

Efforts to Address Nutritional Problems in Toddlers: Literature Review

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Article Information	ABSTRACT
Received : 12 April 2026 Revised : 17 June 2026 Accepted : 27 June 2026	<i>The toddler period is an important stage in a child's life because during this time there is rapid growth and development, physically, psychologically, and motor development. Nutritional problems in toddlers remain a concern a public health challenge in Indonesia. The prevalence of stunting in toddlers shows a decreasing trend from 12.1% in 2013 to 10.2% in 2018 and 7.4% in 2019, but it increased again to 7.7% in 2022. This study aims to examine various efforts to address nutritional problems in toddlers based on previous research findings. The method used was a literature review through searching for articles in the Google Scholar and Pub Med databases with inclusion criteria of articles published from 2021 to 2025 and discussing nutritional interventions in toddlers. A total of 12 articles that met the inclusion criteria were analyzed. The results of the review showed that efforts to address nutritional problems in toddlers include nutrition education for mothers, provision of supplementary foods and supplementation, as well as integrated nutritional interventions. It can be concluded that integrated and sustainable nutritional interventions are effective in improving the nutritional status of toddlers.</i>
Keywords: <i>Nutritional problems in toddlers, Nutritional interventions, Nutritional status</i>	
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Introduction

The toddler period is a crucial stage in a child's life. During this time, toddlers experience rapid growth and development in various aspects, such as physical, psychological, and motor skills. Adequate and healthy nutrition during this phase is very important in determining a child's current and future health status. According to research by Kartika and Rifqi (2021), proper nutrition has a significant impact on child development. The trend of nutritional status among toddlers in Indonesia has shown a decrease, from 12.1% in 2013 to 10.2% in 2018, dropping further to 7.4% in 2019, but rising again to 7.7% in 2022 (R. I. Kemenkes, 2022). The WHO has developed evidence-based guidelines for the prevention and management of wasting and severe acute malnutrition with oedema among children under five years of age, as a response to the global need to address the persistently high rates of acute malnutrition (WHO, 2024).

The nutritional status of toddlers is determined by several interrelated factors. Direct factors include the food they consume and any infections they may experience. Indirect factors include the family's economic and social conditions, parents' education level, their knowledge of nutrition, access to health services, and how they care for their children. The way parents care for their children, especially how they feed them, is crucial because it determines the type, quantity, and quality of food the child consumes daily (Muninggar, 2020; Nazilia & Iqbal, 2020; Patty & Nugroho, 2020).

Nutritional problems in toddlers can have far-reaching impacts, both short- and long-term. Children with sub-optimal nutritional status are at risk of stunted growth, weakened immune systems, and delayed development in both cognitive and motor skills. In the longer term, these conditions can affect the quality of future human resources. Preschool-aged children are more vulnerable to nutritional problems because they are highly dependent on their parents for feeding and self-care (Ahmad & Mishra, 2022).

Nutritional problems in toddlers require integrated, evidence-based interventions to address issues such as stunting, malnutrition, and other types of malnutrition, as they remain significant challenges in many communities. Addressing nutritional issues encompasses not only meeting basic nutritional needs but also interventions involving nutrition education, supplementary feeding, and parental skills in managing nutritious meals for toddlers. Several nutritional interventions, such as supplementation and nutrition education, have been shown to improve the nutritional status of toddlers through increased nutrient intake and improved parental feeding practices (Harefa & Purba, 2025). Some interventions reported in the literature include nutrition

counseling for parents to inform them about the importance of a balanced nutritional intake, the implementation of locally sourced food-based supplementary feeding programs, and health promotion activities aimed at teaching families how to prepare healthy menus for toddlers (Simbolon et al., 2023). Furthermore, research on nutrition counseling at the community level suggests that increasing parental awareness about stunting and how to prevent it can be a key approach to reducing the prevalence of malnutrition in toddlers (Wahyuni et al., 2024).

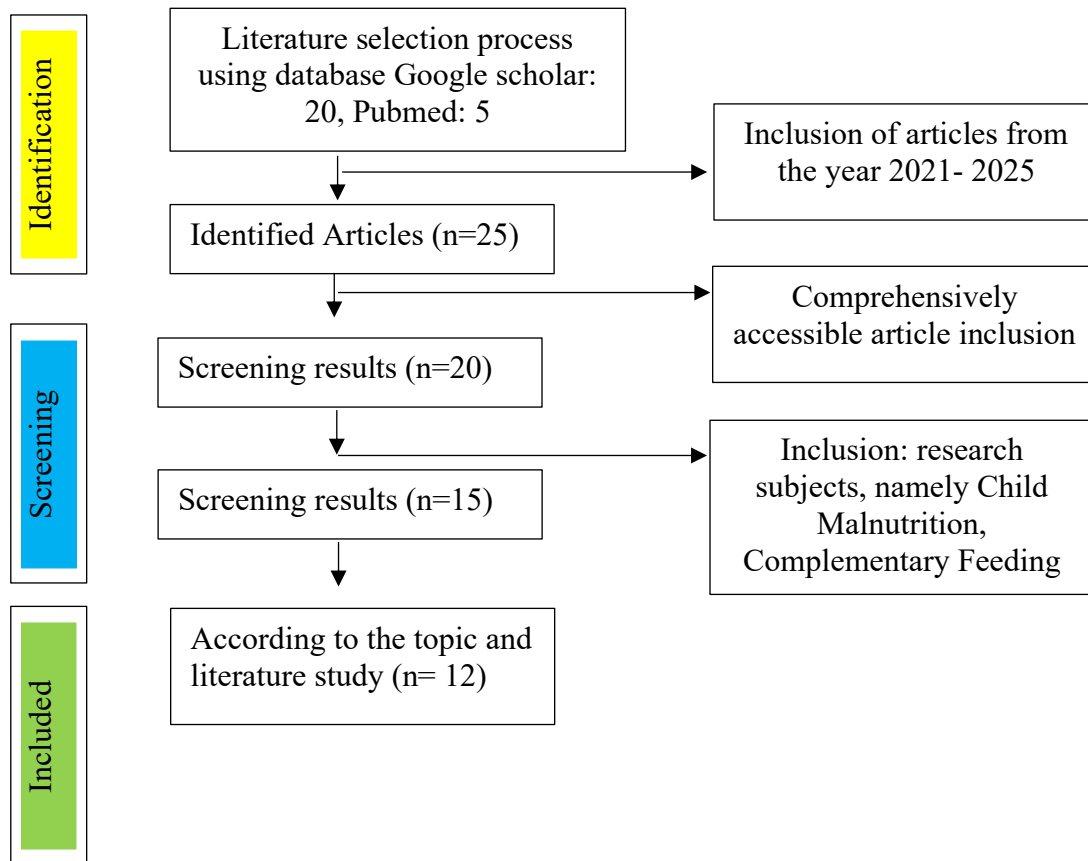
The Indonesian Nutritional Status Survey (SSGI, 2025) shows that although the national stunting rate has decreased from 37.6% in 2013 to 19.8% in 2024, other nutritional indicators, such as wasting and overweight, remain high and require attention. According to the 2024 SSGI Bulletin, the wasting rate fell from 12.1% to 7.4%, and the overweight rate fell from 11.8% to 3.4% during the same period. However, these figures still indicate complex nutritional disparities among Indonesian children.

This study aims to examine various efforts to address stunting, wasting, and overweight in toddlers through nutritional interventions based on published research results, in order to obtain an overview of effective interventions in improving the nutritional status of toddlers.

Method

The method used was a literature review with inclusion and exclusion criteria. Inclusion criteria included (1) sample: toddlers aged 0-59 months, (2) sample: mothers with toddlers, (3) articles published in journals accredited by SINTA scientific journals and reputable international journals (Scopus- indexed journals), (4) original articles, (5) articles published between 2021 and 2025, (6) articles written in English or Indonesian, (7) articles discussing efforts to address toddler nutrition issues, (8) articles using case-control, cross-sectional, and observational analytical methods, (9) articles obtained from Google Scholar, Pub Med, and Science Direct databases. Exclusion criteria included (1) opinion articles and (2) articles with a systematic review or scoping review research design. The keywords used are 1#“Child Malnutrition” OR “Under-nutrition” OR “Nutritional Status” OR “Stunting” OR “Wasting” OR “Overweight” OR “Nutritional Problems” AND #2 “Nutrition intervention” OR “Supplementation” OR “Complementary Feeding” OR “Management Efforts” OR “Nutritional Intervention” AND #3 “Under-five children” OR “Children under five” OR “Toddlers” OR “Preschool children” . The keywords used are #1 AND #2 AND #3

Furthermore, the articles were selected based on the suitability of the topic, the application of inclusion and exclusion criteria yielded 12 articles that most closely satisfied the study's eligibility requirements.



Research Results

The study results indicated that after conducting searches on Google Scholar and Pub Med, article were selected based on predetermined inclusion and exclusion criteria, and reviewing them to identify articles for discussion on efforts to address nutritional issues in toddlers.

Table 1. List of Research Articles

No	Author, Year	Purpose	Methods	Results
1.	(Elisaria et al., 2021) <i>Effectiveness of Integrated Nutrition Intervention on Childhood Stunting: A</i>	To analyze the effectiveness of integrated nutrition interventions in reducing stunting in children under aged five years old	Quasi Experimental evaluation design Two stage stratified sampling 3,457 children (intervention) and 4,145 children (control) Free: Integrated nutrition intervention (nutrition	Integrated nutrition intervention significantly reduced childhood stunting. Significant factors associated with stunting included ANC visits, gestasional age at first ANC visit, folic acid and iron supplementation, delivery at

	<i>Quasi-Experimental Evaluation Design</i>		education, health services promotion, home gardening), Bound: Childhood Stunting Univariate and Bivariate Analysis	health facilities, prelacteal feeding, early initiation of breastfeeding, and exclusive breastfeeding (p<0.05)
2.	(Chanie et al., 2021) <i>The Effect of Timely initiation of complementary feeding and vitamin A supplementation on acute malnutrition among children aged 6-59 months attending Hamusit Health Centre, Northwest Ethiopia, 2021: A cross-sectional study</i>	To determine the effect of vitamin A supplementation and the appropriate timing of complementary feeding practices on acute malnutrition in children aged 6-59 months.	Quantitative Sectional Study Systematic random sampling, 404 children aged 6-59 months attending Hamusit Health Centre, Northwest Ethiopia Free: Timely initiation of complementary feeding and vitamin A supplementation, Bound: Acute Malnutrition Binary Logistic Regression	Timely initiation of complementary feeding and vitamin A supplementation were significantly associated with a lower risk of acute malnutrition among children aged 6-59 months. Children who received timely complementary feeding and vitamin A supplementation had better nutritional status than those who did not
3.	(Maidelwita et al., 2025) <i>Effect of An Integrated Nutritional Health Intervention on Energy and Protein Intake in Under Five Year Malnourished Children</i>	To examine the effectiveness of integrated nutrition interventions with respect to energy and protein intake in malnourished preschool children	Quantitative (Quasi-experimental study) Purposive sampling, 140 malnourished children under five years of age and their mothers Free: Integrated nutritional health intervention, Bound: Energy and protein intake of malnourished children under five Paired t test and Independent t test	The integrated nutritional health intervention significantly increased energy and protein intake among malnourished children under five years of age. Children in the intervention group showed greater improvements in nutritional intake compared to the control group after the intervention
4.	(Ringgi & Keuytimu, 2022) <i>Education-based Intervention on</i>	To assess the effect of education based interventions on maternal feeding practices in Paga Village	Quantitative (Quasi experimental study) Total sampling, 45 mothers of stunted children aged 6-24 months	The education based intervention significantly improved mother's feeding practices and contributed to improved nutritional status among stunted children aged 6-

	<i>Feeding Practices of Mothers with Stunted Children at Age 6-24 Months</i>		Free: education based intervention on mother's feeding practices, Bound: Mother's feeding practices and nutritional status of stunted children Paired t- test	24 months. Mothers showed better feeding practices after receiving the educational intervention.
5.	(Gantini et al., 2022) <i>Evaluasi Pencegahan dan Penanggulangan Gizi Buruk Melalui PMT-P Balita di Desa Cikanyere Kabupaten Cianjur</i>	to evaluate the effect of providing PMT-P supplementary food on increasing the weight of toddlers	Quantitative (Experimental study) Purposive sampling, 30 toddlers participating in the PMT-P program Free: Supplementary Feeding program (PMT-P), Bound: Nutritional status of Toddlers Descriptive Analysis	The PMT-P intervention improved the nutritional status of toddlers and supported the prevention and management of malnutrition. After the intervention, children showed better nutritional outcomes, indicating that supplementary feeding program had a positive impact on child growth and nutritional recovery.
6.	(Rahmadani et al., 2025) <i>Effectiveness of nutrition education on stunting prevention behavior in mothers under five</i>	This study aims to assess the effect of nutrition education on improving mother's knowledge about preventing stunting in toddlers	Quantitative (Quasi experimental study) Purposive sampling, 100 mothers whose toddlers are aged 6-24 months registered at Posyandu or Community Health Centers Free: Nutrition Education and Feeding Assistance, Bound: Mother's Feeding practices and Nutritional status of Toddlers Paired t-test or Wilcoxon Signed Rank Test, nd Independent Sample t-test or Mann Whitney U test	Nutrition education and Feeding assistance significantly improved mother's feeding practices and toddlers' nutritional status. The intervention group demonstrated better feeding practices and nutritional outcomes compared with the control group after the intervention.
7.	(Alexander et al., 2025) <i>Nutritional Intervention In Stunting Children Aged 1-5 Years-Old Using Oral Nutritional Supplements (ONS) In Surabaya City</i>	To measure the impact of providing oral nutritional supplements (ONS) on stunted toddlers aged 1-5 years	Quantitative (Observational Analytic Study with quasi Randomized Control trial design) 20 stunted toddlers aged 1-5 years treated at Husada Hospital Surabaya Free: Oral Nutritional Supplement (ONS) intervention, Bound:	The Oral nutritional Supplementation (ONS) intervention improved the nutritional status of stunted toddlers aged 1-5 years. Significant differences in pre and post intervention outcomes were observed, and gender related differences were evaluated using comparative statistical analyses.

			Nutritional Status of stunted toddlers Sample t test or wilcoxon Signed Rank Test, and Independent Sample t test or Mann Whitney U test	
8.	(Siregar et al., 2025) <i>Stunting Prevention Behavior for Children Under Five Years of Age Based on Integrated Nutrition Education with Local Culture MARTABE: A Quasi Experiment</i>	To evaluate education based on local culture in influencing caregivers' knowledge, attitudes, and behaviors regarding stunting prevention	Quantitative (Quasi-experimental study) Purposive sampling, 50 caregivers of toddlers aged 24- 59 months in villages with a high prevalence of stunting (25 intervention; 25 control) Free: Integrated nutrition education with local culture MARTABE, Bound: Knowledge, attitude, action, and stunting prevention behavior of caregivers under five Paired t- test, Chi Square test, and Hotelling test	The MARTABE integrated nutrition education program significantly improved caregiver's knowledge (p=0.002), attitude (p=0.000), action (0.001), and stunting prevention behavior (p=0.000). The Hotelling test also demonstrated a significant overall intervention effect, indicating that the local culture based nutrition education effectively promoted positive behavior changes in caregivers of children under five.
9.	(Eliyah et al., 2025) Hubungan Tingkat Kepatuhan Konsumsi PMT Lokal dengan Status Gizi Balita Wasting di Puskesmas Bulakamba Brebes	To assess the correlation between compliance with local PMT intake and nutritional status among wasted toddlers	Quantitative (Observational Study with Cross Sectional design) Total Sampling, 80 wasting toddlers who received supplementary feeding (PMT) in the Bulukamba Public Health Center, Brebes Free: Level of compliance with local PMT consumption, Bound: Nutritional status of wasting toddlers Chi Square test	Most toddlers (63.7%) were compliant with local PMT consumption, and 60% experienced in improvement to normal nutritional status. There was a significant relationship between the level of compliance with local PMT consumption and the nutritional status of wasting toddlers (p=0.037), indicating that higher compliance was associated with better nutritional outcomes.
10.	(Prihandini et al., 2022) <i>Effectiveness of High Protein Supplementary Feeding on The Nutritional</i>	To examine the effectiveness of supplementary feeding interventions in improving the nutritional status	Quantitative (Observational study with Cross sectional design) Purposive sampling, 38 toddlers under 5 years old with risk of malnutrition and wasting	The percentage of toddlers with normal nutritional status increased from 65.8% before intervention to 68.4% after receiving high-protein supplementary feeding but decreased to 63.2% after the

	<i>Status of Toddler With Wasting Risk</i>	of under five children suffering from wasting	Free: high-protein supplementary food, Bound: Nutritional status of children Paired t-test	intervention ended. Statistical analysis showed no significant difference in nutritional status before and after the intervention (p= 0.585) and after intervention compared with the follow up period (p=0.430)
11.	(Rachmah et al., 2025) <i>The Relationship Between Supplementary Feeding Consumption Made from Local Foods and the Nutritional Status of Wasting and Stunting Toddlers</i>	To analyze the association between the intake of PMT made from local foods and the nutritional status of toddlers experiencing stunting and wasting	Quantitative (Analytical Observational with Ex Post Facto Design) Proportionate random sampling, 43 mothers of wasting and stunting toddlers who received local supplementary feeding (PMT) Free: Consumption of supplementary feeding (PMT) made from local foods), Bound: Nutritional status of wasting and stunting toddlers Chi Square test	The majority of respondents (58.1%) have consumed supplementary feeding made from local foods according to program recommendations, and 58.2% of respondents experienced an improvement in nutritional status after being given supplementary feeding made from local food according to the program.
12.	(Mulyana & Farida, 2022) Pola Pemberian Makan yang Tepat dalam Mengurangi Resiko Obesitas pada Balita	to analyze feeding patterns in toddlers as well as to educate mothers in providing meal portions for obese toddlers.	Quantitative (Analytical Observational with Case Control Design) Cluster Sampling, 8 toddlers consisting of 4 obesity and 4 non obesity controls matched by age and sex Free: Feeding pattern, Bound: Obesity in toddlers Logistic Regression analysis	There was a significant relationship between feeding patterns and obesity in toddlers (p< 0.05). Feeding patterns increased the risk of obesity by 1.04 times, indicating that greater portion size, inappropriate food types, and higher feeding frequency were associated with an increased risk of obesity in toddlers.

Table 1 presents the characteristic and findings of the 12 studies included in this literature review. The studies were published between 2021 and 2025 and mostly conducted in Indonesia (10 studies), while one study was conducted in Ethiopia and one in Tanzania. The sample size ranged from 20 to 7,612 participants. The most common study design was quasi experimental (6 studies), followed by cross sectional (3 studies), analytical observational (2 studies), and experimental (1 study).

The findings indicate that the interventions used to address nutritional problems among toddlers can be categorized into four main themes: nutrition education, supplementary feeding (PMT), nutritional supplementation, and integrated nutrition interventions. Overall, the reviewed studies reported positive outcomes, including improvements in maternal knowledge and feeding practices, increased energy and protein intake, enhanced nutritional status, reduced risk of stunting and wasting, and better child growth indicators. These findings suggest that nutritional interventions, particularly those combining educational and nutritional support components, contribute significantly to improving toddler nutritional status.

Discussion

Based on a literature review of 12 articles analyzed, efforts to address nutritional issues in toddlers include several interventions, including nutrition education for mothers and caregivers, supplementary feeding (PMT), nutrient supplementation, and integrated approaches to nutrition at the household and community levels. These interventions are reported to play a key role in boosting nutrient intake and improving the nutrition status of under five children, particularly in the undernourished and stunted groups.

Nutrition Education for mothers and caregivers

This review identified three studies (25%) that examined nutrition education interventions for mothers and caregivers, namely Ringgi and Keuytimu (2022), Rahmadani et al. (2025), and Siregar et al. (2025). These studies were conducted in Indonesia, with sample sizes ranging from 45 to 100 participants, and predominantly used quasi experimental designs. The interventions included structured nutrition education, behavior based counseling, and culturally adapted nutrition education programs.

These findings align with the Presidential Regulation of the Republic of Indonesia of Number 72 of 2021 on accelerating stunting reduction, which emphasizes that increasing family capacity through nutrition education is a key pillar in preventing and addressing toddler nutrition

issues (Perpres, 2021). Furthermore, the UNICEF (2023) report in *The State of the World's Children 2023; For Every Child*, Nutrition emphasizes that nutritional behavior change interventions at the family level are key to improving the quality of early childhood feeding, with a particular focus on the First 1,000 Days of Life. Nutrition education for mothers and caregivers has been identified as a strategic intervention to support sustained improvements in toddler nutritional status.

Supplementary Feeding

Four studies (33.3%) examined supplementary feeding interventions, namely Gantini et al. (2022), Prihandini et al. (2022), Eliyah et al. (2025), and Rachmah et al. (2025). All studies were conducted in Indonesia, with sample size ranging from 30 to 80 participants and using experimental, cross sectional, and analytical observational designs.

Based on the analysis of the reviewed articles, supplementary feeding (PMT) interventions were discussed in studies by Gantini et al. (2022), Prihandini et al. (2022), Eliyah et al. (2025), and Rachmah et al. (2025). These studies reported that PMT, particularly those based on local foods and provided regularly, contributed to increased energy and protein intake and improved nutritional status of toddlers.

According to the Indonesian Ministry of Health's policy, entitled "Technical Guidelines for Providing Local Food-Based Supplementary Feeding (PMT) for Toddlers and Pregnant Women," PMT is a specific nutritional intervention for undernourished and stunted toddlers if implemented according to quality standards, for sufficient duration, and accompanied by growth monitoring (R. Kemenkes, 2022). Furthermore, the WHO report on *Infant and Young Child Feeding* (2023) emphasizes that PMT will be more effective when combined with nutrition education and family involvement. Therefore, the success of a PMT program is greatly influenced by consumption compliance, parental involvement, and program sustainability at the community level.

Nutritional Supplementation

Two studies (16.7%) focused on nutritional supplementation, namely Chanie et al. (2021) from Ethiopia and Alexander et al. (2025) from Indonesia. Sample sizes ranged from 20 to 404 children and the studies employed cross sectional and quasi randomized controlled trial designs.

Based on the results of a literature review, nutritional supplementation interventions were discussed in studies by Chanie et al. (2021) and Alexander et al. (2025). Both studies showed that vitamin supplementation and oral nutritional supplements (ONS) were associated with

increased nutrient intake and improved nutritional status in toddlers, especially in groups at risk of malnutrition.

The Indonesian Ministry of Health (2023) in its report "11 Specific Interventions to Address Stunting Have Been Implemented in the Regions, 2 of Which Exceeded the Target" stated that vitamin and mineral supplementation is part of a specific nutritional intervention that is important to prevent the long-term impacts of micro nutrient deficiencies. Micro-nutrients, including vitamins and minerals, contribute significantly to human body. One of these is their role as co-factors for various enzymes or as structural substances in tissues such as bones and blood. Vitamins needed for toddler growth and development consist of vitamins that are classified as fat- soluble and water- soluble. Fat- soluble vitamins comprise vitamins A, D, E, K, whose absorption is highly dependent on pancreatic enzyme secretion and bile acids. Iron is also important in the formation and function of the body (Ismiati et al., 2024). Nutritional supplementation plays an effective supporting intervention, especially for toddlers at high risk of malnutrition.

Integrated Family and Community- based nutrition interventions

Two studies (16.7%) evaluated integrated nutrition interventions, namely Elisaria et al. (2021) in Tanzania and Maidelwita et al. (2025) in Indonesia. Both studies used quasi experimental approaches and involved sample sizes ranging from 140 participants to more than 7,000 children and mothers.

Based on the analysis of the reviewed articles, integrated family- and community-based nutrition interventions were discussed in the studies of Elisaria et al. (2021) and Maidelwita et al. (2025). Both studies demonstrated that a comprehensive approach combining education, growth monitoring, and family support contributed to improved nutrition practices and increased intake among toddlers.

These findings align with Presidential Decree No. 72 of 2021, which emphasizes the importance of an integrated, cross-sectoral approach to addressing nutrition and stunting issues. Furthermore, UNICEF's 2023 report, "State of the World's Children 2023- Nutrition for Every Child" states that community-based nutrition interventions are more effective in the long term because they involve families, health workers, and the entire social environment. Therefore, integrated nutrition interventions are considered the most comprehensive and sustainable approach to addressing nutritional issues in toddlers.

Overall, the review included 12 studies published between 2021 and 2025. Most studies were conducted in Indonesia (10 studies), while one study was conducted in Ethiopia and one in Tanzania. Sample sizes ranged from 20 to 7,612 participants. Quasi experimental designs were the most frequently used study design (n=6), followed by cross sectional studies (n=3), analytical observational studies (n=2), and experimental studies (n=1). Across the included studies, nutrition education, supplementary feeding, nutritional supplementation, and integrated nutrition interventions demonstrated positive effect on improving feeding practices, nutrition intake, and nutritional outcomes among toddlers. Integrated interventions appeared to provide the most comprehensive benefits because they addressed multiple determinants of malnutrition simultaneously.

Conclusion

Based on the results of a literature review of 12 articles analyzed, it can be concluded that efforts to address nutritional issues in toddlers include nutrition education for mothers and caregivers, providing supplementary feeding (PMT), nutrient supplementation, and integrated family- and community-based nutrition interventions. Nutrition education has which has been shown to enhance children's knowledge, attitudes, and feeding practices, while PMT and supplementation play a direct role in increasing energy, protein, and micro nutrient intake, thus impacting the improvement of toddlers' nutritional status, particularly in conditions of stunting, wasting, and overweight. Integrated nutrition interventions show more optimal results because they combine various approaches in a sustainable manner and involve families and health services. Thus, addressing toddler nutrition issues requires a comprehensive, integrated, and sustainable approach to be able to have a significant impact on improving nutritional status and the quality of child growth and development.

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Reference

Ahmad, S., & Mishra, S. (2022). Impact of feeding practices on nutritional status of preschool children of Lucknow district: A community based cross-sectional study. *Clinical Epidemiology and Global Health*, 15, 101011. [Impact of feeding practices on nutritional status of preschool children of Lucknow district: A community based cross-sectional study - ScienceDirect](#)

Alexander, Y. Y., Widjaja, N. A., Irawan, R., Hanindita, M. H., Noviyanti, T. R., Keya, R. T.,

- Hermanto, E., & Bahmid, M. (2025). Nutritional Intervention in Stunting Children Aged 1-5 YEARS- Old Using Oral Nutritional Supplements (ONS) in Surabaya City. *National Nutrition Journal/Media Gizi Indonesia*, 20(2). [NUTRITIONAL INTERVENTION IN STUNTING CHILDREN AGED 1-5 YEARS-OLD USING ORAL NUTRITIONAL SUPPLEMENTS \(ONS\) IN SURABAYA CITY. | EBSCOhost](#)
- Chanie, E. S., Dagne, Z., Jimma, M. S., Eyayu, T., Nebiyu, S., Wondifraw, E. B., GebreEyesus, F. A., Yemata, G. A., & Melkie, A. (2021). The effect of timely initiation of complementary feeding and vitamin A supplementation on acute malnutrition among children aged 6–59 months attending Hamusit Health Centre, Northwest Ethiopia, 2021: A cross-sectional study. *Heliyon*, 7(11). [The effect of timely initiation of complementary feeding and vitamin A supplementation on acute malnutrition among children aged 6–59 months attending Hamusit Health Centre, Northwest Ethiopia, 2021: A cross-sectional study: Heliyon](#)
- Elisaria, E., Mrema, J., Bogale, T., Segafredo, G., & Festo, C. (2021). Effectiveness of integrated nutrition interventions on childhood stunting: a quasi-experimental evaluation design. *BMC Nutrition*, 7(1), 17. [Effectiveness of integrated nutrition interventions on childhood stunting: a quasi-experimental evaluation design | BMC Nutrition | Springer Nature Link](#)
- Eliyah, I., Setyaningsih, S., & Wahyani, A. D. (2025). Hubungan Tingkat Kepatuhan Konsumsi PMT Lokal dengan Status Gizi Balita Wasting di Puskesmas Bulakamba Brebes. *Jurnal Ilmiah Gizi Kesehatan (JIGK)*, 7(01). [Hubungan Tingkat Kepatuhan Konsumsi PMT Lokal dengan Status Gizi Balita Wasting di Puskesmas Bulakamba Brebes | Jurnal Ilmiah Gizi Kesehatan \(JIGK\)](#)
- Gantini, T., Putranto, K., & Muftiah, S. (2022). Evaluasi Pencegahan dan Penanggulangan Gizi Buruk Melalui PMT-P Balita di Desa Cikanyere Kabupaten Cianjur. *AGRITEKH (Jurnal Agribisnis Dan Teknologi Pangan)*, 3(1), 51–56. [Evaluasi Pencegahan dan Penanggulangan Gizi Buruk Melalui PMT-P Balita di Desa Cikanyere Kabupaten Cianjur | AGRITEKH \(Jurnal Agribisnis dan Teknologi Pangan\)](#)
- Harefa, W. E. E. R., & Purba, T. H. (2025). Intervensi Gizi untuk Penanganan Terjadinya Gizi Kurang pada Balita Usia Dibawah Lima Tahun. *Antigen: Jurnal Kesehatan Masyarakat Dan Ilmu Gizi*, 3(1), 31–41. [Intervensi Gizi untuk Penanganan Terjadinya Gizi... - Google Scholar](#)
- Ismiati, T. T., Widhawati, R., Mahmudatussaadah, A., Dewi, F. R., Prihatina, R. A., Lestari, N. E., Laksono, R. D., Ulfa, L., & Judijanto, L. (2024). *Dasar- Dasar Gizi: Pengantar Lengkap untuk Nutrisi dan Kesehatan Optimal*. PT. Green Pustaka Indonesia. [DASAR - DASAR GIZI : Pengantar Lengkap untuk Nutrisi dan Kesehatan Optimal - Theresia Tutik Ismiati, Riswahyuni Widhawati, Ai Mahmudatussaadah, Fransiska Rosari Dewi, Ratih Agustin Prihatina, Nur Eni Lestari, Rudy Dwi Laksono, Laila Ulfa, Loso Judijanto - Google Buku](#)
- Kartika, D. A. R., & Rifqi, M. A. (2021). Hubungan Penggunaan Posyandu dengan Status Gizi

pada Balita Usia 1-5 Tahun di Indonesia: Literatur Review. *Jurnal Ilmiah Permas: Jurnal Ilmiah STIKES Kendal*, 11(4), 689–698. [Hubungan Penggunaan Posyandu dengan Status Gizi pada Balita Usia 1-5 Tahun di Indonesia: Literatur Review | Jurnal Ilmiah Permas: Jurnal Ilmiah STIKES Kendal](#)

Kemenkes. (2023). 11 Intervensi Spesifik Atasi Stunting Telah Dilaksanakan di Daerah, 2 Di Antaranya Melebihi Target. <https://kemkes.go.id/id/11-intervensi-spesifik-atasi-stunting-telah-dilaksanakan-di-daerah-2-di-antaranya-melebihi-target> [11 Intervensi Spesifik Atasi Stunting Telah Dilaksanakan... - Google Scholar](#)

Kemenkes, R. (2022). *Petunjuk teknis pemberian makanan tambahan (PMT) berbasis pangan lokal bagi balita dan ibu hamil*. <https://ayosehat.kemkes.go.id/kategori-usia/bayi-dan-balita>

Kemenkes, R. I. (2022). Profil kesehatan indonesia 2021. *Pusdatin. Kemenkes. Go. Id*, 63. [Juknis Pemberian Makanan Tambahan \(PMT\) Berbahan Pangan Lokal untuk Balita dan Ibu Hamil](#)

Maidelwita, Y., bin Sansuwito, T., & Said, F. M. (2025). Effects of An Integrated Nutritional Health Intervention on Energy and Protein Intake in Under Five-Year Malnourished Children. *Jurnal Keperawatan Indonesia*, 28(2), 107–118. [Effects of An Integrated Nutritional Health Intervention on Energy and Protein Intake in Under Five-Year Malnourished Children | Jurnal Keperawatan Indonesia](#)

Mulyana, L., & Farida, E. (2022). Pola Pemberian Makan yang Tepat dalam Mengurangi Resiko Obesitas pada Balita. *Indonesian Journal of Public Health and Nutrition*, 2(1), 36–42. [Pola Pemberian Makan yang Tepat dalam Mengurangi Resiko Obesitas pada Balita | Indonesian Journal of Public Health and Nutrition](#)

Muninggar, J. (2020). Profil Tumbuh Kembang Anak Balita dengan Malnutrisi di Desa Kesongo Kecamatan Tuntang. *Magistrorum et Scholarium: Jurnal Pengabdian Masyarakat*, 1(2), 171–185. [Profil Tumbuh Kembang Anak Balita dengan Malnutrisi di Desa Kesongo Kecamatan Tuntang | Magistrorum et Scholarium: Jurnal Pengabdian Masyarakat](#)

Nazilia, N., & Iqbal, M. (2020). Peningkatan Pengetahuan Ibu Tentang Gizi Untuk Mengatasi Gizi Buruk Pada Anak Balita Dengan Aplikasi " Anak Sehat Makan Sehat (Emas)". *Jurnal Pangan Kesehatan Dan Gizi Universitas Binawan*, 1(1), 46–53. [Peningkatan Pengetahuan Ibu Tentang Gizi Untuk Mengatasi... - Google Scholar](#)

Patty, S. R., & Nugroho, F. (2020). Kemiskinan dan malnutrisi pada anak balita dalam keluarga nelayan di wilayah pesisir kota serang. *Empati: Jurnal Ilmu Kesejahteraan Sosial*, 8 (2), 109–125. [pdf-libre.pdf](#)

Perpres, R. (2021). *Peraturan Presiden Republik Indonesia Nomor 72 tahun 2021 Tentang Percepatan Penurunan Stunting*. <https://peraturan.bpk.go.id/Home/Details/174964/perpres-no-72-tahun-2021> [PERPRES No. 72 Tahun 2021](#)

- Prihandini, Y. A., Torizellia, C., & Nurfitriani, N. (2022). Effectiveness of High Protein Supplementary Feeding on The Nutritional Status of Toddler With Wasting Risk. *Jurnal Berkala Kesehatan*, 8(2), 108–115. [Effectiveness of High Protein Supplementary Feeding on The Nutritional Status of Toddler With Wasting Risk | Prihandini | Jurnal Berkala Kesehatan](#)
- Rachmah, S., Mawaddah, N., & Rahim, R. A. A. (2025). The Relationship Between Supplementary Feeding Consumption Made from Local Foods and the Nutritional Status of Wasting and Stunting Toddlers. *Jurnal Kesehatan Komunitas Indonesia*, 5(2), 131–146. [The Relationship Between Supplementary Feeding Consumption Made from Local Foods and the Nutritional Status of Wasting and Stunting Toddlers | Jurnal Kesehatan Komunitas Indonesia](#)
- Rahmadani, R. A., Setiawati, A., Aris, I., Lontaan, A., & Prasetyowati, P. (2025). Effectiveness of nutrition education on stunting prevention behavior in mothers under five. *Jurnal Edukasi Ilmiah Kesehatan*, 3(1), 1–8. [Effectiveness of nutrition education on stunting prevention behavior in mothers under five | Jurnal Edukasi Ilmiah Kesehatan](#)
- Ringgi, M. S. I. N., & Keuytimu, Y. M. H. (2022). Intervensi Berbasis Edukasi pada Ibu terhadap Feeding Practice Ibu dalam Upaya Peningkatan Status Gizi Anak Stunting pada Usia 6-24 Bulan. *Jurnal Kesehatan*, 13(1), 118–123. [25a604214efb63a9bd6c397e609886370735.pdf](#)
- Simbolon, D., Pasmah, A. F., Zahara, A., Utami, D. S., Awan, F. A., Sari, I. P., Oktiera, M., Lestari, P. A., Maharani, S., & Marseli, T. D. (2023). Intervensi gizi balita malnutrisi melalui pemberian makanan tambahan berbasis pangan lokal dan lomba cooking class di wilayah kerja puskesmas Lingkar Timur, Bengkulu. *ADM: Jurnal Abdi Dosen Dan Mahasiswa*, 1(3), 271–278. [Intervensi Gizi Balita Malnutrisi melalui Pemberian Makanan Tambahan Berbasis Pangan Lokal dan Lomba Cooking Class di Wilayah Kerja Puskesmas Lingkar Timur, Bengkulu | ADM : Jurnal Abdi Dosen dan Mahasiswa](#)
- Siregar, Y. A., Batubara, N., Hadi, A. J., & Ahmad, H. (2025). Stunting Prevention Behavior for Children Under Five Years of Age Based on Integrated Nutrition Education with Local Culture MARTABE: A Quasi Experiment. *Journal of Public Health and Pharmacy*, 5(3), 590–606. [Stunting Prevention Behavior for Children Under Five Years of Age Based on Integrated Nutrition Education with Local Culture MARTABE: A Quasi Experiment | Journal of Public Health and Pharmacy](#)
- SSGI. (2025). *Survei Status Gizi Indonesia (SSGI) 2024: Kemajuan Berkelanjutan dalam Mengatasi Malnutrisi Anak. 2021–2024*. [Survei Status Gizi Indonesia \(SSGI\) 2024: Kemajuan... - Google Scholar](#)
- UNICEF. (2023). *The State of the world's children 2023; For every child, nutrition*. New York: UNICEF. <https://www.unicef.org/reports/state-worlds-children-2023> [The State of the World's Children 2023 | UNICEF](#)

- Wahyuni, Y. F., Fitriani, A., Iswani, R., Mawarni, S., Savina, S., Akla, N., & Friscila, I. (2024). Penyuluhan Gizi Dalam Upaya Pencegahan Stunting Bagi Ibu Balita Di Puskesmas Syamtalira Bayu. *Jurnal Abdimas ITEKES Bali*, 3(2), 117–123. [Penyuluhan Gizi Dalam Upaya Pencegahan Stunting Bagi Ibu Balita Di Puskesmas Syamtalira Bayu | Jurnal Abdimas ITEKES Bali](#)
- WHO. (2023). *Infant and Young Child Feeding*. <https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding> [Infant and Young Child Feeding. https://www.who.int/news-... - Google Scholar](#)
- WHO. (2024). *WHO guideline on the prevention and management of wasting and nutritional oedema (acute malnutrition) in infants and children under 5 years*. World Health Organization. <https://www.who.int/publications/i/item/9789240082830> [WHO guideline on the prevention and management of wasting and nutritional ... - World Health Organization - Google Buku](#)