Jurnal Aisyah: Jurnal Ilmu Kesehatan

Volume 7, Issue 3, September 2022, p. 663–668
ISSN 2502-4825 (print), ISSN 2502-9495 (online)

Determinants of "Baduta" Stunting and Toddlers in Indonesia: Literature Review

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ARTICLE INFO

Article history:

Received 11 April 2022
Accepted 21 July 2022
Published 10 September 2022

Keyword:

Stunting
Baduta
Toddlers

A B S T R A C T

Stunting is a condition where a child's body is shorter than the normal size due to lack of nutrition, usually children who suffer from stunting are seen after 24 months of age. Stunting is still a case that must be considered given the high rate of stunting in children in Indonesia. The purpose of this literature review is to determine the determinants of the incidence of stunting in baduta and toddlers. The method used in this article is a literature review with a review of 13 articles that fall into the inclusion criteria. Search articles through three databases, they are Google Scholar, PubMed and JSTOR with the publication year 2017-2021. From the results of the review, it was found that the causes that were closely related to the incidence of stunting in baduta were exclusive breastfeeding, LBW and birth length and the independent variables that had a significant on stunting in toddlers exclusive breastfeeding, consumption of vitamin Fe, nutrients containing energy, protein intake, complete basic immunization, complementary feeding, baby's birth weight, baby's birth length and consumption of vitamin D.

Kata kunci:

Stunting
Baduta
Toddlers

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DOI: 10.30604/jika.v7i3.906

A B S T R A K

Stunting merupakan kondisi tubuh anak lebih pendek dari ukuran normal akibat dari pemenuhan gizi kurang, biasanya anak yang menderita stunting terlihat setelah usia 24 bulan. Stunting masih menjadi kasus yang harus diperhatikan mengingat tingginya angka stunting pada anak di Indonesia. Tujuan dari review literatur ini untuk mengetahui determinan terhadap kejadian stunting pada baduta dan balita. Metode yang dipakai pada artikel ini adalah literature review dengan telaah dari 13 artikel yang masuk dalam kriteria inklusi. Penelusuran artikel melalui tiga database yaitu Google Scholar, PubMed dan JSTOR dengan tahun publikasi yaitu 2017-2021. Dari hasil review diperoleh penyebab yang berkaitan erat dengan kejadian stunting pada baduta adalah ASI eksklusif, BBLR dan Panjang lahir dan variabel independen yang memiliki signifikan berarti terhadap stunting pada balita meliputi konsumsi ASI secara eksklusif, konsumsi vitamin Fe, nutrisi zat yang mengandung energi, asupan protein, riwayat imunisasi dasar lengkap, makanan penyerta ASI, berat lahir bayi, panjang lahir bayi dan pemberian vitamin D.

INTRODUCTION

Stunting is an event that is experienced in children, marked by the child's body growth being not maximal (short) due to the consumption of less nutrients, this occurs in a short period of time, as a result the child has a height below the normal average. An important time in providing nutrition to children is at 1,000 HPK (first day of life) so as not to cause *stunting* in children. The short-term impact of *stunting,* apart from disrupted child growth and development, also hampers the development of children's cognitive abilities. The medium term impact can be a decrease in productivity and quality levels as adults. The long-term impact caused by *stunting* can be metabolic disorders, heart disease, stroke and diabetes mellitus (Sutarto, Adilla Dwi Nur Yadika, 2019) .

Based on WHO data in 2019, the prevalence of *stunting* in children under 5 years old reached 52.6 million children (31%), *wasting* was 14.7 million children (24.9%) and *overweight* was 5 million children (3%). In 2018 there were 3 countries in Southeast Asia with high *stunting cases*, India (34.7%), Indonesia (30.6%) and Bangladesh (28%) (World Health Organization, 2020). This means that more than a third, 8.8 million Indonesian children, are on average short in stature due to malnutrition (Oka et al., 2020). According to WHO, if the prevalence of stunting reaches 20% or more, this is a public health problem in that country. The *World Health Assembly* (WHA) is a WHO program that plans by 2025 the *stunting prevalence rate* will decrease to 40% in countries that have *stunting cases.* (World Health Organization, 2020). The prevalence of *stunting* in Indonesia is still relatively high and must be given special attention (Ilmi Khoiriyah et al., 2021).

According to Riskesdas data in 2018, the *stunting prevalence rate* in that year decreased by 30.8% compared to 2013 which was 37.2%. Although the *stunting prevalence rate* in Indonesia has decreased, this figure is still in the high category according to WHO (Oka et al., 2020). NTT Province is the area that has the highest proportion of *stunting* , which is 42.6% and the lowest is in DKI Jakarta Province, which is only 17.7% (Ilmi Khoiriyah et al., 2021). In Indonesia, *stunting cases* with the age group of 3-5 years have a higher prevalence of *stunting*, with an average of 47.1%, compared to baduta, which is 41.2% (Nursyamsiyah, Yulida Sobrie, 2019).

Stunting cases in Indonesia are still quite high when referring to the threshold value set by WHO, which is 20%. In South Sulawesi, 24 regencies/cities were monitored to see the incidence of *stunting. The* prevalence of stunting children (2014) reached 34.5% and decreased to 34.1% (2015). Cases again increased by 35.6% (2016) and (2017) decreased to 34.8%. While the case in Makassar City, the prevalence of *stunting* was lower than the case in South Sulawesi, which was 25.2% (Oka et al., 2020).

Based on data from the Kendari City Health Office, Kendari City experiences an increase in the incidence of *stunting cases* every year. In 2016, from 15,875 children, 669 children were *stunted*. In 2017 out of 18,300 children, 1,662 were *stunted*. And in 2018 out of 28,164 children, 2,162 children experienced *stunting*. However, in Kendari City the *stunting prevalence rate* until 2018 was still below 20% with the percentage of very short criteria of 15.2% and short criteria of 17.4% (Nofitasari et al., 2021).

The cause of *stunting* is influenced by multidimensional factors*.* The child's external factors are the environment, behavior and economic conditions of the child's parents. Environmental factors can be in the form of inadequate clean water facilities, family latrine ownership, mineral water facilities are not good. Behavioral factors of parents in the form of not washing hands with soap, parenting patterns, giving complementary feeding, providing food diversity, exclusive breastfeeding, giving complete immunizations, mother's knowledge and so on. Economic factors can be in the form of a low level of family income, nutritional intake, lack of protein and energy and others. While the internal factors of the child include LBW, the length of the baby at birth, a history of infection. Based on the literature, the dominant factors that influence the incidence of *stunting* in 2020-2021 are a history of low birth weight, exclusive breastfeeding, complete basic immunization history, energy intake, mother's knowledge and family income. However, the research will focus on the factors that influence the *stunting of* baduta and toddlers related to the condition of nutritional status, nutritional intake and treatment of children.

METHOD

This research method uses literature study by analyzing the *literature review design*. *Literature review* is done by searching for articles in *the database Google Scholar, Jstor* and *Pubmed* with the search terms for *stunting determinants*, baduta and toddlers, with a time *range* of five years back, namely 2017-2021.

The inclusion criteria consisted of *stunting cases* in Indonesia, carried out on baduta and toddlers, articles published in 2017-2021, the independent variables studied were the determinant factors that caused *stunting* seen from the characteristics of children under five. The exclusion criteria from the selection of articles were children who suffered from physical disorders or disabilities, articles resulting from a *literature review/systematic review*.

In the search for articles obtained as many as 259 articles from 3 databases filtered by keywords. And 13 articles were selected that were included in the research inclusion criteria. 2 articles on stunting events experienced by baduta and 11 articles on *stunting events* that occur in toddlers.

RESULT AND DISCUSSION

A total of 13 articles were selected from the literature collection through *the database google scholar, Jstor* and pubmed. The results of *the review* of the 13 articles are presented in table 1. From the results of the *review of the* 13 selected articles, the variables related to the p value < 0.05 for *stunting cases in children under five* are presented in table 2 and *stunting* in children under five are summarized in table 3.

 ISSN 2502-4825 (print), ISSN 2502-9495 (online)

Table 1
***Review* of Article Titles in accordance with the Inclusion Criteria**

No	Title	Author	Journal	Volume, Number	Moon, year of publication
1	*Logistic Regression Analysis on the Determinants of Stunting among Children Aged 6-24 Months in Purworejo Regency, Central Java*	Atika R. , Yulia l. RD, Bhisma M.	Journal of Maternal and Child Health	Volume 4, Number 3	2019
2	*Low Birth Weight and Maternal Anemia as Predictors of Stunting in Children aged 12-24 months in Genuk, Semarang City*	Wulandari M., Dian PKR, Indri AP	MGMI	Volume 13, Number 1	December 2021
3	*Relationship of Family Income, Birth Weight and Birth Length with Stunting Incidences Toddlers 24-59 months in Bangkalan*	Rizki Kurnia Illahi	Journal of Health Management	Volume 3, Number 1	April 2017
4	*Determinants of Stunting Incidence in Toddlers Age 24-59 months in Silayang, Pasaman Regency*	Resty N., Febriyeni	Health Scientific Journal	Volume 12, Number 2	September 2020
5	*Analysis of the history of exclusive breastfeeding with stunting in toddlers aged 24-59 months in Way Urang, South Lampung Regency*	Sutarto, Adilla DNY, Reni I.	Indonesian Journal of Public Health	Volume 16, Number 3	September 2021
6	*Relationship of nutrition components in toddlers age 25-59 months to stunting and short stature incidents in Pragaan District, Sumenep Regency*	Pertiwi FC, Conita WS	Medical Science Journal of Health Sciences and Family Medicine	Vol. 17, No. 1	June 2021
7	*The relationship between energy intake and protein intake with the incidence of stunting in toddlers (24-59 months) in Karanganyar Village, Kawalu District, Tasikmalaya City*	Iseu S, A, Andi EY	Indonesian Journal of Community Health	Volume 17, Number 1	March 2021
8	*The relationship between diet and exclusive breastfeeding with the incidence of stunting in toddlers aged 24-59 months at the Posyandu in the Teluk Dalam in 2020*	David Siagian, Sahrul Amin	Public Health Journal	Volume 7, Number 2	April 2021
9	Factors related to the incidence of stunting in children aged 24-59 months	Nursyamsiyah, Yulida S., Bani S.	Journal of Psychiatric Nursing	Volume 4, Number 3	Aug 2021
10	*Factors related to the incidence of stunting in toddlers aged 24-59 months in Bantargadung Village, Sukabumi Regency in 2019*	Hana IK, Fenti DP, Tika NP	Promoter Public Health Student Journal	Volume 4, Number 2	April 2021
11	Characteristics of the determinants of *stunting* in children under five aged 24-59 months in the Slum Area, Bontoala District, Makassar City	Sitti HM, Hasriwiani HA, Muhammad I.	Window of Public Health Journal	Volume 01, Number 03	October 2020
12	*Factors Related to stunting in toddlers aged 25-59 months in Posyandu Bontonyeleng Health Center Area*	Andi N., Andi TF, Ely Kurniati, Sri EJ	Journal of Life Birth	Volume 5, Number 2	August 2021
13	*Factors related to stunting events in baby 25-59 months at Tanjung Wangi Village, Pataruman Health Center West Bandung Indonesia*	Budiman, Teguh AB, Laras P.	Aisyah's Journal: Journal of Health Sciences	Volume 6, *Special Issue* 1	2021

Table 2
Independent Variables related to Stunting Cases in Baduta

Study	Variable		
	Exclusive breastfeeding	LBW	Birth length
Atika R., Yulia LRW, Bhisma M.	P=0.002	P=0.024	
Wulandari M., Dian PKR, Indri AP		P=0.047	P=0.000

Table 3
Independent Variables that have Closeness to Stunting in Toddlers

Study	Variable								
	Exclusive breastfeeding	Supp. Fe	Energy intake	Protein intake	Basic Immunization History	MP ASI	LBW	Birth length	Supp. Vitamin D
Rizki Kurnia Illahi							P=0.043	P=0.080	
Resty Noflidaputri, Febriyeni							P=0.019		
Sutarto, Adilla Dwi Nur Yadika, Reni Indriyani	P = 0.001								
Pertiwi Febriana C., Conita Walida S.	P = 0.000	P = 0.000							
Iseu Siti Aisyah, Andi Eka Yunianto			P = 0.000	P = 0.000					
David Siagian, Sahrul Amin	P = 0.008								
Nursyamsiyah, Yulida Sobrie, Bani Sakti					P = 0.028				
Hana IK, Fenti DP, Tika NP	P=0.001		P=0.001			P=0.039			
Sitti HM, Hasriwiani HA, Muhammad I.	P=0.000				P=0.000				
Andi N., Andi TF, Ely Kurniati, Sri EJ	P=0.001						P=0.019		
Budiman, Teguh Akbar Budiana, Laras Pualamsari								P = 0.021	P = 0.022

Exclusive breastfeeding

From the results of *the literature review,* it was found that 1 article was related to *stunting* in children under two years old. It was obtained (*p -value* = 0.002) which concluded that there was a close relationship between exclusive breastfeeding and *stunting* in children aged 6-24 months in Purworejo, Central Java (Rakhmahayu et al., 2019).

While the results *of the literature review* obtained 6 articles on *stunting* in children under five that were related to exclusive breastfeeding. Of the 9 articles *reviewed*, the factor that often appears and is associated with *stunting* is exclusive breastfeeding. Sutarto's research stated that (*p -value* = 0.001) means that exclusive breastfeeding is related to *stunting* in toddlers in South Lampung. With an OR of 8.2 toddlers with non-exclusive breastfeeding have an 8.2 times risk of developing *stunting* (Sutarto, Adilla Dwi Nur Yadika, 2019).

In David's research, a p-value of 0.008 was obtained, which means that exclusive breastfeeding is related to *stunting* experienced by toddlers at the Teluk Dalam Posyandu (Siagian & Amin, 2021). Hana also stated that there was a close relationship between the consumption of exclusive breastfeeding and the *stunting rate* in Sukabumi. OR=5,315 concluded that non-exclusively breastfed toddlers had 5,315 times the risk of suffering from *stunting* than children with exclusive breastfeeding (Ilmi Khoiriyah et al., 2021).

Exclusive breastfeeding can improve child nutrition. Lack of exclusive breastfeeding increases the risk of *stunting.* Another benefit of exclusive breastfeeding is that it can reduce contamination of pathogenic bacteria into the body from the consumption of complementary foods, and inappropriate consumption of complementary foods can cause caloric insufficiency that leads to malnutrition in children (Siagian & Amin, 2021). Exclusive breastfeeding is ideally given at the age of 0-6 months before the baby is given MP-ASI. The content in exclusive breast milk that is useful for the nutritional needs and growth of babies is vitamins A, D, E, K, B12, calcium and minerals (Rakhmahayu et al., 2019).

Of the 7 literatures *reviewed,* the factors that influence mothers not to exclusively breastfeed their babies are low maternal education, low breast milk production and working mothers. After starting to work again, mothers find it difficult to exclusively breastfeed, so they are assisted with formula milk to meet the needs of their toddlers. Fulfillment of breast milk that is not sufficient due to low milk production causes mothers to provide food/drinks other than breast milk to toddlers aged less than 6 months (Sutarto, Adilla Dwi Nur Yadika, 2019). Mothers with a high level of education are expected to be able to receive health education for pregnant women easily, for example, fulfilling adequate

nutrition for pregnant women and giving their babies exclusive breastfeeding for 6 full months (Budiman et al., 2021).

Provision of *Fe* . Supplements

The results of the review obtained 1 article which said there was a relationship between routinely taking iron *supplements* during pregnancy and the incidence of *stunting*. However, the consumption of iron *supplements during pregnancy is not the only factor that* affects babies with short stature. Lack of Fe nutrition in mothers during pregnancy does not only come from *supplements*/additional vitamins, but Fe is also obtained from the consumption of meat and natural food ingredients (Chandrawati & Sabrina, 2021).

Energy Intake

From the results of *a* literature review conducted, 2 articles were obtained, Hana's research stated that there was a relationship between energy consumption and *stunting* in Bantargadung Village. Children who are given low energy consumption have a 14,423 times greater risk of developing *stunting* compared to children with fulfilled energy consumption (Ilmi Khoiriyah et al., 2021). Iseu's research also states that there is a relationship between energy consumption and stunting rates in toddlers in Tasikmalaya City. Lack of energy intake is 6.111 times more risky for *stunting* in toddlers in Tasikmalaya (Kelly, 2020).

Consumption of poor quality and adequate nutrition, especially energy intake, can cause impaired physical growth in children under five. In this study, energy intake can cause *stunting* due to other supporting factors, namely a history of infectious diseases or carrier diseases that can disrupt the process of energy absorption by the body (Ilmi Khoiriyah et al., 2021).

Protein Intake

From the results of *the literature review*, 1 article was obtained, namely Iseu's research which concluded that protein intake and *stunting cases* had a significant relationship. Protein consumption is 5,160 times less risky for stunting than toddlers with adequate protein intake. Consumption of protein can affect the growth and development of toddlers. Therefore, quality protein intake is needed for the prevention of *stunting* in toddlers (Kelly, 2020).

Basic Immunization History

Obtained 2 articles from the results of *a* literature review. Nursyamsiyah concluded that there was a significant relationship (p-value = *0.028*) between a history of basic immunization and *stunting* in children under five in West Bandung Regency, OR = 3.5, meaning that toddlers who were given incomplete basic immunization had a 3.5 times risk of stunting than children who had a history of complete basic immunization (Nursyamsiyah, Yulida Sobrie, 2019).

Based on Sitti Hutami's research (*p -value* = 0.000) also concluded that there was a significant relationship between immunization history and *stunting.* From Sitti Hutami's research, it was found that OR = 6.04, meaning that toddlers with incomplete immunization status had a 6.04 times risk of experiencing *stunting* compared to toddlers with complete immunizations (Oka et al., 2020).

Incomplete immunization can affect a toddler's immune system, which makes toddlers more susceptible to disease. Children who are easily infected with diseases and are left on a regular basis will be more prone to *stunting* (Oka et al., 2020). In addition, immunization can also prevent malnutrition in children who are multisectoral. By routinely immunizing health services, it is easier to know the nutritional development of children with the interaction between mother, child and health services (Nursyamsiyah, Yulida Sobrie, 2019).

Complementary feeding

The results of the review obtained 1 article that had a significant relationship to *stunting*, namely (*p -value* = 0.039) a history of giving MP-ASI in Indonesia Sukabumi Regency. With OR = 3.917, which means that toddlers who are given MP-ASI that are not according to their age, the chance of getting *stunting is 3.917 times* compared to toddlers who are given MP-ASI according to their age. The Ministry of Health stated that the factors that can interfere with growth in the early days of a baby's life include lack of nutrition from the time the baby is born, giving MP-ASI that is not according to the time of its administration, the nutritional content contained in MP-ASI is inadequate and the provision of MP-ASI is not appropriate. age and inadequate parenting patterns (Ilmi Khoiriyah et al., 2021).

LBW (Low Birth Weight)

From Atika's article, it was concluded (*pvalue* = 0.024) that there was a relationship between LBW and *stunting* in toddlers 6-24 months in Purworejo, Central Java (Rakhmahayu et al., 2019). This is in line with Wulandari's research (*p value* = 0.047, OR = 1.672 which states that children with low birth weight have a 1.672 higher risk of *stunting* when associated with babies born with normal weight.

According to Andi, it was obtained (*p -value* = 0.019) with OR = 3.787, meaning that there is a relationship between LBW and *stunting cases* , with babies born weighing < 2,500 grams at risk of 3,787 at risk of *stunting* than babies born weighing > 2,500 grams (Nurlaily et al., 2021). In line with Rizki's research, it was obtained (*pvelue* = 0.043) that low birth weight was associated with *stunting* (Illahi, 2017) . Resty also said (*pvelue* = 0.019) the results of the analysis of the relationship between LBW and the incidence of *stunting* are interrelated (Noflida, Resty., 2020).

The birth weight of the baby is influenced by the nutritional consumption of the mother during pregnancy. LBW can interfere with the growth and development of toddlers. Babies with LBW are at risk of malnutrition, eventually leading to *stunting*. A history of low birth weight who has inadequate nutritional intake, limited health services and is susceptible to infection will increase the risk of developing *stunting* because the growth of toddlers is stunted (Rakhmahayu et al., 2019).

Baby Birth Length

The results of the review obtained 1 article which stated the relationship between the length of the baby's body at birth can cause stunting in children under two in Semarang. With an OR value of 9.063, which means that children with a length of < 48cm are at risk of 9.063 times being *stunted* (Meikawati et al., 2021). Budiman's research stated that (*p -value* = 0.021) a child's body length at birth affects the

occurrence of *stunting*. OR = 4.375 means that toddlers born with a length below normal are 4.375 times more likely to suffer from *stunting* than toddlers who have a high birth length (Budiman et al., 2021).

Birth length is an important factor that can determine a child's development and height. Abnormal birth length has a long-term effect in terms of cognitive abilities, physical disorders, and even socioeconomic disorders (Meikawati et al., 2021). The length of the child's body at birth reflects the development of the baby while still in the form of a fetus. Lack of energy and protein during pregnancy can slow down the growth of the fetus which results in the baby being born with a body length below normal/short (Budiman et al., 2021).

Supplement of Vitamin D

From the results of the literature review, 1 article was found, namely Budiman's research which said (*pvalue* = 0.022) there was a relationship between vitamin D administration and *stunting cases*. Budiman in his research found that children under five who were *stunted had* a lack of vitamin D intake as much as 31.7%. The function of vitamin D in the body is to build and maintain bone growth. Vitamin D has a main function in the form of bone formation through substances containing calcium and phosphorus which are available in the blood to be stored in the process of bone hardening.

From the results of Budiman's research in Tanjung Wangi Village, it was found that the low intake of vitamin D for toddlers in the village occurred because variations in vitamin D sources from food were not met properly (Budiman et al., 2021).

CONCLUSION

From the results of a review of 13 literatures obtained 2 articles related to *stunting* in children under two years old, it was found that the LBW variable that often occurs appears as a variable related to the occurrence of *stunting.* And 11 articles are the incidence of *stunting* in toddlers, the dominant factor influencing the incidence of *stunting* is exclusive breastfeeding. It is evident that the fulfillment of nutrition for pregnant women in Indonesia has not been met adequately and mothers in Indonesia tend to be unable and fully aware of the importance of exclusive breastfeeding for their babies during the first 6 months of the baby's birth.

ETHICAL CONSIDERATIONS

Funding Statement.

The author does not receive assistance in the form of materials and services from any party or organization.

Conflict of Interest Statement

Not there is *conflict of interest*

REFERENCES

Budiman, B., Budiman, B., Budiana, TA, & Pualamsari, L. (2021). Factors Associated with the Incidence of Stunting at 25-59 Months Body in Tanjung Wangi Village, Pataruman Health Center Work Area, West Bandung Regency, 2019. *Aisyah's Journal: Journal of Health Sciences* , *6* (0), 9–14.

Chandrawati, PF, & Sabrina, CW (2021). Relationship between nutritional components in children aged 25-59 months with the incidence of stunting and short stature in Pragaan District, Sumenep Regency. *Saintika Medika* , *17* (1), 27–40.

Divine, RK (2017). *Relationship between family income, birth weight, and birth length with the incidence of* . *3* (1), 1–14.

Ilmi Khoiriyah, H., Dewi Pertiwi, F., & Noor Prastia, T. (2021). Factors Associated with Stunting Incidence in Toddlers Age 24-59 Months in Bantargadung Village, Sukabumi Regency in 2019. *Promoter* , *4* (2), 145. https://doi.org/10.32832/pro.v4i2.5581

Kelly, TPMF (2020).済無 No Title No Title No Title. *Angewandte Chemie International Edition, 6(11), 951–952.* , *17* (1), 240–246.

Meikawati, W., Pertiwi, D., Rahayu, K., & Purwanti, IA (2021). *Low Birth Weight and Maternal Anemia As Stunting Predictors in 12 – 24 Months Ages in the Genuk Health Center, Semarang City Low Birth Weight and Maternal Anemia as Predictors of Stunting in 12 – 24 Months- Old Children in the Genuk Public Heal* .

Nofitasari, A., Islaeli, & Yusnayanti, C. (2021). Determinant Factors in Effort to Prevent Stunting in Toodlers. *Journal of Aisyah: Journal of Health Sciences* , *6* , 5–8. https://doi.org/10.30604/jika.v6iS1.752

Noflida, Resty., F. (2020). Determinants of stunting in toddlers aged 24-59 months in the working area of the Tompe Public Health Center. *Health Sciences* , *12* (2), 187–195.

Nurlaily, A., Fajriani, AT, Kurniati, E., & Juniarli, SE (2021). *Factors Associated with Stunting in Toddlers Age 25-59 Months at the Posyandu at the Bontonyeleng Andi Health Center* . *5* , 61–73.

Nursyamsiyah, Yulida Sobrie, BS (2019). Journal of Nursing Science. *Journal of Chemical Information and Modeling* , *53* (9), 1689–1699.

Oka, IA, Research, A., Fenta, HM, Workie, DL, Zike, DT, Taye, BW, Swain, PK, Elni, E., Julianti, E., Latifah, AM, Purwanti, LE, & Sukamto, FI (2020). Determinant Characteristics of Stunting in Children Aged 24-59 Months in Slum Area, Bontoala District Article history : Received : 27 August 2020 INTRODUCTION nutritional substances and chronic infectious diseases. The incident occurred seca. *Padjadjaran Journal of Nursing* , *8* (3), 404–413.

Rakhmahayu, A., Dewi, YLR, & Murti, B. (2019). Logistic Regression Analysis on the Determinants of Stunting among Children Aged 6-24 Months in Purworejo Regency, Central Java. *Journal of Maternal and Child Health* , *4* (3), 158–169.

Siagian, D., & Amin, S. (2021). *The Relationship of Eating and Exclusive Breast Milk with The Event of Stunting in Toddlers Aged 24-59 Months At The Posyandu of The Teluk Health Center In 2020 Relationship Between Diet And Exclusive Breast Milk With The Incidence Of Stunting In 24-59 Mont Aged* . *7* (2), 1–6.

Sutarto, Adilla Dwi Nur Yadika, RI (2019). *Indonesian Journal of Public Health* . *14* (November), 4–9.

World Health Organization. (2020). World Health Organization . *SELL Journal* , *5* (1), 55.