JOURNAL LA MEDIHEALTICO

VOL. 05, ISSUE 06 (1205-1214), 2024
DOI: 10.37899/journallamedihealtico.v5i6.1731

Correlation of Mother's Outlook of Exclusive Breastfeeding and Stunting in Border Area of West-Central Java Province

Irman Permana[1], Dini Norviatin[2], Hasna Nuha Arumtara[3], Faza Nurul Wardhani[4]

[1]*Department of Child Health, RS Waled – Faculty of Medicine, Universitas Swadaya Gunung Jati-Waled Public Hospital, Cirebon, West Java, Indonesia*
[2]*Department of Public Health, Faculty of Medicine, Universitas Swadaya Gunung Jati, Cirebon, West Java, Indonesia*
[2]*Clinical Clerkship Program, Faculty of Medicine, Universitas Swadaya Gunung Jati-Waled Public Hospital, Cirebon, West Java, Indonesia*
[3]*Research Assistant Department of Child Health, RS Waled – Faculty of Medicine, Universitas Swadaya Gunung Jati-Waled Public Hospital, Cirebon, West Java, Indonesia*

**Corresponding Author: Irman Permana*
E-mail: irmanneo2018@gmail.com

Article Info

Article history:
Received 23 October 2024
Received in revised form 6 December 2024
Accepted 16 December 2024

Keywords:
Exclusive Breastfeeding
Outlook of Mother
Stunting

Abstract

Children under five years-old (toddlers) were very vulnerable to malnutrition especially stunting. Special consideration must be given to stunting in children under the age of five, as it has a detrimental impact on their mental and physical development. One of the factors that has been linked to stunting is non-exclusive breastfeeding. Lack of exclusive breast feeding on baby can be caused by poor parenting, especially low maternal's outlook. The aim of the study was to discover the correlation between maternal's outlook and exclusive breastfeeding with the incidence of stunting in toddlers aged 24-59 months in Brebes city, border area of West – Central Java Province. This cross-sectional study was conducted in June 2022 in multiple integrated health service clinics (posyandu) in Kersana district, Brebes. Participants were children between the ages of 24 and 59 months who attended the posyandu and were selected using consecutive sampling. Data was taken using questionnaire and the analytical technique used Spearman correlation test. Most of respondents were aged 31-40 years (53,7%), elementary school education level (47,1%), maternal status (82,4%), and who had daughters (56,5%). The results of the Spearman correlation test showed that there was a significant relationship between the maternal knowledge ($p = 0.000$, $r = -0.886$), and exclusive breastfeeding ($p = 0.000$, $r = -0.661$) with the incidence of stunting. The study concluded that low maternal's outlook and non-exclusive breastfeeding significantly correlated with higher incidence of stunting.

Introduction

Stunting is a long-term nutritional deficiency resulting from inadequate food intake over an extended period, often due to improper feeding practices. This chronic deficiency affects the overall length of the body. The World Health Organization (WHO, 2019) defines stunting as having a Z-score of less than -2 standard deviations for the body height to age ratio (BH/A) or body length to age ratio (BL/A As reported by the Ministry of Health of the Republic of Indonesia in 2019, Indonesia holds the third highest rate of stunting prevalence in the Southeast Asia Regional (SEAR) region. Data from the 2018 Basic Health Research (Riskesdas) showed that 37.2% of toddlers experienced stunting, and by 2018, this had decreased by 6.4% to 30.8%,

placing Indonesia among the top five countries globally for stunting. Brebes is a district in Central Java that has been prioritized for efforts to reduce stunting. This city has unique circumstances due to its location in the Pantura region and its position as a border area between West Java and Central Java. Data from the Brebes District Health Office reported that 2,195 toddlers in Brebes suffered from stunting in 2018, a decrease from 9,241 toddlers in 2017. As of April 2019, the highest number of stunted toddlers in Brebes was in the working area of Kersana Health Center, with 263 stunted toddlers in 2018.

According to the UNICEF Framework (2019), one of the factors contributing to stunting in toddlers is an imbalanced diet, including the absence of exclusive breastfeeding during the first six months of life. Previous studies have shown that the perception of insufficient breast milk is the main cause of failure in providing exclusive breastfeeding (Sari, 2022). Previous studies conducted in the other border area region, found that education, knowledge, attitudes, family support and work are factors that influence the provision of exclusive breastfeeding (Kusumahati, et al. 2023). In addition, many mothers actively work outside the home to find additional sources to meet their living needs, so that exclusive breastfeeding is hampered due to short leave and maternity periods. In the end, working mothers most likely choose to use formula milk. Besides, advances in technology and communication and the intense promotion of formula milk in advertisements (TV) make even housewive mothers assume that giving formula milk makes babies grow up quickly. There also many assumption in the community especially in Pantura region that formula milk can be a substitute for breast milk or even better. (Wulandari & Harahap, 2023).

The prevalence of exclusive breastfeeding in Indonesia continues to be relatively low. As reported by the Ministry of Health, exclusive breastfeeding rates were 30.2% in 2013, rising to 61.33% in 2017. Data from the Brebes District Health Office shows that the rates for exclusive breastfeeding were 26.46% in 2010, 28.77% in 2011, and 32.12% in 2012. These figures indicate that exclusive breastfeeding coverage in Brebes Regency remains very low. Mother's outlook can be a significant obstacle to offering exclusive breastfeeding in Indonesia. Mothers who hold a goof outlook are more inclined to nurture their children effectively, particularly regarding adequate nutrition. Maternal’s outlook is closely related to education, and higher education levels are expected to lead to better knowledge or information about nutrition (Rahmadi et al., 2022; Yuliantini et al., 2023). This is supported by studies by (Naja et al., 2022; Suherlis et al., 2024), which found that the most significant factor in the failure to provide exclusive breastfeeding is the lack of maternal’s outlook, as some mothers do not know about exclusive breastfeeding. Hence, we aimed to investigated the correlation between mothers' knowledge about exclusive breastfeeding and the incidence of stunting in children aged 24-59 months in Brebes City, Border Area West-Central Java Province.

Methods

This cross-sectional observational study was conducted in June 2022 to examine the relationship between a mother's perspective, exclusive breastfeeding, and stunting in children aged 2 to 5 years. Subjects were patients aged 24-59 months at multiple integrated health service clinics (posyandu) under the the primary health care in Kersana, Brebes, Central Java, Indonesia. The nutritional status of children was evaluated using the body height/age (BH/A) index. Those who had infections or chronic conditions during the study period were not included.

Eighty-five children were included by purposive sampling. Information regarding exclusive breastfeeding, maternal age, maternal education, and the sex of the child was gathered through questionnaires. Body height was measured three times with a microtoise that has an accuracy of 0.1cm, and average values were computed. These measurements were taken on the same day or, at most, within three days following the interview. The dependent variable of this study

was stunted nutritional status, while the independent variable was mother's oulook and exclusive breastfeeding. The data were statistically processed using the Spearman correlation test to assess the relationship between the two variables, as well as the correlation coefficient and direction of the relationship using statistical product and service solution (SPSS) 25.0 for Windows, with significance of P<0.05. This study received ethical clearance from the Ethics Committee for Health Research (KEPK) of the Faculty of Medicine, Swadaya Gunung Jati University, with reference number 43/EC/FKUGJ/IV/2022.

Result and Discussion

Univariate Analysis Results

The characteristics of the mothers studied in this research included education, occupation, and age, while the characteristics of the toddlers included gender. As shown in **Table 1**, the majority of the mothers had elementary education (47.1%), were housewives (82.4%), and most were aged 31-40 years (43.5%). In the toddler group, more were female (56.5%) than male.

Table 1. Respondent Characteristics

Characteristic	Frequency (n)	Percentage (%)
Maternal Age		
a. 21-30 Years	36	42,4
b. 31- 40 Years	37	43,5
c. 41-50 Years	12	14,1
Maternal Education		
a. Elementary school	40	47,1
b. Junior high school	21	24,7
c. Senior high school	21	24,7
d. Undergraduate	3	3,5
Occupation		
a. Entrepreneur	11	12,9
b. Housewife	70	82,4
c. Laborer	1	1,2
d. Teacher	1	1,2
e. Farmer	2	2,3
Child Sex		
a. Female	48	56,5
b. Male	37	43,5

Table 2. Mother's Outlook Levels About Exclusive Breastfeeding

Mother's Outlook Level	Frequency (n)	Percentage (%)
Low	20	23,5
Adequate	11	13
Good	54	63,5
Total	**85**	**100,0**

Table 3. Frequency of Exclusive Breastfeeding

Exclusive Breastfeeding	Frequency (n)	Percentage (%)
Yes	65	76,5
No	20	23,5

Total	**85**	**100,0**

Table 4. Stunting Incidence in Toddlers Aged 24-59 Months

Stunting	Frequency (n)	Percentage (%)
Normal	62	72,9
Stunting	23	27,1
Total	**85**	**100,0**

Table 5. Relationship Between Mothers' Outlook Level About Exclusive Breastfeeding and Stunting Incidence in Toddlers Aged 24-59 Months

Mother's Outlook Level	Nutritional Status (H/A)		Total		P value	r
	Stunting	Normal				
	n	n	n	%		
Good	0	54	54	63,5	.000	-.886**
Adequate	3	8	11	13		
Low	20	0	20	23,5		
Total	23	62	85	100		

Table 6. Relationship Between Exclusive Breastfeeding and Stunting Incidence in Toddlers Aged 24-59 Months

Exclusive Breastfeeding	Nutritional Status (H/A)		Total		P value	r
	Stunting	Normal				
	n	n	n	%		
Yes	7	58	65	76,5	.000	-.661**
No	16	4	20	23,5		
Total	**23**	**62**	**85**	**100**		

From Table 2, it is evident that 54 mothers (63.5%) had a good knowledge of exclusive breastfeeding, while the fewest, 11 mothers (13%), had adequate knowledge. Table 3 shows that the majority of mothers, 65 (76.5%), exclusively breastfed their children. In Table 4, most toddlers had normal nutritional status, with 62 (72.9%) in the normal category.

Table 5 shows that stunting was most prevalent among toddlers whose mothers had low knowledge (23.5%), while normal nutritional status was more common among toddlers whose mothers had good knowledge (63.5%). The results of the Spearman correlation test indicated a p-value of 0.000 ($p<0.05$), suggesting a statistically significant association between maternal knowledge and the prevalence of stunting. The correlation coefficient (r) was -0.886, indicating a negative correlation with very strong strength. This suggests that the higher the knowledge level about exclusive breastfeeding, the lower the stunting incidence in toddlers aged 24-59 months in the Kersana Health Center working area.

Table 6 shows that stunting was found in 7 (10.8%) toddlers who had a history of exclusive breastfeeding and in 16 (23.5%) toddlers who did not receive exclusive breastfeeding. The Spearman correlation test results showed a p-value of 0.000 ($p<0.05$), indicating a significant relationship between exclusive breastfeeding and stunting incidence. The correlation coefficient (r) was -0.661, indicating a negative correlation with strong strength. This suggests that the better the provision of exclusive breastfeeding, the lower the stunting incidence in toddlers aged 24-59 months in Brebes city, border area of West – Central Java.

Respondent Characteristics

The results of this study show that most respondents were aged 31-40 years. In line with this study, according to (Ekholuenetale et al., 2022), found that maternal age <20 years or >35 years was significantly related to the incidence of stunting in toddlers. According to the Indonesian Ministry of Health in 2018, the age of pregnant women <20 years or >35 years was very high, influencing on the incidence of stunting under five. At that age, the higher tendency of mothers to give birth to children with low birth weight and affecting the development of infants in toddlerhood, including more susceptible in suffering stunting. Pregnancy >35 years can have the risk of giving birth with various complications, namely stillbirth, preterm pregnancy, intrauterine growth restriction and various chromosomal abnormalities (Gebreegziabher et al., 2023).

Age is one of the factors that influence knowledge. As a person ages, their knowledge tends to increase, but at a certain age, or approaching old age, the ability to retain or recall knowledge may decrease (Wiliyanarti et al., 2022). Age also influences a mother's capability and readiness. A mother's age determines her parenting style and decision-making regarding her child's nutrition, as older mothers may have more experience and maturity in caregiving and feeding decisions (Rachmawati et al., 2022).

This study also found that most respondents had a low level of education (elementary school). The level of education depends on the length of time spent in school. According to a theory, education is one of the internal factors that influence knowledge, as higher education makes it easier for someone to receive information. This education level is related to a mother's ability to absorb information regarding nutrition and health. Low education can make it difficult for mothers to receive nutritional information, and therefore, low knowledge may put their children at risk of stunting (Zahrah & Damayanti, 2023).

The study also showed that most respondents were housewives. Housewives are considered to have more free time to seek information and knowledge about matters related to exclusive breastfeeding. Moreover, housewives are assumed to take care of their children themselves, giving their children more attention, which allows for optimal exclusive breastfeeding compared to working mothers. Working mothers may have less time to pay attention to their toddler's diet. Therefore, both working and non-working mothers should be able to balance their time to ensure their children receive proper nutrition, leading to better child development (Jannah et al., 2023).

Mother's Outlook About Exclusive Breastfeeding and Stunting Incidence

This study found a relationship between mother's outlook about exclusive breastfeeding and the incidence of stunting in toddlers aged 24-59 months in the working area of Kersana Health Center, Brebes Regency. These findings align with the theory that knowledge or cognition is a critical domain in shaping one's actions. According to (Emaniar et al., 2023), behaviors based on knowledge tend to last longer than those not founded on knowledge. A previous study by (Elba et al., 2024; Permaha et al., 2023) showed a significant relationship between mothers' knowledge and stunting incidence in children aged 2-5 years ($p<0.05$). Similarly, research conducted by (Wulandari & Harahap, 2023) indicated that mothers with low knowledge had a 1.644 times higher risk of having stunted toddlers compared to mothers with good knowledge. (Qomah et al., 2024) also found that children classified as stunted were more likely to have mothers with lower knowledge. A lack of knowledge regarding exclusive breastfeeding can impact breastfeeding practices. Several factors that may contribute to poor knowledge about exclusive breastfeeding include insufficient or unclear information and a lack of understanding of the information received (Naufal et al., 2023).

This result was also supported by (Susilawati et al., 2022), which examined the most obvious factor causing the failure of exclusive breastfeeding, namely the knowledge factor; the reason

why mothers did not give exclusive breastfeeding to their babies was mostly 51.35% because mothers did not know about exclusive breastfeeding, 18.92% because mothers work, 16.22% because breast milk does not come out, and 13.51% of mothers feel that their babies are not full if they are only given breast milk.

Maternal's outlook is a key factor in exclusive breastfeeding, as a lack of awareness of its importance may lead mothers to rarely breastfeed and substitute it with formula or prematurely introduce complementary feeding (MPASI) (Febriyona et al., 2024). One of the benefits of exclusive breastfeeding is promoting the baby's growth, especially in height, as calcium from breast milk is absorbed more efficiently than from formula or other substitutes. Consequently, babies who are exclusively breastfed tend to be taller and grow in line with growth curves compared to those fed formula (Mariati et al., 2022). This is consistent with (Rayhana & Amalia, 2021) study on the impact of breastfeeding, immunization, complimentary feeding (MPASI), maternal and child diseases on stunting in toddlers, which showed that toddlers who were not exclusively breastfed had a 0.2 times greater risk of stunting in child aged 24-59 months.

Parenting is closely linked to the mother's level of knowledge, particularly regarding the importance of nutritional intake. Therefore, efforts to increase mothers' knowledge about nutrition are crucial for stunting prevention. The higher the knowledge, the better the family's food security, child-rearing practices, understanding of the right time to introduce breastfeeding, and awareness of the potential impact of nutritional problems on children. Consequently, efforts to enhance maternal knowledge with support from various parties, such as family, community leaders, and health workers, particularly regarding children under 60 months, could include health education sessions or seeking information through social media to help reduce stunting incidence (Tello et al., 2022).

Exclusive Breastfeeding and Stunting Incidence in Toddlers Aged 24-59 Months

This research identified a relationship between exclusive breastfeeding and the occurrence of stunting in toddlers aged 24-59 months in Brebes City, a border region in West-Central Java. The findings align with the research by (Haque et al., 2023), which found a link between exclusive breastfeeding and stunting in young children. The odds ratio was calculated at 6.1, suggesting that toddlers who did not receive exclusive breastfeeding were 6.1 times more likely to suffer from stunting than their exclusively breastfed counterparts This aligns with the findings of (Adila & Yanti, 2023), which indicated that exclusive breastfeeding is linked to stunting in toddlers, with an odds ratio of 11.1. This indicates that toddlers who were not exclusively breastfed had an 11.1 times higher likelihood of facing stunting in comparison to those who were exclusively breastfed.

The duration of breastfeeding is positively associated with a child's height development, showing that longer breastfeeding periods relate to quicker growth, particularly in the second and third years of life. The connection between exclusive breastfeeding and stunting may stem from the nutritional benefits of breast milk, which are absent in infants who are not exclusively breastfed, potentially leading to stunting (Hasni et al., 2023). This association between exclusive breastfeeding and stunting aligns with the idea that a toddler's nutritional well-being is affected by exclusive breastfeeding. A 2022 study in Indramayu, West Java found a significant relationship between exclusive breastfeeding and stunting in children (Aureliyana & Sakinah, 2022). This is proven similar with research by (Nugraheni et al., 2020), which revealed that children between 6 to 24 months who were not exclusively breastfed had a 1.282 times increased likelihood of experiencing stunting, indicating that the history of exclusive breastfeeding is linked to stunting.

Breast milk is the best food for newborns up to 6 months of age, as it contains essential nutrients for the baby's growth and development. All the nutrients needed during the first six months of

life can be provided by breast milk, and it can meet half of the nutritional needs of infants aged 7-12 months. In the second year of life, breast milk provides one-third of the required nutrients (Masitah et al., 2024). Breast milk is rich in macronutrients and micronutrients, including carbohydrates, protein, fat, L-carnitine, vitamin K, vitamin D, vitamin E, vitamin A, folic acid, calcium, magnesium, and phosphorus. The nutrients in breastmilk are absorbed more efficiently by an infant's body compared to formula milk. (Kortmann et al., 2023). The nutrients, whether they are macro or micro, present in breast milk are essential for the linear growth of children. These nutrients can help prevent stunting, particularly vitamin A, zinc, iron, and protein. Vitamin A is involved in protein synthesis, which influences cell growth. Conversely, inadequate vitamin A intake in an infant can lead to growth issues and a weakened immune system. Breast milk not only contains high-value nutrients essential for growth and neural and brain development but also contains immunity-boosting elements that protect babies from infectious diseases (Notarbartolo et al., 2022).

The World Health Organization (2019) identifies exclusive breastfeeding as a beneficial approach to promoting the healthy development of young children. Various studies indicate that infants who are formula-fed may experience greater weight and length increases compared to those who are breastfed; however, this rapid weight gain can lead to overweight conditions in infants (Huang et al., 2018; Nurani et al., 2022). Additionally, formula feeding is discouraged in low- and middle-income countries (LMIC) due to concerns about inadequate sanitation and the related risks of microbial and toxic contamination in the water used to prepare formula (Wondim et al., 2023).

When a baby is born, it is encouraged to seek out the mother's nipple and practice the sucking reflex right away. This helps to create a stronger bond between mother and child, especially during the critical early days (De Onis & Branca, 2016). Furthermore, if breastfeeding is initiated promptly (IMD), it increases the chances of the baby consuming colostrum from the mother, which is crucial for effectively boosting the baby's immunity as they grow (Permatasari & Syafruddin, 2016). Both the World Health Organization and UNICEF advise that IMD should occur within the first hour after birth, with a recommendation for exclusive breastfeeding for 6 months, followed by 2 years of complementary feeding (Bhutta et al., 2020).

Conclusion

The conclusions drawn from this study are that the level of maternal's outlook about exclusive breastfeeding in Brebes, Central Java was categorized as good (63.5%). The stunting incidence in toddlers aged 24-59 months in the Kersana Health Center working area was 27.1%. The study discovered that low maternal's outlook and non-exclusive breastfeeding significantly correlated with higher incidence of stunting.

Further research should explore additional variables that have not yet been examined, involve a larger sample size, and encompass a broader population. Based on our findings, we recommend that healthcare professionals encourage mothers to breastfeed during pregnancy and after childbirth. Mothers should be made aware of the guidelines for breastfeeding from birth until the child is 6 months old, as well as the factors influencing the nutritional well-being of children aged 24-59 months, particularly to prevent stunting. Additionally, both expectant and new mothers should seek knowledge about the nutritional needs of infants and the early signs of stunting to help reduce the risk for their toddlers.

Acknowledgment

We would like to express our gratitude for the cooperation of all parties involved, including Faculty of Medicine, Swadaya Gunung Jati University, the leader and staff of Kersana Health Service, posyandu volunteers, and mothers of children aged 24-59 months who participated in this research.

References

Adila, W. P., & Yanti, R. S. (2023). The relationship of chronic energy deficiency (CED), exclusive breastfeeding, and economic with stunting in Nagari Aua Kuning West Pasaman. *Science Midwifery*, *10*(6), 4471–4480. https://doi.org/10.35335/midwifery.v10i6.1165

Aureliyana, T., & Sakinah, R. K. (2022). The Relationship between Exclusive Breastfeeding and The Incidence of Stunting Toddlers. *Jurnal Riset Kedokteran*, 67–72. https://doi.org/10.29313/jrk.vi.1437

Bhutta, Z. A., Akseer, N., Keats, E. C., Vaivada, T., Baker, S., Horton, S. E., Katz, J., Menon, P., Piwoz, E., & Shekar, M. (2020). How countries can reduce child stunting at scale: lessons from exemplar countries. *The American Journal of Clinical Nutrition*, *112*, 894S-904S. https://doi.org/10.1093/ajcn/nqaa153

De Onis, M., & Branca, F. (2016). Childhood stunting: a global perspective. *Maternal & Child Nutrition*, *12*, 12–26.

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. https://doi.org/10.1186/s12887-022-03395-y

Elba, F., Hassan, H. C., Umar, N. S., & Hilmanto, D. (2024). Mother's knowledge of nutrition and protein intake in stunted children aged 12-36 months in Indonesia. *International Journal of Innovative Research and Scientific Studies*, *7*(1), 56–62. https://doi.org/10.53894/ijirss.v7i1.2418

Emaniar, A. E., Octafania, N. S., Buchori, A. M., Anggraeni, D. A., Widyawati, R. W., Mawardhani, A. Y., Astuti, D. F., Anggrena, R. S., Putri, A. Z., & Roosana, M. R. (2023). Increasing Maternal Knowledge in Preventing Stunting Through Community-Based Nutrition Education. *Advance Sustainable Science Engineering and Technology*, *5*(2), 230205. https://doi.org/10.26877/asset.v5i2.16252

Febriyona, R., Muhamad, Z., & Sali, N. R. (2024). Analysis of Toddler Eating Patterrn on the Incidence of Stunting in the Coastal Ponelo Islands of North Gorontalo District. *Journal La Medihealtico*, *5*(3), 689–691. https://doi.org/10.37899/journallamedihealtico.v5i3.1391

Gebreegziabher, E., Bountogo, M., Sié, A., Zakane, A., Compaoré, G., Ouedraogo, T., Lebas, E., Nyatigo, F., Glymour, M., & Arnold, B. F. (2023). Influence of maternal age on birth and infant outcomes at 6 months: a cohort study with quantitative bias analysis. *International Journal of Epidemiology*, *52*(2), 414–425. https://doi.org/10.1093/ije/dyac236

Haque, M. A., Zaman Wahid, B., Farzana, F. D., Tanvir Ahmed, S. M., Ali, M., Naz, F., Rahman, S. S., Siddiqua, T. J., Faruque, A. S. G., & Choudhury, N. (2023). Influence of the Suchana intervention on exclusive breastfeeding and stunting among children aged under 6 months in the Sylhet region of Bangladesh. *Maternal & Child Nutrition*, *19*(4), e13535. https://doi.org/10.1111/mcn.13535

Hasni, D., Anugrah, N. S., Al Asri, Z., & Jelmila, S. N. (2023). The Relationship Between Exclusive Breastfeeding and the Incidence of Stunting in Toddlers. *Nusantara Hasana Journal*, *3*(7), 161–173. https://doi.org/10.59003/nhj.v3i7.1081

Huang, J., Zhang, Z., Wu, Y., Wang, Y., Wang, J., Zhou, L., Ni, Z., Hao, L., Yang, N., & Yang, X. (2018). Early feeding of larger volumes of formula milk is associated with greater body weight or overweight in later infancy. *Nutrition Journal*, *17*, 1–9.

https://doi.org/10.1186/s12937-018-0322-5

Naja, F., Chatila, A., Ayoub, J. J., Abbas, N., Mahmoud, A., collaborators, M., Abdulmalik, M. A., & Nasreddine, L. (2022). Prenatal breastfeeding knowledge, attitude and intention, and their associations with feeding practices during the first six months of life: a cohort study in Lebanon and Qatar. *International Breastfeeding Journal*, *17*(1), 15. https://doi.org/10.1186/s13006-022-00456-x

Naufal, F. F., Indita, H. R., & Muniroh, L. (2023). The Relationship between Maternal Knowledge and Family Support with Exclusive Breastfeeding. *Amerta Nutrition*, *7*(3). https://doi.org/10.20473/amnt.v7i3.2023.442-448

Notarbartolo, V., Giuffrè, M., Montante, C., Corsello, G., & Carta, M. (2022). Composition of human breast milk microbiota and its role in children's health. *Pediatric Gastroenterology, Hepatology & Nutrition*, *25*(3), 194. https://doi.org/10.5223/pghn.2022.25.3.194

Nugraheni, D., Nuryanto, N., Wijayanti, H. S., Panunggal, B., & Syauqy, A. (2020). Asi Eksklusif Dan Asupan Energi Berhubungan Dengan Kejadian Stunting Pada Usia 6–24 Bulan Di Jawa Tengah. *Journal of Nutrition College*, *9*(2), 106–113. https://doi.org/10.14710/jnc.v9i2.27126

Nurani, N., Wibowo, T., Susilowati, R., Hastuti, J., Julia, M., & Van Weissenbruch, M. M. (2022). Growth of exclusively breastfed small for gestational age term infants in the first six months of life: a prospective cohort study. *BMC Pediatrics*, *22*(1), 73. https://doi.org/10.1186/s12887-021-03080-6

Permaha, O. R., Argarini, D., & Hidayat, R. (2023). The Relationship Between Maternal Knowledge Parenting Patterns and Exclusive Breastfeeding with The Incidence of Stunting in Toddlers in The Work Area of The Urban Health Center Tanjung Priok North Jakarta. *Jurnal Kesehatan Dr. Soebandi*, *11*(2), 139–146. https://doi.org/10.36858/jkds.v11i2.509

Permatasari, T. A. E., & Syafruddin, A. (2016). Early initiation of breastfeeding related to exclusive breastfeeding and breastfeeding duration in rural and urban areas in Subang, West Java, Indonesia. *J Health Res Vol*, *30*(5).

Qomah, I., Tazkiah, M., & Rahmayanti, R. (2024). The relationship between mother's knowledge and the incidence of stunting in toddlers in polindes, mundar village, south labuan amas district, hulu sungai tengah regency in 2024. *Journal of Health Management and Pharmacy Exploration*, *2*(2). https://doi.org/10.52465/johmpe.v2i2.383

Rachmawati, D. A., Indraswari, R. P. C., & Sakinah, E. N. (2022). The correlation between mother's knowledge about complementary feeding with the incidence of stunting in toddlers under two in Mayang, Jember. *Journal of Agromedicine and Medical Sciences*, *8*(2), 85–90. https://doi.org/10.19184/ams.v8i2.25606

Rahmadi, A., Bertalina, B., Sudarmi, S., & Aprina, A. (2022). Education on Nutrition, Sanitation, and IYCF to Increase Mother's Knowledge in Lokus Stunting Village. *Jurnal Aisyah: Jurnal Ilmu Kesehatan*, *7*(2), 639–646. https://doi.org/10.30604/jika.v7i2.890

Rayhana, R., & Amalia, C. N. (2021). Pengaruh pemberian ASI, imunisasi, MP-ASI, penyakit ibu dan anak terhadap kejadian stunting pada balita. *Muhammadiyah Journal of Nutrition and Food Science (MJNF)*, *1*(2), 60–69. https://doi.org/10.24853/mjnf.1.2.60-69

Sari, A. L. (2022). Exclusive breastfeeding as an effort to prevent stunting in toddlers. *NeuroQuantology*, *20*(5), 3668–3675.

Suherlis, S., Sriyanti, R., Meinapuri, M., Ariadi, A., Afdal, A., & Firdawati, F. (2024). The Relationship Between Knowledge, Information Exposure, and Cadre Support with Mothers' Visits for Under-Five Weighing Coverage in the Working Area of Pegambiran Health Center, Padang City, 2024. *Journal La Medihealtico*, *5*(4), 873–879. https://doi.org/10.37899/journallamedihealtico.v5i4.1555

Susilawati, S., Anzani, M. P., & Arifin, R. F. (2022). Husband's Support and Mother's Motivation with Exclusive Breastfeeding in Babies Aged 0–6 Months in Tipar Village, Sukabumi City. *Risenologi*, *7*(1a), 49–55.

Tello, B., Rivadeneira, M. F., Moncayo, A. L., Buitrón, J., Astudillo, F., Estrella, A., & Torres, A. L. (2022). Breastfeeding, feeding practices and stunting in indigenous Ecuadorians under 2 years of age. *International Breastfeeding Journal*, *17*(1), 19. https://doi.org/10.1186/s13006-022-00461-0

Wiliyanarti, P. F., Wulandari, Y., & Nasrullah, D. (2022). Behavior in fulfilling nutritional needs for Indonesian children with stunting: Related culture, family support, and mother's knowledge. *Journal of Public Health Research*, *11*(4), 22799036221139936. https://doi.org/10.1177/22799036221139938

Wondim, A., Techane, M. A., Wubneh, C. A., Assimamaw, N. T., Belay, G. M., Tamir, T. T., Muhye, A. B., Kassie, D. G., Terefe, B., & Tarekegn, B. T. (2023). Major maternal related determinants of non-breastfeeding among mothers in Ethiopia: A multilevel analysis from DHS Ethiopia 2016. *Plos One*, *18*(6), e0286662. https://doi.org/10.1371/journal.pone.0286662

Wulandari, R., & Harahap, Y. Z. (2023). Analysis Mother Knowledge with Risk Stunting Events in the Region Work Public health center Portibi. *International Journal of Public Health Excellence (IJPHE)*, *3*(1), 134–138. https://doi.org/10.55299/ijphe.v3i1.474

Yuliantini, E., Sukiyono, K., Sulistyo, B., & Yuliarso, M. Z. (2023). TheLinkage Between Mother's Knowledge and Stunting Incidence in Coastal House Holds. *Star Shine Medical Journal*, *3*(1).

Zahrah, S. N., & Damayanti, N. A. (2023). The relationship between religious leaders and the knowledge of mothers in reducing stunting: a literature review. *Journal of Public Health in Africa*, *14*(2), 6. https://doi.org/10.13005/bpj/2972