al. (2023) found that mothers with low nutritional literacy have children with a higher risk of wasting and undernutrition. Nutritional literacy and knowledge that can be provided are about feeding infants and children, selecting and preparing healthy and nutritious food products, child growth and development, preventing stunting, seeking health services, food security, and nutritional knowledge in traditional foods.

Maternal knowledge plays a crucial role in toddler parenting because mothers and toddlers have a close bond on a daily basis. Therefore, a mother's lack of knowledge may be associated with the toddler's nutritional status. Poor practices may be influenced by several factors, one of which is the mother's habit of not paying attention to the child's food intake and allowing the child to buy snacks indiscriminately (Triveni & Hasnita, 2021) . Furthermore, the Theory of Planned Behavior explains that knowledge will shape a person's attitudes and intentions in acting, including in the practice of feeding children (Ferdianto et al., 2025) . With good nutritional knowledge, mothers tend to have positive attitudes and more appropriate behaviors in meeting the nutritional needs of toddlers.

This study is limited by its cross-sectional design, which cannot establish a causal relationship between maternal nutritional knowledge and toddler nutritional status. In addition, the relatively small sample size and the lack of analysis of confounding factors, such as dietary intake, infectious diseases, and socioeconomic status, may limit the generalizability of the findings.

Based on the research results, researchers suggest that maternal nutritional knowledge is a fundamental factor that directly influences the nutritional status of toddlers. When maternal knowledge is low, even if food is available, its utilization is not optimal. Therefore, interventions to improve toddler nutritional status should focus on applicable and sustainable maternal nutrition education, particularly regarding balanced nutrition and age-appropriate feeding practices.

5. The Relationship Between Mothers' Parenting Patterns and Toddler Nutritional Status

The bivariate analysis showed no significant relationship between maternal parenting patterns and toddler nutritional status ($p = 0.498$). This finding suggests that the quality of maternal parenting patterns in this study does not necessarily directly impact toddler nutritional status. Although most mothers had poor parenting patterns, toddler nutritional status did not differ significantly compared to mothers with good parenting patterns, particularly in terms of weight/height.

These results align with several previous studies. Research conducted by Mustikaningrum (2024) found no association between parenting styles and wasting among toddlers in Gemuh District. Research in Ethiopia and Kenya also found that parenting practices were not always directly related to children's nutritional status, when economic factors and food access were more influential (Directorate of Population Impact Analysis, 2022) . This suggests that the influence of parenting styles on nutritional status is complex and not a stand-alone phenomenon.

Theoretically, parenting is an indirect factor in determining a child's nutritional status. According to Bronfenbrenner's ecological model, parenting behavior is influenced by various systems, including social, economic, and cultural environments (Usma et al., 2025) . Furthermore, acute nutritional status (BW/H) is more influenced by food intake and infectious diseases than by

general parenting practices (Hafipah & Wijayanti, 2025). This explains why the relationship between parenting and nutritional status is not always significant.

Researchers assume that the insignificant relationship between parenting styles and toddler nutritional status in this study may be due to the homogeneity of respondents' parenting styles and the dominance of other factors such as food quality and toddler health. Poor parenting styles may not necessarily impact nutrition if mothers are still able to provide sufficient food. Therefore, nutritional interventions should not focus solely on parenting styles but must be combined with improvements in food consumption and disease prevention.

CONCLUSIONS

This study concluded that maternal nutritional knowledge significantly correlated with toddler nutritional status, based on weight-for-height (BW/H) index. Malnutrition was more frequently observed among toddlers whose mothers had poor nutritional knowledge than among those whose mothers had good nutritional knowledge. These findings confirm that maternal nutritional knowledge is a crucial factor in meeting toddler nutritional needs, particularly in determining the quality and quantity of food intake.

In contrast, maternal parenting patterns did not show a significant relationship with toddler nutritional status. This finding suggests that maternal parenting patterns were not significantly associated with acute nutritional status as assessed by the weight-for-height index in this study. Other factors such as daily nutritional intake, the incidence of infectious diseases, and access to nutritious food are thought to play a more dominant role in influencing toddler nutritional status.

Overall, the findings highlight the importance of maternal nutritional knowledge in relation to toddler nutritional status. Based on these findings, sustainable and applicable nutrition education for mothers of toddlers through integrated health posts (Posyandu) and community health centers (Puskesmas) may be considered, with an emphasis on age-appropriate feeding practices, balanced nutrition, and malnutrition prevention.

ACKNOWLEDGMENT

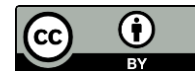
The authors extend their sincere gratitude to all respondents and everyone who contributed to this study through their participation and valuable feedback. Their support greatly contributed to the successful completion of this research.

REFERENCE

- Akib, H., & Zahrudin. (2023). HThe Relationship Between Mothers' Nutritional Knowledge and the Nutritional Status of Children Aged 3–5 Years at Posyandu Anggur, Summersari District, Jember Regency, 4(2), 219–225.
- Apriantini, E., Sagita, Y. D., Anggriani, Y., & Agustina, R. (2024). Factors Associated with Early Introduction of Complementary Feeding (MP-ASI) Among Infants Aged 0–6 Months in Tanggamus, 11(2), 396–406.
- Apriluana, G., & Fikawati, S. (2018). Analysis of Risk Factors Associated with Stunting Among Children Under Five (0–59 Months) in Developing Countries and Southeast Asia, 247–256.
- Banu, B., Haque, S., Shammi, S. A., & Hossain, M. A. (2023). Maternal Nutritional Knowledge and Determinants of Child Nutritional Status in the Northern Region of Bangladesh. *Bangladesh*



- Journal of Multidisciplinary Scientific Research*, 7(1), 11–21.
<https://doi.org/10.46281/bjmsr.v7i1.2018>
- Bari, A., Mushtaq, N., Javed, R., Ullah, H., & Rathore, A. W. (2023). Maternal Age, Nutrition and Literacy: Targeting the Root Cause for Undernutrition in Children Under the Age of Two Years, 2(1), 2–5.
- Costarelli, V., Michou, M., Panagiotakos, D. B., & Lionis, C. (2022). Parental Health Literacy and Nutrition Literacy Affect Child Feeding Practices: A Cross-Sectional Study. *Nutrition and Health*, 28(1), 59–68. <https://doi.org/10.1177/02601060211001489>
- Direktorat Analisis Dampak Kependudukan, B. R. ©. (2022). *Faktor-Faktor Penyebab Stunting dan Strategi Pencegahan Stunting di Provinsi Jawa Barat*.
- Ferdianto, A., Tiyas, D. W., & Amalia, R. (2025). Theory of Planned Behaviour: Perilaku Orang Tua dalam Pencegahan Stunting pada Anak, 9(26), 1804–1810.
- Hadianti, A. N. (2025). The Urgency of Parenting Practices and Nutritional Intake for Child Growth and Development, 5(3), 1034–1047.
- Hafipah, N., & Wijayanti, A. C. (2025). The Relationship Between Feeding Practices and a History of Infectious Diseases with Nutritional Status Among Children Under Five, 9, 933–941.
- Hasrul, Hamzah, & Aslinda, H. (2020). The Effect of Parenting Practices on Children's Nutritional Status. *Jurnal Ilmiah Kesehatan Sandi Husada*, 9, 792–797.
<https://doi.org/10.35816/jiskh.v10i2.403>
- Hawazen, Nurhamidi, & Anwar, R. (2024). The Relationship Between Mother's Knowledge, Parenting Patterns and Environmental Sanitation with Wasting Incidents in Toddlers, 6(1), 48–56.
- Justiulfah, S., & dkk. (2025). *Permasalahan Gizi Balita*.
- Kemenkes. (2025). SSGI 2024: National Stunting Prevalence Declined to 19.8%.
<https://kemkes.go.id/id/ssgi-2024-prevalensi-stunting-nasional-turun-menjadi-198>
- Khayati, A., & Nur, Y. (2020). Analysis of the Relationship Between Mothers' Nutritional Knowledge and the Nutritional Status of Children Under Five, 3, 17–22.
- Khoerunisa, I., Wiryadi, F. C., & Khoirunnisa, M. (2025). The Relationship Between Nutritional Status and Stunting Among Children Under Five at Posyandu in the Garuda Community Health Center Area in 2025, XII(1), 11–17.
- Luh, N. M., Gede, D. A. Y., & Made, D. S. F. (2023). The Relationship Between Maternal Parenting Practices and the Nutritional Status of Children Under Five in Tegaljadi Village, the Working Area of the Community Health Center, 6, 30–38.
- Murillo-Llorente, M. T., Gil-Cuñat, N., Moltó-Dominguez, S., Pérez-Murillo, J., Tejeda-Adell, M., Martínez-Peris, M., ... Pérez-Bermejo, M. (2025). Nutritional status and health challenges among schoolchildren in Nepal's Solukhumbu Valley. *Children*, 12(6).
<https://doi.org/10.3390/children12060738>
- Mustikaningrum, A. C. (2024). The Relationship Between Maternal Parenting Practices and the Incidence of Wasting (Weight-for-Height Index) in Gemuh District, Kendal Regency. *Afiasi: Jurnal Kesehatan Masyarakat*, 9(3), 252–258.
- Ningtyas, A. R., Susanti, M. E., & Aprianti, D. (2026). The Relationship Between Mothers' Personal Hygiene Knowledge and the Incidence of Diarrhea Among Children Under Five in the Working Area of Jembatan Kecil Community Health Center, Bengkulu City, 2026, 5(2), 1223–1230.
- Noviyanti, & Fatmawati, S. (2024). A Correlational Study of Maternal Personal Hygiene and the Incidence of Diarrhea Among Children Under Five in Surakarta, 5, 132–139.



- Oliin, M., Domili, I., Setiawan, D. I., & Nuryani. (2024). The Relationship Between Mothers' Nutritional Knowledge and the Nutritional Status of Children Under Five, 10(2), 77–81.
- Permatasari, I., Ritanti, & Tatiana. (2023). The Relationship Between Children's Dietary Patterns and the Nutritional Status of School-Aged Children, 12(1), 209–213.
- Rahayuwati, L., Nurhidayah, I., Hidayati, N. O., & Hendrawati, S. (2019). Analysis of Factor Affecting Nutrition Status on Children, 7(2), 119–133.
- Sukmana, O., Sudarwati, L., & Munthe, H. M. (2026). The Role of Family Nutrition Education in Stunting Prevention: A Community-Based Approach. *International Bulletin on Interdisciplinary Studies*, 1(1).
- Triveni, T., & Hasnita, Y. (2021). Complementary Feeding and Environmental Sanitation in Relation to the Incidence of Wasting Among Children Aged 0–59 Months, 4(2), 44–49.
- UNICEF. (2024). *Kajian Program Gizi Nasional Indonesia 2018–2024*.
- Usma, M., Tasari, A. S. Y., Haris, A. M. A., & Mario. (2025). Stunting Prevention from an Early Age in Enrekang Regency. *Kreatif: Jurnal Pengabdian Masyarakat Nusantara*, 5.
- Wahyuni, F. C., Karomah, U., Basrowi, R. W., Sitorus, N. L., Lestari, L. A., Kesehatan, G., ... Gadjah, U. (2023). The Relationship Between Nutrition Literacy and Nutrition Knowledge and the Incidence of Stunting: A Scoping Review = The Relationship Between Nutrition Literacy and Nutrition Knowledge with the Incidence of Stunting: A Scoping Review. *Amerta Nutrition*, 7(3), 71–85. <https://doi.org/10.20473/amnt.v7i3SP.2023.71-85>
- Yazew, T., & Daba, A. (2020). Feeding Practices and Nutritional Status of Children (Aged 2–5 Years) in Food Secure and Insecure Households in, 8(3), 55–62. <https://doi.org/10.11648/j.jfns.20200803.12>