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History of exclusive breastfeeding, and stunting among toddlers in West Java, Indonesia

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Abstract

Background: Nutritional problems in children are one of the health problems that often occur and require more attention, one of which is stunting. One of the factors causing stunting is exclusive breastfeeding. If breast milk is not given exclusively it will increase the risk.
Purpose: To determine the relationship between exclusive breastfeeding and the incidence of stunting in toddlers.
Method: This research uses a correlational quantitative design with a cross sectional method using secondary data. The research was carried out in July-December 2023, conducted on mothers with toddlers (0-59 months) who lived in Sukamulya Village, Rancaekek District, Bandung Regency. The sample was selected using a total sampling technique of 140 respondents. Data analysis used univariate analysis and bivariate analysis with the Spearman's rho correlation test.
Results: Almost half of the respondents had only completed junior high school namely 69 (49.3%), while almost half of the respondents' monthly income was below the city or district minimum wage namely 93 (66.5%). A total of 112 (80%) toddlers did not experience stunting and the majority of respondents 106 (75.7%) gave their toddlers exclusive breast milk (first six months). The variables exclusive breastfeeding and stunting in this study did not show a significant relationship with p value = 0.897 (>0.05).
Conclusion: There is no relationship between exclusive breastfeeding and the incidence of stunting. This is not in accordance with most studies examining the relationship between exclusive breastfeeding and stunting. However, there are other aspects that may influence the occurrence of stunting but have not been studied in this study, such as family income, maternal education, average duration of illness (especially diarrhea and respiratory tract infections), birth weight, and level of energy intake.
Suggestion: This research can be used as an illustration of the condition of stunted toddlers in the relevant villages so that efforts can be made to reduce the prevalence of stunting. Health services need to develop more effective programs to identify other factors that cause stunting. For future researchers to add more variables that might influence stunting.

Keywords: Exclusive Breastfeeding; Stunting; Toddler.

INTRODUCTION

Nutritional problems in children are a health problem that needs more attention, one of which is stunting. Stunting is a condition where toddlers or children aged 0-59 months have a body length or height that is shorter than their age with a Z-Score value of more than -2 standard deviations set by the World Health Organization (Ministry of Health of the Republic of Indonesia, 2015).

According to WHO, the number of stunted children under five in the world in 2022 will be 148 million (22.3%) or 52% of the 148 million population spread across Asia. Based on national data, the prevalence

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of stunting in Indonesia will decrease in 2022 to reach 21.6%. This is caused by a decrease in the stunting rate from 2021 to 2022 by 2.8% (Ministry of Health of the Republic of Indonesia, 2023). Even though it has decreased, this figure is still considered high enough so that the Indonesian government is targeting that by 2024 the stunting incidence rate will fall to 14%. Based on the Indonesian Nutrition Status Survey, the stunting rate in West Java will reach 20.2% in 2022, West Java Province is ranked 22nd nationally. One of the areas in West Java that has a high stunting rate is Bandung Regency which is ranked 5th with a prevalence of 25%. In 2021 there will be 20.461 toddlers suffering from stunting or 8.85% of stunting cases in Bandung Regency (Annur, 2023).

Many factors influence the occurrence of stunting, one of which is chronic malnutrition and lack of exclusive breastfeeding (Ekholuenetale, Okonji, Nzoputam, & Barrow, 2022). Exclusive breastfeeding is a risk factor for malnutrition in toddlers because if breast milk is not given exclusively, the risk of stunting will increase. In an effort to prevent stunting, children need to be exclusively breastfed and given nutritious food according to their body's needs, taught to live cleanly, exercise, balance energy consumption and nutritional intake and monitor children's growth and development regularly (Sampara, & Saleng, 2022; Indonesian Health Profile Data in 2020 shows that the average rate of exclusive breastfeeding in Indonesia is 66.1%, down compared to the 2019 average of 67.74%. In addition, there are several facts and information that show that 60% of children aged 0-6 months do not receive exclusive breast milk, and 2 out of 3 children aged 0-24 months do not receive complementary foods (Ministry of Health of the Republic of Indonesia, 2022).

In line with research in Bangunsari, Wagir Kidul Village, Pulung Community Health Center working area, totaling 92 respondents aged 1-5 years, the results of the analysis found a relationship between exclusive breastfeeding and the incidence of stunting in toddlers aged 1-5 years. many years. (Latifah, Purwanti, & Sukamto, 2020). This is different from research at the Banjar 1 Community Health Center on 110 respondents aged 12-59 months which found that there was no significant relationship between exclusive breastfeeding and the incidence of stunting (Novayanti, Armini, & Mauliku, 2021). This strengthens the statement that inadequate exclusive breastfeeding can increase the chances of stunting.

Sukamulya Village is located in Rancaekek District, Bandung Regency, which has the second highest number of malnourished children after Bogor Regency and Sukamulya Village, which is a location with a high percentage of stunting in Bandung Regency. Based on preliminary studies that have been carried out, data on the number of stunting incidents that occurred in Hamlet III, Sukamulya Village reached 59 toddlers (29.2%) out of a total of 202 toddlers. These figures still show that the West Java Provincial Government's target to become a Zero Stunting province by 2023 has not been achieved.

Therefore, this village became the focus of research because it is one of the villages in Bandung Regency that still has a high stunting problem. Then there are differences in the results of several studies regarding the relationship between exclusive breastfeeding and the incidence of stunting, thus providing an opportunity for further research so that researchers are interested in conducting research and involving the relationship between exclusive breastfeeding and the incidence of stunting.

RESEARCH METHOD

This research uses a correlational quantitative design with a cross sectional method using secondary data. The research was carried out in July-December 2023, conducted on mothers with toddlers (0-59 months) who lived in Sukamulya Village, Rancaekek District, Bandung Regency. The research sample was selected using a total sampling technique of 140 mothers who had Muslim children under five and were from the Sundanese tribe. There are two variables used, namely exclusive breastfeeding as the independent variable and the incidence of stunting as the dependent variable.

This research instrument uses an environmental modification questionnaire through sanitation, clean water, hygiene and nutrition to prevent stunting. The validity test results show that the calculated r value is ≥ r table so it is declared valid. The reliability test results show a value of 0.763 using Cronbach's Alpha, which means the item has a sufficient reliability value (>0.700), so it can be said to be reliable and the questionnaire is acceptable.

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The data used in this research was collected through the data collection stage directly from mothers with toddlers. The data was then analyzed using univariate analysis to see the frequency and percentage distribution of each variable. Bivariate analysis in this study was used to see the relationship between variables, namely exclusive breastfeeding and the incidence of stunting using the Spearman's rho correlation test. Stunting is measured through secondary data and divided into several categories, namely mild (<-3 SD),moderate (-3 SD to <-2 SD), normal (-2 SD + 3 SD), and severe (>+ 3 SD). The exclusive breastfeeding variable is divided into two categories, namely exclusive breastfeeding for > 6 months and no exclusive breastfeeding for ≤ 6 months.

This research has received ethical approval from the Padjadjaran University Research Ethics Commission with number: 37/UN6.KEP/EC/2023.

RESEARCH RESULTS

Table 1. Distribution of Demographic Characteristics of Respondents (N=140)

Variables	Results
Toddler Age (Mean±SD)(Range)(Month)	(31.471±14.685)(0-59)
0-11	15/10.7
12 - 23	32/22.8
24 - 35	40/28.6
36 - 47	28/20.0
48 - 59	25/17.9
Toddler Gender (n/%)	
Male	65/46.4
Female	75/53.6
Stunting (n/%)	
No Stunting	112/80.0
Stunting	28/20.0
Exclusive Breastfeeding (n/%)	
Yes	106/75.7
No	34/24.3
Mother's Education (n/%)	
Elementary School	41/29.3
Junior High School	69/49.3
Senior High School	25/17.9
College	5/3.5
Marital Status (n/%)	
Married	139/99.3
Widow	1/0.7
Family Income (n/%)	
<Rp. 5.000.000	93/66.5
Rp.5.000.000	45/32.1
> Rp.5.000.000	2/1.4

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Based on Table 1, it is known that the age of most of the respondents' toddlers is in the range of 24-35 months with the number 40 (28.6%) and the majority of toddlers are girls with the number 75 (53.6%). There were 112 (80.0%) toddlers who did not experience stunting and were given exclusive breast milk as many as 106 (75.7%). Nearly half of mothers' education only completed junior high school, namely 69 (49.3%) respondents. The average marital status of 139 respondents (99.3%) was married, while almost all family incomes were below the city or district minimum wage, namely 93 (66.5%).

Table 2. Relationship between Exclusive Breastfeeding and Stunting (N=140)

Variables	Stunting (n=28)	No Stunting (n=112)	p-value
Exclusive breastfeeding (n/%)			
No	14/50.0	20/17.9	*0.897
Yes	14/50.0	92/82.1	

Table 2 explains the correlation analysis of the relationship between exclusive breastfeeding and the incidence of stunting. The significance of the exclusive breastfeeding and stunting variables in this study shows that there is no significant relationship showing a p value = 0.897 or >0.05, the results of which show that there is no significant relationship between exclusive breastfeeding and the incidence of stunting.

DISCUSSION

Breast milk is a liquid that comes out naturally from the mother's breasts and is the most ideal, efficient, cheap and safe food for babies. Exclusive breastfeeding is giving only breast milk without other food and drink to babies until they are 6 months old, except for medicines and vitamins. As many as 24.3% of mothers had reasons for not giving their babies exclusive breast milk for six months, such as insufficient breast milk, not coming out, the baby not wanting to breastfeed, giving formula milk, and the mother's job. Several factors that can influence the success of exclusive breastfeeding are the mother's level of education, knowledge, employment, experience and family support.

Based on the results of toddler demographic data, it can be seen that of the 140 toddlers in this study, the majority were toddlers aged 24-35 months, namely 40 children with a percentage of 28.6%. This is in accordance with research findings in Rwanda, South Africa that the risk of stunting is greater in toddlers aged 24-59 months compared to 0-24 months (Nshimyiryo, Hedt-Gauthier, Mutaganzwa, Kirk, Beck, Ndayisaba, & El-Khatib, 2019) . Research conducted on stunted toddlers in Gianyar Regency, Bali also found that the highest incidence of stunting occurred in toddlers aged 24-35 months (Manggala, Kenwa, Kenwa, Jaya, & Sawitri, 2018). Based on basic health research in 2013, stunting occurs more often at ages 24-59 months than at ages 0-23 months. This happens because toddlers aged 2-3 years or can also be called preschool age tend to experience a slower growth rate compared to those aged 0 - 2 years (Dhamrait, Christian, O'Donnell, & Pereira, 2021; Arsenault, de Romana, Penny, Van Loan, & Brown, 2008). Children at this age also need more nutritional intake to compensate for their higher energy needs and more varied food requirements than children aged 0-2 years (Chouraqui, Turck, Tavoularis, Ferry, & Dupont, 2019; Maharani, Wahyuni, & Fitrianti, 2019).

Stunting is a condition where a child's height is shorter than the average for children his age, namely z-score (-2 SD). In this study, the number of children who did not experience stunting was greater, namely 112 (80%), while the number of children under five who experienced stunting was only 28 (20%). This figure is still relatively high if it is related to the target of West Java Province in 2023 which carries "West Java Zero New Stunting 2023".

The education level of respondents in this study only completed junior high school. This causes a lack of maternal knowledge about breast milk and its benefits, resulting in an increase in mixed feeding. Support is an external factor that cannot be avoided and determines a mother's success in providing exclusive breastfeeding. In addition, breastfeeding mothers' behavior is influenced by the support

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provided by their husbands, family and environment. According to research conducted in Tabanan Regency, it was stated that parity, early initiation of breastfeeding, and good family support were significantly related to exclusive breastfeeding (Subratha, Putra, & Duarsa, 2016).

Based on the results of the correlation test in this study between the two variables, it shows that there is no relationship between exclusive breastfeeding and the incidence of stunting, p-value = 0.897. In line with previous research, the results of bivariate analysis obtained a value of p = 0.536 (p>0.05), meaning that there is no significant relationship between exclusive breastfeeding and the incidence of stunting (Novayanti et al., 2021). This research explains that there is no relationship between these two variables because there are other factors that have a greater influence on the incidence of stunting than exclusive breastfeeding. Other factors are family income and mother's education. Similar statements were also obtained in other studies which stated that exclusive breastfeeding had no effect on the incidence of stunting. Maternal education, income, birth weight, level of energy intake, average duration of illness (especially diarrhea and respiratory tract infections), and level of education are the most dominant indirect factors in the incidence of stunting in Indonesia. However, breast milk is the main source of nutrition for babies, especially in the first six months (Fau, Nasution, & Hadi, 2019; Abeway, Gebremichael, Murugan, Assefa, & Adinew, 2018).

Based on the results of this study, researchers concluded that exclusive breastfeeding is not the main cause of stunting in toddlers. This is possible because the incidence of stunting is not only determined by exclusive breastfeeding, but there are other factors that were not examined in this study. Based on the conceptual framework of the World Health Organization, apart from exclusive breastfeeding, other factors that cause stunting are family and household factors, lack of complementary foods, and infectious diseases (World Health Organization, 2013). Literature results in previous research show that low birth weight, premature birth, short parental status, parental education, history of infection in children, and breastfeeding are factors that may occur and cause stunting in toddlers in Indonesia (Mediani, 2020). According to the Ministry of Health of the Republic of Indonesia, other factors that influence the incidence of stunting besides exclusive breastfeeding are a history of infectious diseases, birth weight, birth length, food availability, nutritional status of pregnant women and the provision of complementary foods for breast milk (Ministry of Health of the Republic of Indonesia, 2015).

Most respondents gave exclusive breastfeeding in the first six months of life. This shows that exclusive breastfeeding behavior is in accordance with the recommendations of the World Health Organization (Dharel, Dhungana, Basnet, Gautam, Dhungana, Dudani, & Bhattarai, 2020). Apart from knowledge, socio-economic, cultural and psychosocial factors can also influence whether or not exclusive breastfeeding is carried out (Masaba, Mmusi-Phetoe, & Mokula, 2021). Apart from these factors of exclusive breastfeeding, education, work, breastfeeding experience, and family support are factors that strengthen breastfeeding behavior (Alfaridh, Azizah, Ramadhaningtyas, Maghfiroh, Emizia, Amaria, & Nurwahyuni, 2021). Based on research results, it shows that stunting is a complex problem because the factors that occur are not only triggered by one thing, but various elements can cause stunting. Therefore, the problem of stunting must receive full attention from the government, health services and society.

CONCLUSION

There is no relationship between exclusive breastfeeding and the incidence of stunting. This is not in accordance with most studies examining the relationship between exclusive breastfeeding and stunting. However, there are other aspects that may influence the occurrence of stunting but have not been studied in this study, such as family income, maternal education, average duration of illness (especially diarrhea and respiratory tract infections), birth weight, and level of energy intake.

SUGGESTION

This research can be used as an illustration of the condition of stunted toddlers in the relevant villages so that efforts can be made to reduce the prevalence of stunting. Health services need to develop more effective programs to identify other factors that cause stunting. For future researchers to add more variables that might influence stunting.

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REFERENCES

Abeway, S., Gebremichael, B., Murugan, R., Assefa, M., & Adinew, Y. M. (2018). Stunting and its determinants among children aged 6–59 months in Northern Ethiopia: A cross-sectional study. *Journal of nutrition and metabolism*, *2018*(1), 1078480.

Alfaridh, A. Y., Azizah, A. N., Ramadhaningtyas, A., Maghfiroh, D. F., Emizia, E., Amaria, H.,& Nurwahyuni, A. (2021). Peningkatan Kesadaran dan Pengetahuan tentang ASI Eksklusif pada Remaja dan Ibu dengan Penyuluhan serta Pembentukan Kader Melalui Komunitas "CITALIA". *Jurnal Pengabdian Kesehatan Masyarakat (Pengmaskesmas)*, *1*(2).

Annur, C. M. (2023). Prevalensi Balita Stunting di Kabupaten Sumedang Tertinggi di Jawa Barat pada 2022. Received from: https://databoks.katadata.co.id/datapublish/2023/02/02/prevalensi-balita-stunting-di-kabupaten-sumedang-tertinggi-di-jawa-barat-pada-2022#:~:text=Menurut%20Survei%20Status%20Gizi%20Indonesia,Barat%20sebesar%2024%2C5%25.

Arsenault, J. E., de Romana, D. L., Penny, M. E., Van Loan, M. D., & Brown, K. H. (2008). Additional zinc delivered in a liquid supplement, but not in a fortified porridge, increased fat-free mass accrual among young Peruvian children with mild-to-moderate stunting. *The Journal of nutrition*, *138*(1), 108-114.

Chouraqui, J. P., Turck, D., Tavoularis, G., Ferry, C., & Dupont, C. (2019). The role of young child formula in ensuring a balanced diet in young children (1–3 years old). *Nutrients*, *11*(9), 2213.

Dhamrait, G. K., Christian, H., O'Donnell, M., & Pereira, G. (2021). Gestational age and child development at school entry. *Scientific reports*, *11*(1), 14522.

Dharel, D., Dhungana, R., Basnet, S., Gautam, S., Dhungana, A., Dudani, R., & Bhattarai, A. (2020). Breastfeeding practices within the first six months of age in mid-western and eastern regions of Nepal: a health facility-based cross-sectional study. *BMC pregnancy and childbirth*, *20*, 1-9.

Ekholuenetale, M., Okonji, O. C., Nzoputam, C. I., & Barrow, A. (2022). Inequalities in the prevalence of stunting, anemia and exclusive breastfeeding among African children. *BMC pediatrics*, *22*(1), 333.

Fau, S. Y., Nasution, Z., & Hadi, A. J. (2019). Faktor Predisposisi Ibu Usia Remaja Terhadap Pemberian ASI Eksklusif pada Bayi di Kecamatan Luahagundre Maniamolo Kabupaten Nias Selatan. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, *2*(3), 165-173.

Kartiningrum, E. D. (2015). Faktor risiko kejadian gizi kurang pada balita di Desa Gayaman Kecamatan Mojoanyar Mojokerto. *Hospital Majapahit (Jurnal Ilmiah Kesehatan Politeknik Kesehatan Majapahit Mojokerto)*, *7*(2).

Latifah, A. M. I., Purwanti, L. E., & Sukamto, F. I. (2020). Hubungan pemberian ASI eksklusif dengan kejadian stunting pada balita 1-5 tahun. *Health Sciences Journal*, *4*(1), 142.

Maharani, M., Wahyuni, S., & Fitrianti, D. (2019). Tingkat pengetahuan dan sikap ibu terkait makanan tambahan dengan status gizi balita di Kecamatan Woyla Barat. *AcTion: Aceh Nutrition Journal*, *4*(2), 81-88.

Manggala, A. K., Kenwa, K. W. M., Kenwa, M. M. L., Jaya, A. A. G. D. P., & Sawitri, A. A. S. (2018). Risk factors of stunting in children aged 24-59 months. *Paediatrica Indonesiana*, *58*(5), 205-12.

Masaba, B. B., Mmusi-Phetoe, R. M., & Mokula, L. L. D. (2021). Factors affecting WHO breastfeeding recommendations in Kenya. *International Journal of Africa Nursing Sciences*, *15*, 100314.

Mediani, H. S. (2020). Predictors of stunting among children under five year of age in Indonesia: a

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scoping review. *Global Journal of Health Science*, *12*(8), 83.

Mediani, H. S., Setyawati, A., Hendrawati, S., Nurhidayah, I., & Firdianty, N. F. (2023). Pengaruh faktor maternal terhadap insidensi stunting pada anak balita di negara berkembang: Narrative. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, *7*(2), 1868-1886.

Ministry of Health of the Republic of Indonesia. (2015). Pendek (Stunting) di Indonesia dan solusinya. Received from: https://repository.badankebijakan.kemkes.go.id/id/eprint/3512/1/Pendek%20(Stunting)%20di%20Indonesia.pdf

Ministry of Health of the Republic of Indonesia. (2022). ASI Eksklusif. Received from: https://yankes.kemkes.go.id/view_artikel/1046/asi-eksklusif

Ministry of Health of the Republic of Indonesia. (2023). Prevalensi Stunting di Indonesia Turun ke 21.6% dari 24.4%. Received from: https://sehatnegeriku.kemkes.go.id/baca/rilis-media/20230125/3142280/prevalensi-stunting-di-indonesia-turun-ke-216-dari-244/

Novayanti, L. H., Armini, N. W., & Mauliku, J. (2021). Hubungan Pemberian ASI Eksklusif dengan Kejadian Stunting pada Balita Umur 12-59 Bulan di Puskesmas Banjar I Tahun 2021. *Jurnal Ilmiah Kebidanan (The Journal Of Midwifery)*, *9*(2), 132-139.

Nshimyiryo, A., Hedt-Gauthier, B., Mutaganzwa, C., Kirk, C. M., Beck, K., Ndayisaba, A., & 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*, 1-10.

Sampara, N., & Saleng, H. (2022). The Effectiveness of the Implementation of Exclusive Breastfeeding on the Measurement of Body Weight and Body Length at 6 months of Age as an Effort to Prevent Stunting. *International Journal Of Health Science*, *2*(1), 13-17.

Subratha, H. F. A., Putra, I. W. G. A. E., & Duarsa, D. P. (2016). Faktor-faktor yang Berhubungan dengan Pemberian ASI Ekslusif pada Ibu Beraktivitas dalam Rumah di Kabupaten Tabanan. *Public Health and Preventive Medicine Archive*, *4*(2), 142-147.

World Health Organization. (2013). *Essential nutrition actions: improving maternal, newborn, infant and young child health and nutrition*. Received from: https://www.who.int/publications/i/item/9789241505550

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