



Health promotion in stunting prevention efforts in South Kluet, South Aceh

Promosi kesehatan dalam pencegahan stunting di kecamatan Kluet Selatan Kabupaten Aceh Selatan

Said Usman^{1*}, MD. Tarkhi², Ismail³

¹ Faculty of Medicine, Universitas Syiah Kuala, Aceh, Indonesia

E-mail: saidusman@usk.ac.id

² Faculty of Public Health, Universitas Serambi Mekkah, Aceh, Indonesia.

E-mail: tarkhie12@gmail.com

³ Department of Nursing, Poltekkes Kemenkes Aceh, Aceh, Indonesia.

E-mail: ismail@poltekkesaceh.ac.id

*Correspondence Author:

Faculty of Medicine, Universitas Syiah Kuala. Jl. Teungku Tanoh Abee, Kopelma Darussalam, Syiah Kuala, Banda Aceh, Aceh 24415. Indonesia

E-mail: saidusman@usk.ac.id

Article History:

Received: September 14, 2024; Revised: September 21, 2024; Accepted: September 24, 2024; Published: September 26, 2024.

Publisher:



Politeknik Kesehatan Aceh
Kementerian Kesehatan RI

© The Author(s). 2024 **Open Access**

This article has been distributed under the terms of the *License Internasional Creative Commons Attribution 4.0*



Abstract

The Government of Indonesia has made stunting one of the priority health problems that must be dealt with seriously. Stunting in South Aceh in 2022 is 34,8%, which will decrease to 5,03% in 2023. However, this figure is still below the target value. This study aimed to explore health promotion through stunting prevention efforts in South Kluet, South Aceh. This study uses a qualitative method with purposive sampling. Data collection involved in-depth interviews and observations. The research was conducted in South Kluet District, South Aceh Regency, in May–July 2024. The informants were the head of the health office, sub-district head, and head of the health center. The data were analyzed using inductive content analysis methods. The results of the study show several themes, namely, improving the nutritional quality of individuals, families, and communities, taking joint action, health and nutrition education strategies through family independence, accelerating stunting reduction carried out through the healthy living community movement, the first 1000 days of life movement to accelerate stunting reduction, implementation in stunting reduction, and obstacles in the implementation of stunting reduction. In conclusion, health promotion in the implementation of stunting prevention has been going well, but needs to increase socialization efforts are required to prevent stunting.

Keywords: Collaborative action, family self-reliance, first 1000 days of life, health promotion, stunting prevention

Abstrak

Pemerintah Indonesia menjadikan stunting sebagai salah satu prioritas masalah kesehatan yang harus ditangani secara serius. Kabupaten Aceh Selatan memiliki angka stunting pada tahun 2022 yaitu 34,8%, pada tahun 2023 menurun menjadi 5,03%. Namun angka tersebut masih berada di bawah target. Tujuan penelitian untuk mengetahui promosi kesehatan dalam penanggulangan Stunting di Kecamatan Kluet Selatan Kabupaten Aceh Selatan. Studi ini menggunakan metode kualitatif dengan pengambilan sampel secara purposive sampling. Pengumpulan data menggunakan wawancara mendalam dan observasi. Penelitian dilakukan di Kecamatan Kluet Selatan Kabupaten Aceh Selatan Provinsi Aceh pada May–July 2024. Informan adalah kepala dinas kesehatan, camat dan kepala puskesmas. Hasil penelitian menunjukkan beberapa tema yaitu meningkatkan mutu gizi perseorangan, keluarga, dan masyarakat; melakukan aksi bersama; strategi edukasi kesehatan dan gizi melalui kemandirian keluarga, mempercepat penurunan stunting yang dilakukan melalui gerakan masyarakat hidup sehat; Gerakan 1000 hari pertama kehidupan untuk mempercepat penurunan stunting; implementasi dalam penurunan stunting dan hambatan dalam implementasi penurunan stunting. Analisis data menggunakan *inductive content analysis*. Kesimpulan, promosi kesehatan dalam implementasi penanggulangan stunting sudah berjalan dengan baik namun perlu peningkatan upaya sosialisai dalam melakukan pencegahan stunting.

Kata Kunci: 1000 HPK, Aksi Bersama, kemandirian keluarga, pencegahan stunting, promosi kesehatan

Introduction

Stunting is the result of chronic and recurrent malnutrition, and refers to a child who is too short for his or her age, which leads to failure to grow both physically and cognitively (Bharali et al., 2019). Globally, undernutrition contributes to more than one-third of child deaths and can be prevented through public health interventions (Darsene et al., 2017).

Based on the results of the Indonesia Nutrition Status Survey, the prevalence of stunting in Indonesia in 2021 was 24,4%, and in 2022 was 21,6%, which shows a decrease in stunting rates in Indonesia. However, this figure is still quite high, with a decrease of 3,8% per year to reach the target of 14% by 2024 in accordance with the RPJMN target (Kemenkes RI, 2022). To combat this problem, the WHO has set six global nutrition targets, one of which aims to reduce the number of stunted children under the age of five by 40% by 2025 (WHO, 2023).

Aceh has the fifth highest prevalence of stunting in Indonesia, based on the results of the SSGI, the prevalence of stunting in Aceh Province is 33,2% in 2021 and 31,2% in 2022. Stunting in the highest age group in 2021 was at the age of 24-35 months (38,71%), and by 2022, the most popular was also at the age of 24-35 months (35,57%). The five districts in Aceh Province with the highest prevalence of stunting are Subulussalam City (47,9%), North Aceh Regency (38,3%), Pidie Jaya Regency (37,8%), Simelue Regency (37,2%), and Bener Meriah Regency (37,0%) (Kemenkes RI, 2022). South Aceh Regency has a stunting rate in 2022, which is 34,8%, in 2023 it has decreased to 5,03%. Although there was a significant decrease, the stunting problem was not completely reduced by 100%. One of the sub-districts in South Aceh Regency is still being detected, and the location of the increase in stunting rates is South Kluet District, with the incidence of cases detected by 16 children under five in 2023 detected stunting (BKPK, 2023).

Based on Presidential Regulation No. 72 of 2021, concerning the Acceleration of Stunting Reduction, accelerating stunting reduction is implemented holistically, interactively, and qualitatively through coordination, synergy, and synchronization between ministries/agencies, provincial local governments, districts/cities, villages, and stakeholders. To break this stunting chain, all parties must contribute in a real way to reduce the stunting rate (Tinov et al., 2024).

Strategies and programs aimed at reducing and preventing stunting in children

under five years of age are designed to improve their nutritional status. Education about improving diet and ensuring that children have adequate intake is needed, in addition to education about the need to limit the number of children (Fufa, 2022).

Based on the results of the initial survey interviews, the indirect factor of stunting is the knowledge of the public, who thinks that stunting is not a crucial problem that must be dealt with, but stunting occurs due to hereditary or genetic factors. This assumption is supported by the direct factor of people's behavior that does not implement exclusive breastfeeding with the provision of food at the beginning of birth, such as the provision of bananas, honey, and sugar. In addition, there is uneven provision of additional food. This hail is also due to a lack of health promotion through socialization of the stunting community.

In addition, other factors include the health status of infectious diseases such as acute respiratory tract infections and diarrhea, not being given Fe tablets, and nutritional preparation for pregnancy to bride-to-be, which causes the number of stunting cases in South Kluet District to still not reach the WHO determination target. Based on a statement from one of the employees at the village office in South Kluet District, it was stated that stunting reduction had not been maximally socialized to the village apparatus, so efforts to reduce stunting did not run optimally. Thus, we aimed to explore health promotion in stunting prevention in the South Kluet sub-district, South Aceh Regency".

Methods

This study uses this type of research quality. This study was conducted in the South Kluet District, South Aceh Regency, Aceh Province, between May and July 2024. The participants were purposively selected. The informants in this study consisted of three parts: the Head of the South Aceh Regency Health Office, the South Kluet Sub-district and the Head of the South Kluet Health Center. The data collection methods used in this study included in-depth interviews and observations.

All data collection processes were conducted in the local language of Bahasa, Indonesia. The interview duration was approximately 60-90 minutes. All the voice data were recorded. Furthermore, we transcribed the

data verbatim and read the transcripts thoroughly to ensure that all the information was complete. Furthermore, we analyzed the data in three steps. Step one involved the coding process by identifying and labeling specific concepts within the data. The second step was the data categorization process, in which the codes were grouped into broader categories that capture the essence of the data. The final step was theme generation, which addressed the study's objectives (Graneheim et al. 2017).

This study received ethical approval number 181/EA/FK/2023 from the Chair of the Health Research Ethics Committee (KEPPKN) of the Faculty of Medical Sciences, Syiah Kuala University (USK). Participation was voluntary and written consent was obtained from each participant after the interviewers provided brief information about the purpose of the study. The confidentiality of the participants' data in this research was maintained by not including their real name.

Result and Discussion

Data collection was conducted using interview guidelines for informants, who were used as research sources. The participants' characteristics based on the research results are presented in Table 1.

Table 1. Characteristics of Informants

Informant	Gender	Last education	Position
Informant 1	LK	Master of Public Health	Head of the District Health Service
Informant 2	LK	Bachelor of Law	Head of South Kluet District
Informant 3	LK	D3-Nursing	Head of South Kluet Community Health Center

Improving the Nutritional Quality of Individuals, Families and Communities

Based on the results of in-depth interviews conducted by researchers with the Head of the South Aceh District Health Service, efforts to reduce stunting were carried out by improving the quality of nutrition by assisting nutritionally

aware families, conducting outreach and meetings, and conveying information about nutrition related to stunting.

"Activities to assist families to become aware of nutrition and carry out outreach, hold meetings, convey information about nutrition. "One of them is information about stunting, what is stunting, the causes of signs of stunting in children, and how to overcome stunting." (P1)

"In my opinion, yes, we have to give the public an understanding of what foods are good for them to consume, don't just do the same thing, it has to be varied and we also socialize it to cadres so that cadres convey to the public how to achieve balanced nutrition, don't just eat." (P3)

"If we focus more on sensitive nutrition, yes, if we improve the quality of nutrition, it will be by increasing existing resources so that in the future the community will be able to use and process existing resources, and pay attention to clean water and use existing technology to make progress towards stunting eradication" (P2)

Previous research has shown that low household food diversity and animal-source foods are determinant factors related to stunting; thus, education to improve household diets is necessary to prevent stunting (Fufa, 2022). Maternal education, child feeding practices, and environmental factors are the most important targets for interventions to prevent child stunting. Maternal education is strongly associated with stunting in several studies (Rahmad et al. 2022; Quamme & Iversen 2022). Argaw et al. (2022) showed that the odds of being stunted among children who consumed inadequate dietary diversity were 2.0 times more likely to be stunted than those who consumed adequate dietary diversity.

Taking Joint Actions

The health service has conducted a campaign with other agencies regarding stunting.

"There was a joint campaign activity in 2018 with BPKB and PPA, I delivered material about stunting, even now" (P1)

Campaigns have been carried out in villages such as distributing stunting prevention stickers to communities that have stunting clowns and conducting outreach at the village level to provide understanding regarding stunting prevention and management as well as carrying out activities "deliberation" to find problems that cause stunting cases to continue

to occur and find solutions so that stunting cases can be resolved.

"Yes there is, starting from last year until the end of this year we will carry out a campaign in villages, like last January we distributed stunting prevention stickers to communities who have stunting clowns and we are also collaborating with villages to disseminate information regarding prevention and control. stunting so that people in the village understand, and now we also have a discussion activity, where this activity is intended to discuss the problem of stunting and the tips that we will implement so that this problem of stunting is resolved" (P2)

The Community Health Center has carried out outreach to the community in collaboration with the village as a joint action to reduce stunting rates in their village and provide understanding to cadres to pay more attention to the surrounding community and provide understanding to the community. Stunting is not hereditary but due to compromised health problems. Distributing leaflets and collaborating with cross-sectors are also breakthroughs carried out by community health centers.

"We have carried out this joint action with the village, we are collaborating to reduce the stunting rate in our village, especially in the work area of this health center. We also provide an understanding of cadres to pay more attention to the surrounding community and provide an understanding to the community that stunting is not a result of heredity but is indeed because there are health problems that the community must pay attention to, health problems. We also distribute leaflets and collaborate with cross-sectors, because reducing stunting must cross sectors, not just nutrition." (P3)

Argaw et al, indicated the importance of stakeholder participation because this group of the population (children) is vulnerable to various problems related to parental dependency to meet their nutritional needs (Argaw et al., 2022). Previous research showed that there was an effect of leaflets media counseling to increase knowledge of stunting on pregnant women (Al Rahmad et al., 2023; Munthe, 2021).

Health and Nutrition Education Strategy through Family Independence

The context of education to reduce stunting is in Integrated Service Post (Posyandu) with a cadre who provides understanding to families to improve their ability to meet nutrition and find out about nutritional problems that exist in the family.

"The context of education to reduce stunting is in the Posyandu, where in the Posyandu the role is a cadre who we must provide training and understanding to the family to increase the family's ability to be able to fulfill nutrition and understand the nutritional problems that exist in the family." (P1)

In addition, socialization in the community is already an education given to families.

"It seems that just through socialization to the community is already the education or training that we provide to families, yes, our activities are more about socialization," (P2)

"We have carried out outreach, so when they go to the Posyandu we provide education about nutrition, that's where we provide health education for them." (P3)

In a study by Fufa (2022) recommends providing health information to families regarding the importance of good household dietary diversity, provide health information to families regarding the importance of limiting family size, and provide nutritional counseling about the benefits of animal source food.

Stunting prevention efforts are very important, one of which is based on the mothers' parenting factors. Therefore, it is necessary to improve mothers-to-be education and increase the knowledge of pregnant women with low education about parenting patterns among toddlers with respect to good and correct parenting patterns (Makatita & Djuwita, 2020). Thus, a lack of such knowledge among parents or caretakers could contribute to a higher risk in children (Quamme & Iversen, 2022).

Accelerating Stunting Reduction carried out through the Healthy Living Community Movement (GERMAS)

GERMAS is part of the health promotion section and has been mass-socialized to campaign for indicators of community movement in the context of stunting.

"Incidentally, the activities are in the health promotion section, we have already socialized the healthy living community movement, already on a mass scale, the community movement activities are campaigning for community movement indicators, in the context of stunting" (P1)

The acceleration of stunting reduction must be carried out by cross sectors and only by health.

"How about accelerating cooperation with cross sectors? It's not just the community health centers that have to join hands." (P3)

The experience of several countries that have succeeded in reducing the prevalence of stunting is based on a strong commitment from the government to formulate policies and their implementation, sustainable political commitment, a multi-sectoral approach, organizational regulation at all levels, and increasing access to quality health services (Avula et al., 2020; Avula et al., 2022).

The first 1000 days of life movement to accelerate Stunting Reduction

The first 1000 Days of Life have become a routine activity for health services. Pregnant women are administered blood supplement tablets (Fe), and during pregnancy, they are given additional food. After giving birth, they are monitored through maternal and child health books.

"The first 1000 days of life concept is actually a routine activity that is always carried out by the health service. 1000 HPK cases from pregnant mothers. We have given FE tablets to pregnant women, we have given PMT to pregnant women, we have also provided assistance in monitoring the nutritional status of pregnant women. After she gave birth, we also continued to monitor the maternal and child health book." (P1)

The first 1000 days of life movement have been strengthened through integrated counseling on toddler family development.

"Continue to provide counseling in integrated toddler family development " (P2)

The first 1000 days of life movement has been carried out by village midwives to monitor pregnancies from the first trimester to babies aged 24 months, so that the nutritional needs of

pregnant women and their babies can be met by providing supplementary food.

"The first 1000 days of life movement has been carried out by village midwives to monitor pregnancies from the first trimester up to 24 month old babies so that the nutritional needs of pregnant women and their babies can be met by providing supplementary food" (P3)

The European Foundation for the Care of Newborn Infants states that the first 1000 days of life – the period between conception and a child's 2nd birthday – is a unique window of opportunity to support child development and long-term health (Likhari & Patil, 2022). Young et al show maternal nutritional status affects the linear growth of offspring and the risk of stunting during the first 1000 days (Young et al., 2018).

Three main phases require the optimal role of mothers in preventing stunting in children during the golden phase: preconception, prenatal, and infant and toddler phases. The various roles of mothers include fulfilling the nutrition of mothers, fetuses, infants, and children; performing early breastfeeding initiation; exclusive breastfeeding; appropriate complementary feeding; optimizing the environment for children's growth and development; optimizing family support; and avoiding various psychosocial factors that can be detrimental during pregnancy, growth, and development of children (Mulyani et al., 2023; Saleh et al., 2021).

Implementation in Reducing Stunting

It was implemented to reduce stunting through specific nutrition, which contributed 30% to the first activity of providing blood supplement tablets (Fe), followed by providing additional food to pregnant women with chronic energy deficiency. Socialization or counseling activities in villages. Individual prevention is usually more directed at community health centers, such as during pregnancy, blood supplementation tablets are given, mosquito nets are given to pregnant women, additional food is given to mothers who experience chronic energy and protein deficiency, and when giving birth health workers should continue to monitor the health of the mother and baby by weighing them, providing complete basic immunization, recommending early breastfeeding initiation, recommending exclusive and full breast milk until the age of 24 months, and providing

complementary feedings. Providing deworming medicine for the prevention and treatment of diarrhea.

"We have carried out activities in accordance with existing regulations, where we from the health sector carry out specific nutritional interventions which contribute 30%. The first activity we carried out was giving blood supplement tablets (Fe) to young women and school-age children starting from menstruation around the age of 11 or 12 years to the age of 18 years, meaning middle and high school. The administration of Fe tablets continues in pregnant women, totaling 90 tablets, specifically for pregnant women. We also provided additional food to pregnant women who experienced chronic energy deficiency. Third, there are socialization or counseling activities in stunting locus villages. In fact, we in the department focus more on outreach by providing material about stunting prevention, overcoming it, what causes stunting, and others. For individual prevention, we usually direct it more to the community health center" (P1)

"We have carried out programs related to reducing stunting, one of which is providing additional food to pregnant women who experience CED and there are also things like giving 90 blood supplement tablets to pregnant women, we also provide mosquito nets to protect pregnant women to avoid malaria. and provides additional food to pregnant women. After giving birth, village midwives also carry out IMD for the mother and child by placing the newborn baby on the mother's chest. We always recommend giving exclusive breast milk to the child for six months without giving any food or drink other than breast milk, even just water, except for medicine. Yes, if the baby is sick, then drink breast milk, and we always recommend giving full breast milk until the age of 24 months accompanied by complementary feeding (MP-ASI). We recommend complete basic immunization, as well as worming medication and deworming for the prevention and treatment of diarrhea for babies or mothers." (P3)

This finding agrees with that of studies from Ghana, which showed that exclusive breastfeeding was significantly associated with a higher risk of stunting and wasting. The present results showed that children who were not exclusively breastfed were more likely to be stunted and wasted than those who were exclusively breastfed (Danso & Appiah, 2023). Additionally, knowledge of the benefits of breastfeeding is key to ensuring proper nutrition during the first months of life. After exclusive

breastfeeding, it is important to offer nutritious meals multiple times a day because of the small stomachs. Knowledge of feeding practices varies among parents (Quamme and Iversen, 2022).

The results of research by Fufa (2022) show that stunting was significantly associated with poor household dietary diversity. Berendsen et al. (2016) conducted a large-scale study on the effect of vaccine timing in 2016. The results showed that the children who received the vaccine had a reduced risk of stunting. In Rwanda, not taking deworming drugs used to reduce helminth and parasite infections during pregnancy have led to a higher risk (Nshimyiryo et al., 2019).

In addition, it monitors villages to monitor the activities that have been carried out as well as socialize stunting and its countermeasures.

"Yes, we are monitoring the villages. because we have officers who go directly to the field to monitor activities that have been implemented, such as this new program which is carried out in every village, not just stunting villages, to prevent stunting from the beginning of a teenager's growth period until he becomes a parent, yes, in the name counseling information center group the program is youth development, and we carry out outreach with the South Aceh Regency Health Service by delivering material on how to increase intelligence in children, parenting styles to hone children's intelligence according to their age and the South Aceh District Health Service delivers material on how to prevent stunting, whatever causes of stunting, how to overcome it, so there is collaboration between agencies to reduce stunting rates" I(P2)

Barriers to Implementing Stunting Reduction

There are several obstacles to implementing stunting reduction, such as the difficulty in controlling and ascertaining whether the distributed Fe tablets are consumed regularly by the community, as well as the type of supplementary feeding that does not meet the standards. because it is difficult to make a single voice when determining the type of supplementary feeding.

"The biggest obstacle in reducing the stunting rate is monitoring the administration of Fe tablets. We distribute the Fe tablets but we cannot confirm whether the medicine is being taken or not ... and the types of PMT given are still

varied because we have given authority to health centers in collaboration with cadres regarding the type of complementary feeding given, because during the discussion regarding the type of PMT no agreement was found." (P1)

"Adolescent girls don't want to take blood-enhancing tablets because they feel nauseous and their stools change color, and during the distribution of Fe tablets many said they should only be taken at home, of course this means we can't be sure whether the Fe tablets were taken or not and "The types of supplementary feeding are still diverse in each village, because there is no agreement on the type of complementary feeding given." (P3)

Moreover, there are obstacles to implementing stunting reduction, such as a limited budget, although this can still be overcome by collaboration between agencies with the same target, namely, stunting villages.

"The obstacle is actually a classic one, namely a limited budget. "But we can still overcome it by collaborating or integrating all existing agencies with the same target, namely stunting villages." (P2)

The implementation of stunting reduction initiatives faces several significant challenges, particularly concerning monitoring and adherence to iron (Fe) tablet consumption among the community. As noted by one informant, *"The biggest obstacle to reducing the stunting rate is monitoring the administration of Fe tablets. We distribute the Fe tablets but we cannot confirm whether the medicine is being taken or not."* This issue highlights a critical gap in ensuring that health interventions translate into health benefits for the target population. Research indicates that proper adherence to iron supplementation is essential for improving the iron status and ultimately reducing anemia, which is closely linked to stunting in children (Armitage & Moretti, 2019; Yani et al., 2023). Without effective monitoring mechanisms, it is challenging to assess the impact of these interventions on stunting rates.

Additionally, the variability in the types of supplementary feeding poses another hurdle. As stated by another participant, *"The types of supplementary feeding are still diverse in each village, because there is no agreement on the type of complementary feeding given."* This lack of standardization can lead to inconsistencies in the nutritional quality of the food provided to

children, which is crucial for their growth and development. The literature supports the need for uniformity in supplementary feeding programs to ensure that all children receive the nutrients necessary for optimal growth (Elisaria et al., 2021). Discrepancies arise when local health centers are given autonomy without clear guidelines, which may undermine the overall effectiveness of stunting reduction strategies.

Budgetary constraints further complicate this scenario. Limited financial resources can restrict the scope of the interventions and reduce their effectiveness. However, as highlighted by a participant, *"We can still overcome it by collaborating or integrating all existing agencies with the same target, namely stunting villages."* Collaboration among various stakeholders can enhance resource allocation and program implementation, thereby creating a more robust framework for tackling stunting. Evidence shows that integrated approaches involving multiple sectors are vital for addressing complex public health issues, such as stunting, as they foster coordinated efforts that leverage resources more efficiently (Elisaria et al., 2021).

To overcome these obstacles, it is imperative to establish robust monitoring systems for Fe tablet consumption, standardize supplementary feeding programs, and promote interagency collaboration. By comprehensively addressing these challenges, efforts to reduce stunting in Aceh can be significantly enhanced, ultimately leading to better health outcomes for vulnerable populations.

Conclusion

Health promotion in the implementation of the stunting reduction policy has been carried out well in accordance with the regional regulations of the Regent of South Aceh regarding Stunting Reduction, but it is still not optimal in socializing it to the community; therefore, there are still some people who do not understand how to reduce stunting and the dangers of the importance of early prevention of stunting. Several specific nutrition intervention programs have been carried out, but in their implementation, there are still several obstacles, such as ensuring that Fe tablets are consumed and agreeing on the type of supplementary feeding program to be administered.

Recommendations for strategies to increase socialization or improve coordination

of intervention programs. To effectively reduce stunting in Aceh, strengthening community education on prevention, ensuring adherence to iron tablet consumption, standardizing nutrition programs, and engaging local leaders in support initiatives.

Acknowledgements

The researchers are thankful to all the informants for their willingness to participate.

References

- Akseer, N., Vaivada, T., Rothschild, O., Ho, K., & Bhutta, Z. A. (2020). Understanding multifactorial drivers of child stunting reduction in Exemplar countries: A mixed-methods approach. *The American Journal of Clinical Nutrition*, 112, 792S-805S. <https://doi.org/https://doi.org/10.1093/ajcn/nqaa152>
- Al Rahmad, A. H., Iskandar, I., Fadjri, T. K., & Hadi, A. (2022). Utilization of the Growth Chart module in increasing mothers' knowledge to monitor the growth of toddlers. *Kesmas Indonesia*, 14(1), 110–120. <https://doi.org/10.20884/1.ki.2022.14.1.640>
- Al Rahmad, A. H., Sofyan, H., Usman, S., Mudatsir, M., & Firdaus, S. B. (2023). Pemanfaatan leaflet dan poster sebagai media edukasi gizi seimbang terhadap peningkatan pengetahuan dan sikap remaja putri di Aceh Besar. *Jurnal Media Penelitian Dan Pengembangan Kesehatan*, 33(1), 23–32. <https://jurnal.polkesban.ac.id/index.php/jmp2k/article/view/1863/973>
- Argaw, D., Hussen Kabthyer, R., Endale, T., Wudneh, A., Daniel Meshesha, M., Tadesse Hirbu, J., Bayisa, Y., Abebe, L., Tilahun, R., Aregawi, S., Lodebo Funga, M., Wodaynew, T., Demisse, B., Cherinet Eritero, A., Getachew Assefa, D., Daganchew Zeleke, E., Mengistu, N., Temesgen Alemu, K., & Molla, W. (2022). Stunting and associated factors among primary school children in Ethiopia: School-based cross-sectional study. *International Journal of Africa Nursing Sciences*, 17, 100451. <https://doi.org/https://doi.org/10.1016/j.ijans.2022.100451>
- Armitage, A. E., & Moretti, D. (2019). The Importance of Iron Status for Young Children in Low- and Middle-Income Countries: A Narrative Review. In *Pharmaceuticals* (Vol. 12, Issue 2). <https://doi.org/10.3390/ph12020059>
- Avula, R., Nguyen, P. H., Tran, L. M., Kaur, S., Bhatia, N., Sarwal, R., de Wagt, A., Chaudhery, D. N., & Menon, P. (2022). Reducing childhood stunting in India: Insights from four subnational success cases. *Food Security*, 14(4), 1085–1097. <https://doi.org/10.1007/s12571-021-01252-x>
- Berendsen, M. L. T., Smits, J., Netea, M. G., & van der Ven, A. (2016). Non-specific Effects of Vaccines and Stunting: Timing May Be Essential. *EBioMedicine*, 8, 341–348. <https://doi.org/10.1016/j.ebiom.2016.05.010>
- Bharali, N., Singh, K. N., & Mondal, N. (2019). Composite Index of Anthropometric Failure (CIAF) among Sonowal Kachari tribal preschool children of flood effected region of Assam, India. *Anthropological Review*, 82(2), 163–176. <https://doi.org/10.2478/anre-2019-0012>
- BKPK. (2023). *Survei Kesehatan Indonesia (SKI) 2023*. <https://www.badankebijakan.kemkes.go.id/ski-2023-dalam-angka/>
- Danso, F., & Appiah, M. A. (2023). Prevalence and associated factors influencing stunting and wasting among children of ages 1 to 5 years in Nkwanta South Municipality, Ghana. *Nutrition*, 110, 111996. <https://doi.org/https://doi.org/10.1016/j.nut.2023.111996>
- Darsene, H., Geleto, A., Gebeyehu, A., & Meseret, S. (2017). Magnitude and predictors of undernutrition among children aged six to fifty nine months in Ethiopia: a cross sectional study. *Archives of Public Health*, 75(1), 29. <https://doi.org/10.1186/s13690-017-0198-4>
- 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. <https://doi.org/10.1186/s40795-021-00421-7>
- Fufa, D. A. (2022). Determinants of stunting in children under five years in dibate district of Ethiopia: A case-control study. *Human*

- Nutrition & Metabolism*, 30, 200162. <https://doi.org/https://doi.org/10.1016/j.nhm.2022.200162>
- Graneheim, U. H., Lindgren, B.-M., & Lundman, B. (2017). Methodological challenges in qualitative content analysis: A discussion paper. *Nurse Education Today*, 56, 29–34. <https://doi.org/https://doi.org/10.1016/j.nedt.2017.06.002>
- Kemenkes RI. (2022). Survei Status Gizi SSGI 2022. In *BKPK Kemenkes RI*. Kementerian Kesehatan RI.
- Likhar, A., & Patil, M. S. (2022). Importance of Maternal Nutrition in the First 1,000 Days of Life and Its Effects on Child Development: A Narrative Review. *Cureus*, 14(10), e30083. <https://doi.org/10.7759/cureus.30083>
- Makatita, S., & Djuwita, R. (2020). Relationship of mothers' parenting and stunting in toddlers aged 12-36 months in Bogor regency, West Java Province, Indonesia in 2019. *Indian Journal of Public Health Research & Development*, 11(6), 1463–1469.
- Mulyani, N. S., Arnisam, A., Andriani, A., Fitriarningsih, E., Hadi, A., & Al Rahmad, A. H. (2023). The Effect of Nutrition Counseling on Mother's Knowledge and Nutrition Information in Autistic Children in Banda Aceh City. *Open Access Macedonian Journal of Medical Sciences*, 11(E), 239–242. <https://doi.org/https://doi.org/10.3889/oamjms.2023.9573>
- Munthe, J. (2021). The Effect of Leaflet Media Counseling To Increase Stunting Knowledge On Pregnant Women. *Science Midwifery*, 9(2), 595–599. <https://doi.org/10.35335/midwifery.v9i2.955>
- Nshimiyiryo, A., Hedt-Gauthier, B., Mutaganzwa, C., Kirk, C. M., Beck, K., Ndayisaba, A., Mubiligi, J., Kateera, F., & El-Khatib, Z. (2019). Risk factors for stunting among children under five years: a cross-sectional population-based study in Rwanda using the 2015 Demographic and Health Survey. *BMC Public Health*, 19(1), 175. <https://doi.org/10.1186/s12889-019-6504-z>
- Quamme, S. H., & Iversen, P. O. (2022). Prevalence of child stunting in Sub-Saharan Africa and its risk factors. *Clinical Nutrition Open Science*, 42, 49–61. <https://doi.org/https://doi.org/10.1016/j.nutos.2022.01.009>
- Saleh, A., Syahrul, S., Hadju, V., Andriani, I., & Restika, I. (2021). Role of Maternal in Preventing Stunting: a Systematic Review. *Gaceta Sanitaria*, 35, S576–S582. <https://doi.org/https://doi.org/10.1016/j.gaceta.2021.10.087>
- Tinov, M. Y. T., Isril, I., Harirah, Z., & Wasillah, A. (2024). Stunting Prevention in Collaborative Governance Perspective. *International Conference on Social and Politics (ICSP 2023)*, 172–180. https://doi.org/10.2991/978-2-38476-194-4_19
- WHO. (2023). *Identification of severe acute malnutrition requiring inpatient care in children 6–59 months of age*. <https://www.who.int/2>. <https://www.who.int/tools/elena/interventions/sam-identification-inpatient>
- Yani, M., Azhari, A., Al Rahmad, A. H., Bastian, F., Ilzana, T. M., Rahmi, C. R., Andriaty, S. N., Chanda, A., & Salsabila, S. (2023). The relationship between menarche and nutritional status in Junior High School students in Aceh Besar. A study from 30 years of armed conflict area, Aceh, Indonesia. *Action: Aceh Nutrition Journal*, 8(4), 635–641. <https://doi.org/10.30867/action.v8i4.1310>
- Young, M. F., Nguyen, P. H., Gonzalez Casanova, I., Addo, O. Y., Tran, L. M., Nguyen, S., Martorell, R., & Ramakrishnan, U. (2018). Role of maternal preconception nutrition on offspring growth and risk of stunting across the first 1000 days in Vietnam: A prospective cohort study. *PLOS ONE*, 13(8), e0203201. <https://doi.org/10.1371/journal.pone.0203201>