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The role of parental knowledge and iodized salt utilization in the incidence of stunting

Peran Pengetahuan Orang Tua dan Penggunaan Garam Beriodium dalam Kejadian Stunting

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ABSTRACT

Background: *Stunting is a condition of growth failure in toddlers due to chronic malnutrition and repeated infections, characterized by a child's height being below -2 standard deviations. The impact of stunting is not only visible in the child's physical appearance, but also in brain development and cognitive abilities. One cause that is often not recognized but has a major influence on child growth is iodine deficiency. This problem can actually be prevented by using iodized salt in daily food.*

Objective: *This article aimed to explain the role of parental knowledge and the use of iodized salt on the incidence of stunting in children.*

Methods: *This study used a quantitative correlation research method with a cross-sectional approach, sampling 63 of 181 infants and toddlers. The study location was in Sidorejo Village, Bandongan, Magelang. This questionnaire contained the characteristics of respondents consisting of name, age, gender, and results of measurements of height, weight, and height of children, as well as questions about iodine use. Data analysis used Chi-Square (X2) and Lambda Test.*

Results: *The results showed a significant relationship between parental knowledge and stunting (ρ = 0.005; r = 0.549), and a significant relationship between the use of iodized salt and stunting, with a Prevalence Odds Ratio (POR) of 18.27.*

Conclusion: *This means that parents who do not use iodized salt have a greater chance of having stunted children than mothers who do.*

Keywords: *Iodine, knowledge, stunting*

ABSTRAK

Latar belakang: Stunting merupakan kondisi gagal tumbuh pada anak balita akibat kekurangan gizi kronis dan infeksi berulang, yang ditandai dengan tinggi badan anak berada di bawah -2 standar deviasi. Dampak stunting tidak hanya terlihat pada fisik anak, tetapi juga pada perkembangan otak dan kemampuan kognitifnya. Salah satu penyebab yang sering tidak disadari tetapi memiliki pengaruh besar pada pertumbuhan anak adalah kekurangan iodium. Masalah ini sebenarnya dapat dicegah dengan menggunakan garam beriodium dalam makanan sehari-hari.

Tujuan: Penelitian ini bertujuan untuk menjelaskan peran pengetahuan orang tua dan penggunaan garam beriodium terhadap kejadian stunting pada anak.

Metode: Penelitian ini menggunakan metode penelitian kuantitatif korelasi dengan pendekatan *cross sectional,* sampel yang diambil 63 dari 181 bayi dan balita. Lokasi penelitian berada di Desa Sidorejo, Bandongan, Magelang. Kuisioner ini berisikan mengenai karateristik responden yang terdiri dari nama, usia, jenis kelamin serta hasil pengukuran TB, BB, LK dan pertanyaan tentang penggunaan yodium. Analisa data menggunakan *Chi-Square (X^2)* dan Uji Lambda.

Hasil: Hasilnya terdapat hubungan yang signifikan antara pengetahuan orang tua dengan kejadian stunting (ρ = 0,005; r = 0,549), dan terdapat hubungan yang signifikan

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antara penggunaan garam beriodium dengan kejadian stunting dengan nilai *Prevalence Odds Ratio* (POR) = 18,27 yang berarti, orang tua yang tidak menggunakan garam beriodium memiliki peluang lebih besar memiliki anak stunting dibandingkan ibu yang menggunakan garam beriodium.

Kata kunci: Iodium, pengetahuan, stunting

INTRODUCTION

Stunting is a chronic nutritional problem that remains a serious concern in Indonesia, with growth failure in toddlers due to long-term malnutrition, especially during the first 1,000 days of life, from when the fetus is in the womb until the child is 2 years old.[1]According to the Ministry of Health of the Republic of Indonesia, stunting is characterized by a child's height being lower than the standard for their age due to long-term malnutrition based on the WHO growth curve (z-score height for age <-2 SD).[2]

The causes of stunting are multifactorial, interconnected, and can be categorized as direct and indirect. Direct causes include inadequate nutritional intake and recurrent infectious diseases. Nutrient deficiencies, such as protein, iron, zinc, and iodine, can hinder a child's growth and development. Iodine deficiency, in particular, can lead to thyroid dysfunction, which impacts brain growth and development. Furthermore, recurrent infections such as diarrhea, upper respiratory infections, and worm infestations can worsen a child's nutritional status by reducing appetite and interfering with nutrient absorption.[3]Indirect causes include various social and environmental factors, such as poor parenting practices, low maternal knowledge about nutrition and health, poor environmental sanitation, limited access to nutritious food, and suboptimal health services.[4,5]

Based on the results of the Indonesian Nutritional Status Survey (SSGI), the national stunting prevalence in Indonesia in 2024 was recorded at 19.8%. Data reported by the Central Java Provincial Health Office in 2023 stated the figure was 20.7%. Meanwhile, in Magelang Regency in 2023, the stunting prevalence was recorded at 22.8%. This condition remains a serious problem because it is still above the national average (19.8%).[6]

The impact of stunting can have long-term effects on health, intelligence, productivity, and community well-being. If not addressed promptly, stunting will persist from childhood to adulthood, and can even create an intergenerational cycle of poverty and malnutrition. Physically, children who experience stunting tend to have weak immune systems and are more susceptible to infectious diseases such as diarrhea, upper respiratory infections, and skin disorders. Long-term nutritional deficiencies can hinder the development of body organs and the metabolic system. Individuals who have experienced stunting are at higher risk of developing non-communicable diseases such as obesity, hypertension, diabetes mellitus, and coronary heart disease. This condition occurs due to permanent changes in the metabolic system caused by malnutrition during growth.[7]

One contributing factor to stunting is iodine deficiency, which can disrupt thyroid function and affect a child's brain growth and development. Iodine is an essential micronutrient that plays a role in thyroid hormone synthesis, and its deficiency can lead to stunted growth, low intelligence, and even cretinism in severe cases. Deficiencies in essential nutrients such as protein, iron, and iodine can disrupt the formation of brain cells and nerve connections, leading to children having poorer thinking, concentration, and memory skills than their peers with normal development. As a result, school performance declines and opportunities for higher education are limited.[8]

Iodized salt is the primary source of iodine in the daily diet. Using non-iodized salt or improperly storing and processing it can lead to iodine loss, increasing the risk of iodine

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deficiency and contributing to stunting. To prevent iodine deficiency, the Indonesian government has long promoted the use of iodized salt as a simple, inexpensive, and effective food fortification strategy. However, the effectiveness of this program depends heavily on public knowledge and behavior in selecting and using iodized salt. Many people are unaware of the importance of iodized salt, its proper storage methods, or its use to prevent iodine loss during cooking.[9]

Public knowledge about iodized salt includes understanding the health benefits of iodine, how to recognize iodized salt, and how to store and use it to ensure its iodine content is not reduced. Good knowledge will encourage positive behavior in selecting salt that meets standards and using it appropriately. Conversely, low knowledge often leads people to ignore the iodine content in the salt they consume, or to use salt incorrectly, such as adding salt while food is still being cooked at high temperatures, which can evaporate and lose the iodine content.[10]

Several studies have shown that low levels of knowledge about iodized salt correlate with low household use of iodized salt, which can ultimately increase the risk of iodine deficiency disorders (IDD) and potentially contribute to stunting. Research by Wulandari & Sutiari[11], it was found that 29.7% of housewives had not used iodized salt, and the level of knowledge of housewives regarding iodized salt in the Tampaksiring I Health Center Working Area was in the insufficient category of 40.5%.

Other supporting research from Nurlenika & Muhartati, stated that families who do not use iodized salt have a higher incidence of stunting than families who use iodized salt daily.[9] Research that does not support this is research by Rusdi & Maryona, which states that most mothers of normal toddlers (87.7%) consume iodized salt, while only 12.3% consume iodized salt among mothers of stunted toddlers. Analysis shows no significant relationship ($p > 0.05$).[12]

A preliminary study found that Sidorejo Village, Bandongan District, Magelang Regency, is one of the rural areas where stunting cases in toddlers are still found. According to data from health cadres in Sidorejo Village, 10 out of 181 children (5.52%) are stunted. This condition is suspected to be related to nutritional factors, including low knowledge and use of iodized salt at the household level.

Based on initial observations and brief interviews with 7 residents of Sidorejo Village, Bandongan District, Magelang Regency, it was discovered that the 7 residents were familiar with iodized salt, but not all of them understood the importance of using it to prevent nutritional problems, including stunting. Based on information from cadres, it was found that some residents still buy salt without paying attention to the label or iodine content, due to considerations of lower prices or inherited habits. In addition, many residents still do not know how to store salt properly. For example, salt is stored in open containers or placed in damp places, so that the iodine easily evaporates and decreases.

Lack of outreach and education from health workers or integrated health post (Posyandu) cadres also contributes to the community's low level of knowledge. This leads to the continued use of non-iodized salt by some households, which in the long term can increase the risk of impaired growth and development in children. A better understanding of the importance of iodized salt and its proper use is expected to help reduce the risk of iodine deficiency and contribute to stunting prevention in the region.

Therefore, it is important to research the relationship between knowledge and use of iodized salt and stunting rates in Sidorejo Village, Bandongan District, Magelang Regency. This scientific article is expected to provide insight into the extent to which knowledge and practice of iodized salt use affect children's nutritional status and serve as a basis for nutritional interventions and community education to reduce stunting rates in the region.

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METHODS

Study Design

This study employed a quantitative correlational research design with a cross-sectional approach.[13] The study was conducted from September to November 2025 in Sidorejo Village, Bandongan District, Magelang Regency, Indonesia. The study setting was a community-based environment involving mothers with toddlers aged 6–59 months.

Data Source and Sampling Procedure

The data used in this study were primary data obtained directly from respondents through questionnaires and anthropometric measurements. The study population consisted of 181 mothers with toddlers aged 6–59 months in Sidorejo Village, Bandongan District, Magelang Regency. The inclusion criteria were mothers who had children aged 6–59 months, were domiciled in the Sidorejo area, were able to communicate verbally, and were willing to participate as respondents. The exclusion criteria were respondents who were absent during data collection or did not complete the questionnaire. The sampling technique used was purposive sampling.[14] Based on the Nursalam formula calculation, the total sample included in this study was 63 respondents.[15]

Variables of the Study

The independent variables in this study were parental knowledge and the use of iodized salt. The dependent variable was the incidence of stunting among toddlers aged 6–59 months. Parental knowledge referred to respondents' understanding regarding nutrition and iodized salt utilization, while iodized salt utilization referred to the use of iodized salt in daily household consumption. Stunting was defined based on the height-for-age Z-score according to the Indonesian Ministry of Health anthropometric standards.

Measurement and Instruments

Data were collected using a structured questionnaire containing respondent characteristics, including age, gender, and educational background, as well as questions regarding parental knowledge and the use of iodized salt. Anthropometric measurements included body height, body weight, and mid-upper arm circumference to determine the nutritional status and Z-score of toddlers based on the Child Anthropometric Standards issued by the Indonesian Ministry of Health.[16] The questionnaire instrument had been tested for validity with r-count values > 0.369 and reliability with a Cronbach's alpha value of 0.744.

Data Collection

Data collection was conducted from September to November 2025 by the researchers with the assistance of community health cadres. Respondents who met the inclusion criteria were approached and informed about the purpose of the study. After obtaining informed consent, respondents were asked to complete the questionnaire regarding parental knowledge and iodized salt utilization. Anthropometric measurements of toddlers were then conducted using standardized measurement tools to assess stunting status. All collected data were checked for completeness before analysis.

Ethical Considerations

This study received ethical approval from the Health Research Ethics Commission of Karya Bhakti Nusantara Magelang Health Sciences College with ethical clearance number No. 010.A/Stikes-KBN/KEPK/X/2025. Written informed consent was obtained from all respondents before participation in the study. Participant confidentiality and anonymity were maintained throughout the research process.

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Data Analysis

Data analysis was performed using statistical software. Descriptive statistics were used to describe respondent characteristics and study variables. The Chi-Square (X^2) test was used to analyze the relationship between the use of iodized salt and the incidence of stunting, while the Lambda test was used to analyze the relationship between parental knowledge and stunting incidence.[17] Statistical significance was determined at a p-value < 0.05.

RESULTS

Sidorejo Village is administratively registered as one of 14 villages under the Bandongan District, Magelang Regency, Central Java. Sidorejo Village is one of the villages that received a large Total of village funds to accelerate its development. The population of Sidorejo Village in October 2025 was recorded at 3,299 people, consisting of 545 PUS people, 181 infants, and toddlers. The land types of Sidorejo Village are 191 ha of rice fields, 78.5 ha of dry land, 0.47 ha of wet land, 33 ha of plantation land, and 41.0535 ha of public facility land with a total area of 343.5530 ha.

Based on the results of research on the relationship between parental knowledge and the use of iodized salt with the incidence of stunting in Sidorejo Village, Bandongan District, Magelang Regency, the following general data were obtained from respondents:

Table 1. Frequency Distribution of Parental Characteristics in Sidorejo Village in 2025 (n: 63)

Respondent Characteristics	Frequency (n)	Percentage (%)
Gender		
Male	3	4.8
Female	60	95.2
Total	63	100
Age		
Young Adults	57	90.5
Older Adults	6	9.5
Total	63	100
Education		
Elementary School	0	0
Junior High School	3	4.8
Senior High School	54	85.7
College	6	9.5
Total	63	100

Based on Table 1, the research results show that the majority of respondents were female (95.2%), in terms of age, respondents were dominated by the adult group (92.1%), and in terms of education, the majority of respondents had a high school education (85.7%).

Table 2. Frequency Distribution of Parental Characteristics in Sidorejo Village in 2025

Variables	n	%
Knowledge		
Not enough	12	19.0
Enough	23	36.5
Good	28	44.4
Total	63	100
Use of Iodized Salt		
Non-Iodized	13	20.6
Iodized	50	79.4
Total	63	100

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Based on Table 2, the description of the mother's knowledge category is mostly in the good category with 28 respondents (44.4%), in the sufficient category with 23 respondents (36.5%), and in the insufficient category with 12 respondents (19.0%). The description of the use of iodized salt is mostly in the iodized category with 50 respondents (79.4%), and in the non-iodized category with 13 respondents (20.6%).

Table 3. Frequency Distribution of Characteristics of Toddlers in Sidorejo Village in 2025

Respondent Characteristics	Frequency (n)	Percentage (%)
Gender		
Man	26	41.3
Woman	37	58.7
Total	63	100
Age		
2 years	4	6.3
3 years	15	23.8
4 years	16	25.4
5 years	28	44.4
Total	63	100
Stunting Incident		
Stunting	10	15.9
No stunting	53	84.1
Total	63	100

Based on Table 3, the results of the study show that of the 63 participants, it can be seen that almost all of the children were female (37 respondents) (58.7%), and the age category was dominated by the 5-year-old age category (28 respondents) (44.4%). The majority of stunting cases were in the non-stunting category (53 respondents) (84.1%), and in the stunting category (10 respondents) (15.9%).

Table 4. Cross-Tabulation of the Relationship Between Parental Knowledge and Stunting Incidence in Sidorejo Village, 2025 (n = 63)

Parental Knowledge	Stunting Incident						*p-value*
	Stunting		No Stunting		Total		
	n	%	n	%	n	%	
Not enough	7	58.3	5	41.7	12	100	0.005
Enough	3	13.0	20	87.0	23	100	
Good	0	0	28	100	28	100	
Total	10	15.9	53	84.1	63	100	

From the results of Table 4, it is known that parents who have insufficient knowledge, numbering 12 respondents, indicate that more than half of them, numbering 7 respondents (58.3%), have children who are stunted. Meanwhile, parents who have good knowledge, numbering 28 respondents, indicate that all 28 respondents (100%) have children who are not stunted. Statistical tests using Lambda found that there is a significant relationship between parental knowledge and the incidence of stunting, with a value of ρ = 0.005.

Table 5. Cross Tabulation of the Relationships between the Use of Iodized Salt and the Incidence of Stunting in Sidorejo Village in 2025 (n: 63)

Use of Iodized Salt	Stunting Incident						*POR*	*p-value*
	Stunting		No Stunting		Total			
	N	%	N	%	N	%		
Non-Iodized	7	53.8	6	46.2	13	100	18.27	0,000
Iodized	3	6.0	47	94.0	50	100		
Total	10	15.9	53	84.1	63	100		

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From table 5, it can be seen that parents who do not use iodized salt, numbering 13 respondents, showed that more than half of them, numbering 7 respondents (58.3%), had stunted children. Meanwhile, parents who use iodized salt, numbering 50 respondents, showed that almost all of them, numbering 47 respondents (94.0%), had children who were not stunted. Statistical tests using Chi-Square found that there was a significant relationship between the use of iodized salt and the incidence of stunting, with a value of ρ = 0.000, and the value of the Prevalence Odds Ratio (POR) = 18.27. The conclusion is that parents who do not use iodized salt have an 18.27 times greater chance (odds) of having stunted children than parents who use iodized salt.

DISCUSSION

The analysis of the relationship between knowledge and stunting incidence revealed that 12 mothers had insufficient knowledge, with more than half (7 respondents, 58.3%) having stunted children. The study found a significant relationship between parental knowledge and stunting incidence (ρ = 0.005). These findings indicate that the better parents' knowledge, especially mothers', about nutrition and parenting, the lower the risk of stunting in children. Conversely, insufficient knowledge can lead to errors in feeding, food selection, and a lack of attention to the intake of essential nutrients such as iodine, iron, and protein.

According to the Indonesian Ministry of Health, a mother's knowledge of nutrition significantly influences her child's feeding practices, which directly impacts the child's nutritional status and growth.[16] This is also in line with the research findings of Rahmawati and Suryani,[18] which states that good maternal nutritional knowledge contributes to preventing stunting through the implementation of a balanced diet and regular monitoring of child growth.

In addition, WHO[19]explained that low nutritional knowledge among parents is often an indirect factor contributing to stunting, as it influences family consumption behavior, sanitation, and child health care. Public nutrition education is an important strategy for increasing awareness and changing behaviors to prevent stunting.

Thus, the results of this study strengthen the theory that knowledge is one of the predisposing factors that influence health behavior.[20] The higher the level of parental knowledge, the greater their chances of implementing a nutritious diet, maintaining a clean environment, and conducting early detection of developmental disorders in children.

The results of the analysis regarding the relationship between the use of iodized salt and the incidence of stunting showed that parents who did not use iodized salt, numbering 13 respondents, showed that more than half of them, numbering 7 respondents (58.3%), had stunted children. Meanwhile, parents who used iodized salt, numbering 50 respondents, showed that almost all of them, numbering 47 respondents (94.0%), had children who were not stunted. Statistical tests using Chi-Square found that there was a significant relationship between the use of iodized salt and the incidence of stunting, with a value of ρ = 0.000, and a Prevalence Odds Ratio (POR) value = 18.27. This means that mothers who do not use iodized salt have a greater chance of having stunted children than mothers who use iodized salt.

This result is in line with the theory of the Indonesian Ministry of Health, which states that iodine deficiency is one of the causes of growth disorders in children, including stunting. Iodine plays a crucial role in the synthesis of thyroid hormones, which regulate metabolism, growth, and brain development. Chronic iodine deficiency can lead to impaired physical and mental development in children.[16]

Research by Rahmadani et al, studies also shows that regular use of iodized salt is significantly associated with a reduced risk of stunting in children under five. This is

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because adequate iodine intake can help maintain thyroid function and improve metabolism, thus supporting optimal child growth [21]

Iodine deficiency disrupts the production of thyroid hormones, T3 and T4, which play a vital role in linear growth, energy metabolism, and brain development. When thyroid hormones are insufficient, a child's growth is stunted, increasing the risk of stunting.

According to Zimmermann & Boelaert, Iodine is a key micronutrient for thyroid hormone synthesis, and its deficiency has been shown to cause growth and developmental disorders in children.[22] The World Health Organization, it also emphasized that iodine deficiency in pregnant women and children can lead to impaired fetal and toddler growth, including stunting. [23] This was reinforced by UNICEF, which confirms that iodine plays a crucial role in brain development, particularly during the first 1,000 days of life. Iodine deficiency causes impaired cognitive, motor, and immune system development, which indirectly contributes to high stunting rates. It also states that iodine deficiency affects children's linear growth and brain development, making it a contributing factor to stunting. [24]

In addition, WHO emphasizes that salt fortification with iodine is the most effective, affordable, and sustainable community nutrition intervention to prevent iodine deficiency disorders (IDD), including stunting. The extent of iodized salt use at the household level is an important indicator in assessing national nutritional status. [25]

The study results showed that the use of iodized salt in toddlers was not significantly associated with stunting. This finding aligns with a study by Abri et al in Enrekang Regency, which also reported no association between stunting status and iodized salt consumption. [26] Iodine itself is an essential micronutrient found in the body in very small amounts. This element is a major component of the hormone thyroxine, a hormone that plays a crucial role in children's growth and development. Furthermore, iodine metabolism is closely linked to growth hormone, which plays a key role in height increase. Iodine metabolism products also function in regulating nutrient metabolism, nutrient transport, and various other physiological functions. Nevertheless, the results of this study strengthen the evidence that the use of iodized salt is a protective factor against stunting, and increasing public awareness of the use of iodized salt is an important step in stunting prevention efforts at the household level.

CONCLUSION

The results of the study showed a significant relationship between parental knowledge and the incidence of stunting (ρ = 0.005) and there was a significant relationship between the use of iodized salt and the incidence of stunting (ρ = 0.000) with a Prevalence Odds Ratio (POR) value of 18.27, which means that parents who do not use iodized salt have a greater chance of having stunted children than mothers who use iodized salt. Based on the above, it can beit is concluded that the significant association between parental knowledge and stunting incidence suggests that stunting reduction programs cannot simply focus on supplementary feeding. Nutrition education, particularly regarding micronutrients such as iodine, must be a primary and sustained intervention. Not using iodized salt is a significant risk factor. This means that fortification-based interventions (iodized salt) are a cheap, easy, and effective strategy for preventing stunting, especially at the household level. Integrated service posts (Posyandu), community health centers (Puskesmas), and home visits can be utilized as educational tools for the use of iodized salt and for routine monitoring of children's nutritional status.

The first recommendation is to conduct regular counseling on nutrition and stunting at integrated health posts (Posyandu), focusing on the importance of iodine for children's brain growth and development and how to recognize and select the correct iodized salt. Conduct nutrition parenting classes for parents of toddlers, especially in areas with a

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high prevalence of stunting. Second, ensure the availability of iodized salt in traditional markets and local stalls through collaboration with distributors and local governments. Monitor and rapidly test iodine levels in household salt during Posyandu activities. Third, strengthen regulations on the use of iodized salt and product quality control at the regional level.

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REFERENCES

1. Majid M, Tharihk AJ, Zarkasyi R. *Cegah Stunting Melalui Perilaku Hidup Sehat*. Penerbit NEM; 2022.
2. Fauziah J, Trisnawati KD, Rini KPS, Putri SU. Stunting: Penyebab, Gejala, dan Pencegahan. *J Parent dan Anak*. 2023;1(2):11. doi:10.47134/jpa.v1i2.220
3. Ramadyani LR, Muh F, Martini M. The Role of Infectious Diseases in Stunting Incidence: A Literature review. *J Ris Kesehat Poltekkes Depkes Bandung*. 2025;17(2):421-432. doi:https://doi.org/10.34011/juriskesbdg.v17i2.2896
4. Pratama B, Angraini D, Nisa K. Penyebab Langsung (Immediate Cause) yang Mempengaruhi Kejadian Stunting pada Anak. *J Ilm Kesehat Sandi Husada*. 2019;8(2):299-303. doi:10.35816/jiskh.v10i2.167
5. Wahyuningrum MR, Utari DM. Faktor Risiko Dominan Terjadinya Stunting Pada Anak Usia 6-23 Bulan Di Perdesaan Dan Perkotaan Di Provinsi Sumatera Barat (Analisis Data Ssgi 2022). *Media Penelit dan Pengemb Kesehat*. 2025;35(1):274-292. doi:10.34011/jmp2k.v35i1.2441
6. Soetono B, Barokah A. Trends In Stunting Prevalence Reduction: An Examination Of Data Toward Achieving The 2024 Target In Indonesia. *Soc Perspect J*. 2024;3:51-68. doi:10.53947/tspj.v3i1.795
7. Achjar KAH, Anwar T, Raji HF, et al. *Stunting*. PT. Green Pustaka Indonesia; 2024.
8. Komalasari K, Supriati E, Sanjaya R, Ifayanti H. Faktor-Faktor Penyebab Kejadian Stunting Pada Balita: Factors Causing Stunting Incidence in Toddlers. *Maj Kesehat Indones*. 2020;1(2):51–56. doi:10.47679/makein.202010
9. Nurlenika N, Muhartati M. *Hubungan Asupan Garam Beryodium Pada Ibu Saat Hamil Dengan Kejadian Stunting Pada Balita Usia 24-59bulan Di Puskesmas Wonosari I Gunungkidul*. Universitas 'Aisyiyah Yogyakarta; 2017.
10. Gunawan H, Fatimah S, Kartini A. Hubungan Pengetahuan Dan Praktik Pemberian Makan Bayi Dan Anak (PMBA) Serta Penggunaan Garam Beryodium Dengan Kejadian Stunting. *J Kesehat Masy*. 2022;10(3). doi:https://doi.org/10.14710/jkm.v10i3.32765
11. Wulandari KNP, Sutiari NK. Knowledge and Perceptions of Housewives on the Use of Iodized Salt: A Cross-Sectional Study in Tampaksiring: Pengetahuan dan Persepsi Ibu Rumah Tangga dengan Penggunaan Garam Beryodium: Studi Cross-sectional di Tampaksiring. *Amerta Nutr*. 2023;7(4):563–568. doi:10.20473/amnt.v7i4.2023.563-568
12. Rusdi PHN, Maryona K. Hubungan Konsumsi Garam Beryodium dengan Kejadian Stunting pada Balita di Kanagarian Balingka Kabupaten Agam. *Hum Care J*. 2022;7:577. doi:10.32883/hcj.v7i3.2013
13. Dharma KK. *Metodologi Penelitian Keperawatan: Panduan Melaksanakan Dan Menerapkan Hasil Penelitian*. Trans Info Media; 2017.
14. Djaali H. *Metodologi Penelitian Kuantitatif (B. S. Fatmawati, Ed.)*. Bumi Aksara; 2020.
15. Nursalam. *Buku Metodologi Penelitian Ilmu Keperawatan Pendekatan Praktis*. Salemba Medika; 2020.

https://doi.org/10.34011/juriskesbdg.v18i1.3178

Vol 18 No 1, Mei 2026
e-ISSN: 2579-8103
p-ISSN:1979-8253

16. Kemenkes RI. *Pedoman Pelaksanaan Intervensi Gizi Dalam Percepatan Penurunan Stunting*.; 2021.
17. Notoatmodjo S. *Metode Penelitian Kesehatan*. PT Rineka Cipta; 2018.
18. Rahmawati D, Suryani N. Hubungan pengetahuan ibu tentang gizi dengan kejadian stunting pada balita. *J Kesehat Masy Andalas*. 2020;14(2):89–96.
19. World Health Organization. *Reducing Stunting in Children: Equity Considerations for Achieving the Global Nutrition Targets 2025.*; 2020.
20. Kemenkes RI. *Profil Kesehatan Indonesia Tahun 2020*.; 2020.
21. Maydinar DD, Rahmadani E, Puri C. The Relationship of Nurses Communication With the Hospitality Anxiety of Preschool Children. *J Nurs Public Heal*. 2024;12(1):27-35.
22. Zimmermann MB, Boelaert K. Iodine deficiency and thyroid disorders. *lancet Diabetes Endocrinol*. 2015;3(4):286-295. doi:10.1016/S2213-8587(14)70225-6
23. World Health Organization. *Guideline on Iodine Fortification of Food-Grade Salt*.; 2019.
24. UNICEF. *State of the World's Children 2020: Children, Food and Nutrition*.; 2020.
25. World Health Organization. *Guideline: Fortification of Food-Grade Salt with Iodine for the Prevention and Control of Iodine Deficiency Disorders*.; 2022.
26. Abri N, Sirajuddin S, Bahar B, et al. Determinants of Incident Stunting in Elementary School Children in Endemic Area Iodine Deficiency Disorders Enrekang Regency. *Open Access Maced J Med Sci*. 2022;10(E):161–167. doi:10.3889/oamjms.2022.8083

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