



Article Review

Risk Factors Associated with Stunting in Children Under Five in Indonesia: A Systematic Literature Review

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ABSTRACT

Background: Stunting remains a major public health problem in Indonesia and reflects chronic nutritional deprivation during early childhood. Although national prevalence has declined in recent years, the rate remains above the World Health Organization threshold, indicating persistent and multifactorial determinants. This study aimed to identify and synthesize the main risk factors associated with stunting among children under five years of age in Indonesia.

Methods: A systematic literature review was conducted using four stages: identification, screening, eligibility, and inclusion. Articles published between 2019 and 2024 were retrieved from PubMed, ScienceDirect, and Google Scholar using the keywords stunting, toddlers, and risk factors. Studies that met predefined inclusion criteria and were available in full text were analyzed. Eight articles were included in the final review.

Results: The analysis identified maternal knowledge, parenting practices, low birth weight, and family economic status as significant risk factors for stunting. Low birth weight showed the strongest association, followed by maternal knowledge and parenting patterns.

Conclusion: Stunting in Indonesian toddlers is predominantly influenced by modifiable maternal and early-life factors. Strengthening maternal education and prenatal care is essential to reduce stunting prevalence.



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INTRODUCTION

Stunting is a problem that continues to occur in many low and middle income countries. Stunting remains a significant public health issue that continues to affect many low- and middle-income countries, posing long-term consequences for children's growth, development, and overall well-being. This condition is influenced by multiple factors, including inadequate maternal nutrition, limited access to healthcare, poor infant feeding practices, and socio-economic disparities. Understanding the underlying causes of stunting is crucial for developing effective interventions and policies to mitigate its impact on future generations. UNICEF/WHO and the World Bank (Unicef/Who/World Bank, 2021) approximately 151 million children worldwide experience stunting, which accounts for 22.2% of the total child population. Stunting cases are more prevalent in low-income (16%) and lower-middle-income countries (47%) compared to upper-middle-income (27%) and high-income countries (10%). The majority of children affected by stunting, around 83.8 million, reside in Asia, particularly in South and Southeast Asia, while

58.7 million live in Africa, and another 5.1 million are in Latin America and the Caribbean. (Unicef/Who/World Bank, 2021).

Indonesia ranks second for the highest stunting prevalence in Southeast Asia. Based on the 2018 Basic Health Research (Riskesdas), the stunting rate in Indonesia decreased from 37.2% to 30.8%. However, this figure still surpasses the WHO threshold of 20% for each country (Kesuma et al., 2022). Stunting is characterized by a child's body length or height being lower than the expected standard for their age, with a length/height-for-age Z-score (LAZ/HAZ) falling below -2 standard deviations based on WHO child growth standards. This condition arises due to prolonged or repeated episodes of malnutrition (Mulyaningsih et al., 2021). Stunting can cause various negative impacts, including impaired cognitive and motor development, disease, obesity and other related diseases, decreased academic achievement and learning ability, decreased productivity, and even death (Komalasari et al., 2020).

Various factors in the community, household, parental, and child levels have been associated with the occurrence of stunting. At the household and parental levels, socioeconomic conditions and dietary patterns have been identified as key contributors to stunting risk (Hafid et al., 2023). Some significant risk factors for stunting in children are the lack of access to clean drinking water in most households and passive smoking. Additionally, family wealth plays a significant role, as children from economically disadvantaged families are more prone to experiencing stunting (Vilcins et al., 2018). At the community level, research has demonstrated that stunting prevalence is higher in areas with limited access to healthcare services. On the other hand, protective factors against stunting include the availability of antenatal care, integrated health services, and nutrition programs, which have been linked to a lower likelihood of stunting (Rusliani et al., 2022). A diverse diet within the household has been shown to significantly reduce the risk of stunting by ensuring that children receive adequate and balanced nutrition. Furthermore, parental education plays a vital role in preventing stunting, as children raised by educated parents tend to have better access to healthcare, proper nutrition, and overall improved living conditions, making them less likely to experience stunting. Parents with higher educational attainment are more likely to adopt appropriate child health and nutrition practices, seek preventive healthcare services, and make informed decisions regarding child feeding, all of which contribute to reducing the risk of stunting (Prasetyo et al., 2023).

This research aims to examine and analyze the various risk factors that contribute to the occurrence of stunting in young children in Indonesia. Research seeks to confirm existing factors reported in previous studies while also exploring potential new contributing factors. By examining various determinants, this study aims to provide evidence-based insights that can support targeted interventions and policy improvements to reduce stunting prevalence.

METHODS

The research method follows a structured literature review approach, consisting of four stages: identification, screening, eligibility assessment, and inclusion of selected articles based on predefined inclusion and exclusion criteria. A thorough search of the literature was carried out utilizing internet resources such as PubMed, Google Scholar and ScienceDirect respectively. Articles were sourced both internationally and nationally using the keywords "Stunting," "Toddlers," and "Causative Risk Factors" within the publication range of 2019–2024.

The article selection process began with identification, where 1,563 articles were retrieved. Screening was then conducted based on inclusion criteria:

1. Studies focusing on risk factors contributing to stunting in toddlers.
2. Published within the last five years (2019–2024).
3. Demonstrating a correlation between independent and dependent variables.
4. Available in full-text format.

Exclusion criteria were applied to remove studies that:

1. Focused on populations other than toddlers.
2. Were not written in English or Indonesian.

3. Lacked clear methodology or statistical analysis.
4. Were review articles, opinion pieces, or conference abstracts.

For quality assessment, selected articles underwent critical appraisal using established tools such as the Newcastle-Ottawa Scale (NOS) for observational studies and the Joanna Briggs Institute (JBI) checklist for qualitative studies to ensure methodological rigor and relevance.

Data extraction was performed systematically, collecting key information such as study design, sample size, location, risk factors analyzed, statistical methods used, and important conclusions. A narrative technique was then used to synthesize the retrieved data, highlighting common trends and discrepancies among the studies.

Eight articles in all satisfied the requirements for inclusion and were added to the final review.

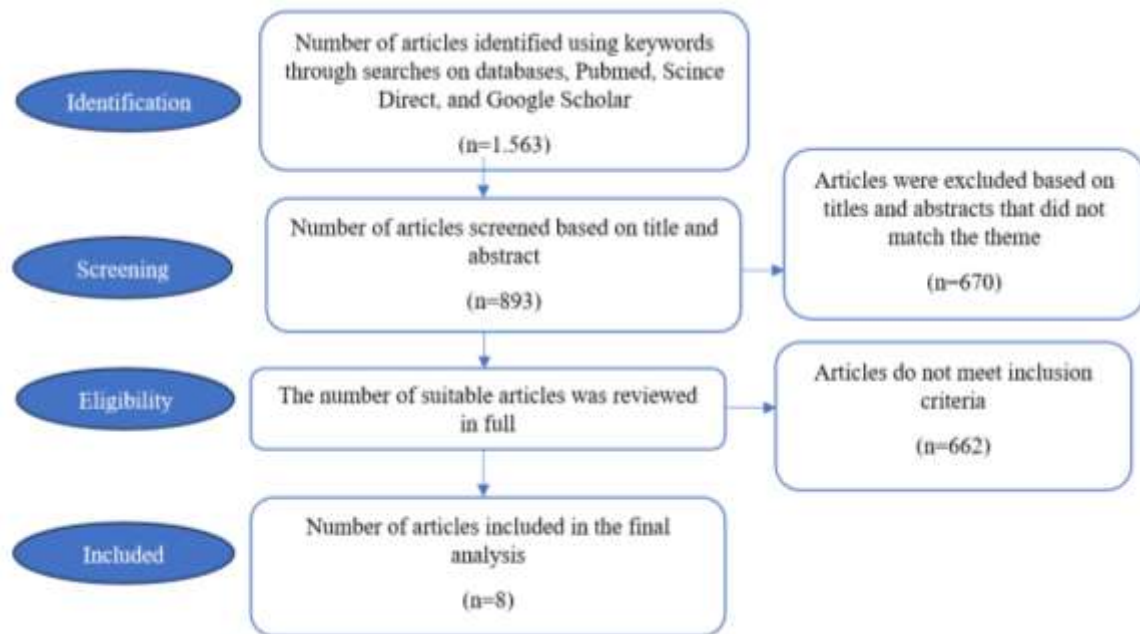


Figure 1. Article Selection Flow Diagram

RESULTS

This study identifies several key factors contributing to stunting in toddlers, including maternal knowledge, parenting style, low birth weight (LBW), and family economic status. To enhance clarity and structure, the analysis results are categorized into three groups based on their relationship with stunting incidence.

1. Maternal Knowledge and Parenting Style

The findings indicate that low maternal knowledge regarding child nutrition and health affects feeding practices, ultimately increasing the risk of stunting. Additionally, improper parenting styles, such as the lack of exclusive breastfeeding and inadequate monitoring of child growth, further contribute to this issue.

2. Low Birth Weight (LBW)

The analysis shows that infants born with a weight of less than 2,500 grams have a higher risk of experiencing growth delays, leading to stunting. This factor is closely related to maternal health during pregnancy, maternal nutritional intake, and access to maternal and child healthcare services.

3. Family Economic Status

Family economic status is also identified as a significant factor in stunting incidence. Families with lower economic status tend to have limited access to nutritious food, healthcare services, and proper sanitation, increasing the likelihood of growth disorders in children.

Table 1. Results of Literature Review articles

Title and Author	Study Design	Participants/Number of Samples	Research result
The relationship between history of birth weight and stunting event in children of 24 - 60 months/ Wijayanti & Nurseskasatmata (2021) (Wijayanti & Nurseskasatmata, 2022)	Cross-sectional	The sample for this research was 62 respondents. By using purposive sampling technique. The study was conducted from February 17–21, 2020, in the Batam Authority RSUD's operating room and surgical polyclinic.	Results of research conducted with Chi-Square Testing the history of LBW and the incidence of stunting obtained p-value = 0.000<0.05.
The relationship between low birth weight (LBW) and the incidence of stunting in toddlers aged 2-5 years in Umbulrejo Village, Ponjong District, Gunung Kidul/Murti Regency, Suryati and Oktavianto (2020) (Murti et al., 2020)	Case Control	The sample for this research was toddlers aged 2-5 years, four in Umbulrejo Village, Ponjong, Gunungkidul.	The study results showed that 27 toddlers (42.2%) had a history of low birth weight (LBW), and all 32 toddlers in the study sample were identified as experiencing stunting. However, this finding is specific to the study sample and does not indicate that all LBW infants or all toddlers in Umbulrejo Village experience stunting. The results of the Chi-Square test revealed an odds ratio (OR) of 0.056 and a p-value < 0.000, suggesting a there is a substantial correlation between LBW and the prevalence of stunting in Umbulrejo Village among children ages 2 to 5.
Study of the Relationship Between Parenting Patterns and Family Income With Stunting Incidence in Children Aged 2-5 Years/ Kaloko et al (2022) (Kaloko et al., 2022)	Cross-Sectional	Sample: toddler ages 12-59 months place: Work area Cempaka Banjarbaru Community Health Middle in 2018.	The study involved a total of 88 participants, selected using the Accidental Sampling method. Findings indicated that 55.7% of respondents with inadequate parenting styles had children classified as short or very short. Additionally, a significant relationship was observed between maternal parenting practices and the occurrence of stunting in children aged 12–59 months, with a p-value of 0.01.
Factors Associated with Stunting Incidents in Toddlers/ Anita et al (2023) (Anita et al., 2023)	Cross Sectional	The research sample was 105 toddlers 12-36 month Place: Ulaweng Bone Regency Health Center.	A significant association exists between exclusive breastfeeding and stunting, as indicated by a p-value of <0.05. Similarly, there is a correlation between low birth weight (LBW) and stunting, with the p-value also being <0.05.
The economic status of parents and family food security as a risk factor for stunting in children under five years old in Bejiharjo Village/ Raharja, Waryana	Case Control	The research sample was toddlers aged 24-59 months in Bejiharjo Village.	The results of the bivariate analysis showed that family food security and parental economic status were related (p=0.002; OR=3.182), are important risk factors for stunting in children under five in Bejiharjo

Title and Author	Study Design	Participants/Number of Samples	Research result
and Sitasari (2019) (Raharja et al., 2019)			Village (p=0.007; OR=3.164).
The relationship between parenting styles and the incidence of stunting in toddlers from poor families in Palembang City/ Bella, Fajar, and Misnaniarti (2019) (Bella et al., 2020)	Cross-Sectional	One hundred moms from low-income families in Palembang City with toddlers ages 24 to 59 months made up the sample.	The study findings indicate that the prevalence of stunting among children under five in low-income families in Palembang is 29%. Additionally, there is a significant association between stunting and various factors, including feeding habits (p-value = 0.000), parenting practices (p-value = 0.001), hygiene (p-value = 0.021), and access to healthcare services (p-value = 0.000).
The Relationship between Exclusive Breastfeeding and Stunting in Toddlers Aged 24-36 Months (Case Study at Tampang Tumbang Anjir Community Health Center, Gunung Mas Regency, Central Kalimantan Province) Mawaddah (2019) (Mawaddah, 2019)	Case Control	The research sample was 78 toddlers 24-36 month old Location: Tampang Tumpang Anjir Health Center, Gunung Mas Regency, Central Kalimantan.	Statistical test results indicate a p-value of <0.000 with a mark of 29.558, demonstrating a significant relationship between stunting and the age range of 24–36 months. Additionally, the analysis reveals a significant association between exclusive breastfeeding and the incidence of stunting among toddlers at the Tampang Fallen Anjir Health Center in Mountain Sir Regional, Central Kalimantan Province.
Relationship between LBW and Nutritional Parenting with Stunting Incidence in Tabumela Village, Gorontalo Regency Rosalina et al (2023) (Rosalina et al., 2023)	Cross Sectional	The research sample was 30 stunted toddlers and the respondents were toddler mothers, Place Tabumela Village.	The findings of this study indicate that the chi-square test results showed a P-value of 0.009 for the low birth weight (LBW) factor and 0.000 for the nutritional parenting factor, both of which are less than the significance level of 0.05. These results suggest a significant relationship between these factors and the occurrence of stunting. Therefore, this study is expected to serve as a valuable reference for developing effective strategies and interventions to prevent stunting in children, particularly by addressing nutritional parenting practices and low birth weight issues.

DISCUSSION

A total of eight articles were examined using a matrix table (Table 1) to identify the variables analyzed in each study and their association with stunting. This literature review primarily focuses on maternal knowledge, parenting styles, low birth weight, and family economic status (Kaloko et al., 2022) found that children with stunting were very short with low economic status (69.4%). Meanwhile, among children classified as stunted, it was observed that approximately 30.6% had poor parental parenting patterns. Statistical analysis revealed a p-value of 0.01, indicating a significant relationship between maternal parenting styles and stunting incidence. This suggests that a good maternal parenting style is associated with a lower prevalence of stunting, whereas poor parenting practices are linked to a higher incidence of

stunting. Parenting is defined as the practice of ensuring the availability of food, medical care, and other resources in the household for the survival, growth, and development of children (Yanti et al., 2020). This research also revealed that most mothers had only completed primary school education, which may contribute to limited knowledge about proper nutrition, childcare, and overall health practices, potentially increasing the risk of stunting in children. Lower maternal education is associated with limited nutritional knowledge and poorer health practices, which can contribute to a higher risk of stunting in children. The family's role, particularly that of the mother, in nurturing and caring for children significantly influences their growth and development. Maternal parenting refers to a mother's behavior in providing care and support for her child (Hulu et al., 2022). Maternal behavior includes the role of providing breast milk or complementary foods, teaching proper eating habits, offering nutritionally rich meals, regulating portion sizes, ensuring food hygiene, and establishing appropriate eating patterns. These factors contribute to adequate nutritional intake and optimal absorption by the child (Susanti et al., 2023). However, an essential aspect that must also be considered is the diversity of the diet that should be implemented. A well-balanced and varied diet plays a crucial role in ensuring optimal growth and development in children. Providing a wide range of nutritious and healthy foods helps meet their nutritional needs, strengthens their immune system, and reduces the risk of stunting and other health issues. The ability to regulate portion sizes, prepare hygienic meals, and establish proper eating patterns ensures that children receive adequate nutritional intake, which is effectively managed by parents (Rosalina et al., 2023).

Meanwhile, research conducted by (Bella et al., 2020) A study was also conducted in which the majority of respondents were mothers over the age of 35, totaling 56 participants. Most of these mothers had an education level below high school (65 respondents) and were primarily housewives, spending more time at home (73%). The findings revealed that among all respondents, 64.7% of mothers with poor parenting habits had toddlers experiencing stunting. In contrast, only 21.7% of mothers with good parenting practices had children affected by stunting. Results of research conducted by (Rosalina et al., 2023) Among the 30 respondents, 5 toddlers (16.7%) with a history of low birth weight (LBW) had short stature, while 6 toddlers (20%) without LBW also experienced short stature. Additionally, 17 toddlers (56.7%) with a history of LBW had very short stature, whereas only 2 toddlers (6.6%) without LBW had very short stature. These findings suggest that nutritional status plays a crucial role in toddler growth and development. Toddlers with poor nutritional status are at a higher risk of experiencing stunting compared to those with normal nutritional status (Ernidayati et al., 2022).

Research conducted by (Wijayanti & Nurseskasatmata, 2022) conducted research in September on 62 respondents, from the results From the research, data was obtained on the relationship between LBW history and incidence of stunting among toddlers in the district Work Wide Sekupang Batam City Health Center in 2019. Based on That result of research in the Sekupang Community Health Center Work Area in 2019. This shows that there were 62 toddlers, the majority of whom were LBW, 25 people (40.3%), 40 toddlers with stunting (64.5%). Research conducted by (Anita et al., 2023) Research findings indicate a significant relationship between low birth weight (LBW) and the incidence of stunting in children aged 6-24 months. Children with a history of LBW are 5.6 times more likely to experience stunting compared to those born with normal weight. LBW is recognized as one of the primary direct causes of stunting, as inadequate fetal growth can lead to long-term nutritional deficiencies and developmental delays. LBW is defined as a birth weight of less than 2500 grams, regardless of gestational age or the duration of pregnancy. Given its strong association with stunting, efforts to reduce LBW rates through improved maternal nutrition, prenatal care, and health interventions are crucial in preventing stunting in early childhood (Sholihah, 2023).

Similar research was also carried out by (Murti et al., 2020) The research findings indicate that the majority of toddlers who experienced low birth weight (LBW) also suffered from stunting, with a total of 23 children (71.9%). This suggests a strong correlation between LBW and stunting, highlighting the critical need for early nutritional and medical interventions to address this issue. Meanwhile, a smaller proportion of toddlers with a history of LBW did not experience stunting, accounting for only 4 children (12.5%), which may indicate that other protective factors, such as

adequate postnatal nutrition and proper healthcare, played a role in preventing stunting in this group. On the other hand, 9 toddlers (28.1%) who did not have LBW were still affected by stunting, suggesting that factors beyond birth weight, such as inadequate dietary intake, poor sanitation, and lack of parental knowledge about nutrition, also contribute to stunting. Whereas the largest group, consisting of 28 toddlers (87.5%), neither had LBW nor experienced stunting, indicating that a combination of proper prenatal care, sufficient maternal nutrition, and a supportive postnatal environment may help prevent both LBW and stunting in children. LBW children with inadequate nutritional intake, poor health services, and frequent infections during growth will continue to lag behind in growth so that children experience stunting (Trisiswati et al., 2021).

The results of research conducted by (Bella et al., 2020) demonstrate that 29% of stunting cases in children under five years old occur in low-income homes in Palembang. Research conducted by (Raharja et al., 2019) A related study found that among toddlers in the working area of Karangmojo II Community Health Center, Gunungkidul Regency, family economic status is a significant risk factor for stunting. It was discovered that toddlers from low-income families were 3.182 times more likely to suffer from stunting than toddlers from higher-income families. This result supports the hypothesis that parents with more educational attainment. This finding aligns with the theory that parents with higher education levels tend to prioritize preventive measures, possess greater awareness of health issues, and generally maintain better overall health status (Pertiwi et al., 2021). Facts show that stunting occurs more often in children from families with low socioeconomic levels, which has implications for future economic sustainability and poor health. Families with lower economic status have lower purchasing power for foods that contain good quality nutrition and are at risk of experiencing macro and micro nutrient deficiencies (Sukmawati et al., 2023). Malnutrition in pregnant women and young children significantly raises the risk of stunting in children (Yuningsih, 2022).

CONCLUSIONS

Numerous factors, including as inadequate parenting and a lack of mother education, can contribute to stunting in children under five. low birth weight (LBW), poor family economic standing, and habits. Addressing this issue requires a collaborative effort involving parents, healthcare professionals, and government agencies. Among these factors, maternal knowledge, parenting practices, and nutritional status can be modified, while LBW is a preventable risk factor.

To effectively reduce stunting rates, targeted intervention programs should focus on improving maternal education, ensuring adequate maternal nutrition during pregnancy, and enhancing routine antenatal care to prevent LBW. Additionally, promoting better childcare practices such as proper food preparation, feeding techniques, personal and environmental hygiene, and optimal utilization of healthcare services should be prioritized. Strengthening multi-sectoral collaboration between healthcare providers, policymakers, and community organizations is essential to ensure the successful implementation of these programs. Future research should explore the long-term impact of these interventions and assess potential barriers to their adoption within different socioeconomic contexts. By addressing these gaps, a more comprehensive and sustainable strategy to combat stunting can be developed.

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REFERENCES

- Anita, S., Novita, N., & Vasra, E. (2023). Factors Associated with Stunting Incidents in Toddlers. *Journal of Maternal and Child Health Sciences (JMCHS)*, 3(1), 287–294. <https://doi.org/10.36086/maternalandchild.v3i1.1671>
- Bella, F. D., Fajar, N. A., & Misnaniarti, M. (2020). Hubungan pola asuh dengan kejadian stunting balita dari keluarga miskin di Kota Palembang. *Jurnal Gizi Indonesia*, 8(1), 31. <https://doi.org/10.14710/jgi.8.1.31-39>
- Ernidayati, E., Irianto, S. E., Noviansyah, N., Budiati, E., & Karyus, A. (2022). Faktor-Faktor yang Berhubungan dengan Kejadian Stunting di Wilayah Kerja Dinas Kesehatan Kabupaten Lampung Selatan. *Poltekita: Jurnal Ilmu Kesehatan*, 16(3), 376–383. <https://doi.org/10.33860/jik.v16i3.1385>
- Hafid, F., Nasrul, N., Adhyanti, A., & Bohari, B. (2023). Social and Health Determinants of the Families of Children Under Two Years of Age with Stunting in Sigi District. *Poltekita: Jurnal Ilmu Kesehatan*, 17(1), 137–146. <https://doi.org/10.33860/jik.v17i1.2252>
- Hulu, M. S., Setyowati, D. L., & Noviasy, R. (2022). Analisis Status Gizi dengan Pola Asuh Ibu, Ketahanan Pangan dan Asupan Gizi Di Pusat Pengembangan Anak (PPA) Samarinda. *Poltekita: Jurnal Ilmu Kesehatan*, 16(2), 144–151. <https://doi.org/10.33860/jik.v16i2.1187>
- Kaloko, I., Marniati, M., & Mulyani, I. (2022). Study of the Relationship Between Parenting Patterns and Family Income With Stunting Incidence in Children Aged 2-5 Years. *Morfai Journal*, 2(1), 181–188. <https://doi.org/10.54443/morfai.v2i1.216>
- Kesuma, Z. M., Siregar, L. R., Fradinata, E., & Fathinah, A. (2022). Factors Affecting Stunting in Children under 5 Years of Age in Indonesia using Spatial Model. *Indian Journal of Public Health*, 66(3), 264–268. https://doi.org/10.4103/ijph.ijph_1989_21
- Komalasari, K., Supriati, E., Sanjaya, R., & Ifayanti, H. (2020). Faktor-Faktor Penyebab Kejadian Stunting Pada Balita. *Majalah Kesehatan Indonesia*, 1(2), 51–56. <https://doi.org/10.47679/makein.202010>
- Mawaddah, S. (2019). Hubungan Pemberian ASI Eksklusif dengan Kejadian Stunting pada Balita Usia 24-36 Bulan (Studi Kasus di Puskesmas Tampang Tumbang Anjir Kabupaten Gunung Mas Provinsi Kalimantan Tengah). *Jurnal Berkala Kesehatan*, 5(2), 60–66.
- Mulyaningsih, T., Mohanty, I., Widyaningsih, V., Gebremedhin, T. A., Miranti, R., & Wiyono, V. H. (2021). Beyond personal factors: Multilevel determinants of childhood stunting in Indonesia. *PLoS ONE*, 16(11 November), 1–19. <https://doi.org/10.1371/journal.pone.0260265>
- Murti, F. C., Suryati, S., & Oktavianto, E. (2020). Hubungan Berat Badan Lahir Rendah (Bblr) Dengan Kejadian Stunting Pada Balita Usia 2-5 Tahun Di Desa Umbulrejo Kecamatan Ponjong Kabupaten Gunung Kidul. *Jurnal Ilmiah Kesehatan Keperawatan*, 16(2), 52. <https://doi.org/10.26753/jikk.v16i2.419>
- Pertiwi, F. D., Prastia, T. N., & Nasution, A. (2021). Hubungan Faktor Sosial Ekonomi dan Riwayat Pemberian ASI Eksklusif dengan Kejadian Stunting pada Balita. *Jurnal Ilmu Kesehatan Masyarakat*, 10(04), 208–216. <https://doi.org/10.33221/jikm.v10i04.801>
- Prasetyo, Y. B., Permatasari, P., & Susanti, H. D. (2023). *The effect of mothers' nutritional education and knowledge on children's nutritional status: A systematic review*. *International Journal of Child Care and Education Policy*, 17, 11. <https://doi.org/10.1186/s40723-023-00114-7>
- Raharja, U. M. P., Waryana, W., & Sitasari, A. (2019). The economic status of parents and family food security as a risk factor for stunting in children under five years old in Bejiharjo Village. *Ilmu Gizi Indonesia*, 3(1), 73. <https://doi.org/10.35842/ilgi.v3i1.130>
- Rosalina, L., Yustanta, B. F., Wardani, N. W., Mahendika, D., Sari, P. I. A., & Djafar, T. (2023). Relationship Between Parenting and Nutrition-Aware Family Behavior with The Incidence of Stunting in Toddlers at Klaten Regency Central Java Province. *Jurnal Penelitian Pendidikan IPA*, 9(8), 6213–6218. <https://doi.org/10.29303/jppipa.v9i8.4194>
- Rusliani, N., Hidayani, W. R., & Sulistyoningih, H. (2022). Literature Review: Faktor-Faktor yang Berhubungan dengan Kejadian Stunting pada Balita. *Buletin Ilmu Kebidanan Dan Keperawatan*, 1(01), 32–40. <https://doi.org/10.56741/bikk.v1i01.39>

- Sholihah, S. C. (2023). Hubungan Berat Badan Lahir Rendah (Bblr) Terhadap Kejadian Stunting Di Wilayah Kerja Puskesmas Dradah. *Prepotif: Jurnal Kesehatan Masyarakat*, 7(1), 135–140. <https://doi.org/10.31004/prepotif.v7i1.10859>
- Sukmawati, S., Adam, A., Sirajuddin, S., Nadimin, N., & Sanas, N. T. (2023). Risk Factors for Stunting in Toddlers in Gowa Regency. *Poltekita: Jurnal Ilmu Kesehatan*, 17(1), 89–94. <https://doi.org/10.33860/jik.v17i1.2153>
- Susanti, D., Doni, A. W., Yuda, R. A., & Yanti, M. (2023). *Determining the Role of Exclusive Breastfeeding and Nutritional Status in Stunting Prevention : A Literature Review Kemenkes Padang , Padang City , West Sumatra , Indonesia Mohammad Husni Thamrin , Jakarta , Indonesia 3 Sekolah Tinggi Ilmu Kesehatan Alifa*. 17(3), 1014–1025. <https://doi.org/10.33860/jik.v17i3.2805>
- Susilawati, S. O. B. G. (2023). IJOH: Indonesian Journal of Public Health. *IJOH: Indonesian Journal of Public Health*, 01(02), 1–6.
- Trisiswati, M., Mardhiyah, D., & Maulidya Sari, S. (2021). Hubungan Riwayat Bblr (Berat Badan Lahir Rendah) Dengan Kejadian Stunting Di Kabupaten Pandeglang. *Majalah Sainstekes*, 8(2), 061–070. <https://doi.org/10.33476/ms.v8i2.2096>
- Unicef/Who/World Bank. (2021). Levels and trends in child malnutrition UNICEF / WHO / World Bank Group Joint Child Malnutrition Estimates Key findings of the 2021 edition. *World Health Organization*, 1–32. <https://www.who.int/publications/i/item/9789240025257>
- Vilcins, D., Sly, P. D., & Jagals, P. (2018). Environmental risk factors associated with child stunting: A systematic review of the literature. *Annals of Global Health*, 84(4), 551–562. <https://doi.org/10.29024/aogh.2361>
- Wijayanti, L. A., & Nurseskasatmata, S. E. (2022). Relationship Between History of Birth Weight and Stunting Event in Children of 24 - 60 Months. *International Journal of Health Sciences*, 6(July), 9732–9741. <https://doi.org/10.53730/ijhs.v6ns6.12540>
- Yanti, N. D., Betriana, F., & Kartika, I. R. (2020). Faktor Penyebab Stunting Pada Anak: Tinjauan Literatur. *REAL in Nursing Journal*, 3(1), 1. <https://doi.org/10.32883/rnj.v3i1.447>
- Yuningsih, Y. (2022). Hubungan Status Gizi dengan Stunting pada Balita. *Oksitosin : Jurnal Ilmiah Kebidanan*, 9(2), 102–109. <https://doi.org/10.35316/oksitosin.v9i2.1845>