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Factors Influencing Exclusive Breastfeeding Practices In Rural Indonesia: Evidence From Lampung Province

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ABSTRACT

Background: Breast milk is an ideal food for babies. Breast milk has benefits not only for the baby but also for the mother and the environment. However, the exclusive breastfeeding rate in Indonesia and the world is still low.

Purpose: This study aims to find the factors that cause low exclusive breastfeeding in rural areas in Indonesia.

Methods: this study is quantitative research with a cross-sectional approach. The sample involved in this study was 164 mothers who had children aged 0-6 months in 6 villages. The analysis used in this study is bivariate and multivariate.

Results: There was no statistically significant association between mothers' work and exclusive breastfeeding in rural areas. The mother's age and parity are also unrelated to exclusive breastfeeding. Income, education, infant age, first breastfeeding opportunities, delivery methods, and delivery aides contributed 20.1% to exclusive breastfeeding of infants aged 0-6 months in rural areas.

Conclusion: This study is useful to find out the factors related to exclusive breastfeeding in rural areas in Lampung.

Keywords:

Exclusive breastfeeding; rural; characteristic; working mothers; early initiation of breastfeeding.

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BACKGROUND

Breast milk is widely acknowledged as the most ideal food for infants due to its unique composition and nutritional profile (Laursen et al., 2021; Sánchez et al., 2021). It contains essential components such as lactoferrin, immunoglobulins, leukocytes, and microbiomes that play critical roles in building infant immunity and supporting physiological development (Cavaletto et al., 2022; Melekoglu et al., 2023). Exclusive breastfeeding is strongly recommended by the World Health Organization (WHO), as it supports optimal growth, development, and cognitive outcomes in infants (Durá-Travé & Gallinas-Victoriano, 2023; Obonyo et al., 2023).

Despite its well-documented benefits-including reduced risk of infant morbidity and mortality, enhanced maternal health, and substantial economic advantages (Gebrekidan et al., 2021; Jacobzon et al., 2022; Khasawneh et al., 2020; Ricci et al., 2023) - exclusive breastfeeding practices remain suboptimal in many countries. In Indonesia, for example, the prevalence of exclusive breastfeeding in the first 6 months is only 53.6% and has shown a declining trend between 2013 and 2018 (Idris & Astari, 2023) (Permatasari & Sudiartini, 2020). This indicates persistent public health challenges despite ongoing national breastfeeding campaigns. A growing body of research has identified several interrelated factors influencing exclusive breastfeeding. These can be broadly categorized into individual, social, and systemic factors.

Individual factors include maternal education, breastfeeding knowledge, health status, and self-efficacy, all of which are positively associated with exclusive breastfeeding (Ricci et al., 2023) (Shi et al., 2021). Additionally, obstetric variables such as antenatal care (ANC) visits, spontaneous vaginal delivery, and prior breastfeeding experience also enhance the likelihood of exclusive breastfeeding (F. Li et al., 2023; Titaley et al., 2023).

Social and environmental factors include family and peer support, cultural beliefs, and workplace conditions. For instance, women who receive support from supervisors and colleagues are more likely to continue breastfeeding upon returning to work (Dutheil et al., 2021; Kang et al., 2015).. Conversely, maternal employment, lack of breastfeeding-friendly environments, and cesarean deliveries are consistently reported as barriers (Titaley C et al., 2021; Ickes et al., 2021).

Interestingly, urban and rural contexts offer contrasting breastfeeding dynamics. Women in urban areas, often with higher socioeconomic status, may have better access to information but also greater exposure to formula marketing and time constraints due to employment (Paramashanti et al., 2023). In contrast, rural women often face barriers related to traditional beliefs and lower healthcare access practices (Egata et al., 2013; Singh et al., 2024).

Although studies have explored breastfeeding behaviors in Indonesia, much of the literature either generalizes findings across urban and rural settings or focuses predominantly on urban populations. Only a few studies have directly investigated

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breastfeeding practices in rural Indonesian communities. These studies reveal mixed findings: for example, (Gayatri, 2021) highlights employment and cesarean delivery as significant barriers, while Paramashanti et al., (2023) report inconsistent associations between social status and exclusive breastfeeding in rural areas.

Moreover, research from other low- and middle-income countries (e.g., Ethiopia, Nepal) suggests that rural-specific cultural practices—such as discarding colostrum or limited health-seeking behavior—also impact breastfeeding practices (Egata et al., 2013; Singh et al., 2024). However, similar culturally rooted influences in rural Indonesia remain underexplored.

While previous studies have outlined numerous factors affecting exclusive breastfeeding, there is a lack of in-depth exploration into how **rural-specific sociocultural, health system, and household dynamics** interact to influence maternal decision-making in Indonesia. Additionally, **limited attention has been paid to the nuanced interplay between maternal autonomy, social support structures, and local health messaging** within these rural settings. This study addresses this gap by focusing specifically on exclusive breastfeeding in rural Indonesia, aiming to uncover the context-specific determinants and inform more targeted interventions.

OBJECTIVE

This research is important because there is still a lack of literacy about the characteristics of breastfeeding mothers in rural areas with the success of exclusive breastfeeding. This research was conducted in 6 villages in Lampung, Indonesia. The purpose of this study is to identify the elements that facilitate or obstruct the success of exclusive breastfeeding in rural regions.

METHODS

This research employs a quantitative methodology with a cross-sectional design. The study engaged 165 mothers with children aged 0 to 6 months from various villages in Lampung Province, Indonesia, including Gaya Baru Village (Central Lampung), Margodadi Village (Pesawaran), Podomoro Village (Pringsewu), West Hadimulyo Village (Metro), Senuli Jaya Village (North Lampung), and Tanggamus.

Sampling Method: Respondents were chosen through purposive sampling, focusing on mothers with infants aged 0–6 months who satisfied particular inclusion criteria, including a willingness to participate and the capability to communicate clearly during the interview. Sample Size Determination: A sample size of 165 was calculated using the formula for estimating sample size in cross-sectional studies concerning proportions : $n = z^2 \cdot p \cdot (1-p) / d^2$. Where Z is the Z -value at 95% confidence level (1.96), p is the estimated prevalence of exclusive breastfeeding (assumed at 0.50 for maximum variability), and d is the margin of error (0.08). This yields a minimum required sample of approximately

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150 respondents. An additional 10% was added to account for potential non-response, resulting in a final sample size of 165.

This research instrument used a structured questionnaire to collect respondent characteristics. Univariate analysis was conducted to describe the demographic and socioeconomic characteristics of the respondents. Bivariate analysis (chi-square test) was used to assess the relationship between independent variables and exclusive breastfeeding status.

To identify variables that significantly influenced exclusive breastfeeding, binary logistic regression was employed instead of multiple linear regression, considering that exclusive breastfeeding is a binary outcome variable (yes/no). Logistic regression is statistically more appropriate for dichotomous outcomes and allows for the estimation of adjusted odds ratios (AORs) with 95% confidence intervals (CIs).

RESULTS

This study was conducted between May-June 2024 by local midwives. The midwives submitted a research request to the respondents, and for respondents who agreed, the respondents provided their data to the midwife who acted as the enumerator.

Table 1. Overview of Breastfeeding for Babies Aged 0-6 Months in Rural Areas

Variable	Non-Exclusive Breastfeeding	Exclusive Breastfeeding
Breastfeeding babies	68 (41%)	96 (59%)

According to the information presented, the rate of exclusive breastfeeding for infants aged 0-6 months stands at only 59%.

Table 2. The Relationship of Characteristics of Mothers with Children Less Than 6 Months of Age in Rural Areas in Indonesia to Breastfeeding

Variable	n	Breastfeeding Babies		r	P-value
		Non-Exclusive Breastfeeding	Exclusive Breastfeeding		
Mother's age				1,209	0,546
<20 years	19 (11,6%)	10 (6,1%)	9 (5,5%)		
20-35 years	129 (78,7%)	51 (31,1%)	78 (47,6%)		
>35 years	16 (9,8%)	7 (4,3%)	9 (5,5%)		
income				15,610	< 0,001*
< Rp. 2.000.000,00	90 (54,9%)	48 (29,3%)	42 (25,6%)		

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Rp. 2.000.000,00 -Rp. 5.000.000,00	63 (38,4%)	14 (8,5%)	49 (29,9%)		
Rp. 5.000.000,00	11 (6,7%)	6 (3,7%)	5 (3%)		
Education				15,689	0,001*
Elementary School	21 (12,8%)	14 (8,5%)	7 (4,3%)		
Junior High School	36 (22%)	20 (12,2%)	16 (9,8%)		
Senior High School	84 (51,2%)	23 (14,0)	61 (37,2%)		
Higher Education	23 (14%)	11 (6,7%)	12 (7,3%)		
Employment				3,527	0,060
work	89 (54,3%)	31 (18,9%)	58 (35,4%)		
Not working	75 (45,7%)	37 (22,6%)	38 (23,2%)		
Baby's age					
1 month	19 (11,6%)	6 (3,7%)	13 (7,9%)	11,722	0,020*
2 month	37 (22,6%)	11 (6,7%)	26 (15,9%)		
3 month	38 (23,2%)	12 (7,3%)	26 (15,9%)		
4 month	35 (21,3%)	17 (10,4%)	18 (11%)		
5 month	35 (21,3%)	22 (13,4%)	13 (7,9%)		
Parity				3,668	0,160
Primipara	64 (39%)	27 (16,5%)	37 (22,6%)		
Multipara	95 (57%)	41 (25%)	54 (32,9%)		
Grande Multipara	5 (3%)	0	5 (3%)		
First Breastfeeding Opportunity				8,432	0,004*
< 1 hour	54 (32,9%)	31 (18,9%)	23 (14,0)		
>1 hour	110 (67,1%)	37 (22,6%)	73 (44,5%)		
Giving birth				4,507	0,034*
Sectio Secarea	35 (21,3%)	20 (12,2%)	15 (9,1%)		
Pervaginam	129 (78,7%)	48 (29,3%)	81 (49,4%)		
Birth assist				6,778	0,034*
Herbalist	2 (1,2%)	2 (1,2%)	0		
Midwives	119 (72,6%)	43 (26,2%)	76 (46,3%)		
Doctor	43 (26,2%)	23 (14%)	20 (12,2%)		

Table 2 above shows that the mother's age is the most in the range of 20-35 years. This age is a healthy reproductive age that reduces the risk of pregnancy and childbirth. The majority of family income (54.9%) is below Rp. 2,000,000.00 or around 122 USD (February 2025). The majority of education is high school (51.2%). 54.3% of mothers in rural areas are working. The majority of babies are 3 months old. The most maternal status is multipara (57%), and the most breastfeeding opportunities are more than the first 1 hour. The most common way of delivery is vaginal (78.7%). Moreover, most childbirth assistants are midwives (72.6%).

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From Table 1. The variables related to exclusive breastfeeding were income ($P < 0.001$), education ($P < 0.001$), infant age ($P < 0.02$) with negative values, the older the baby, the more likely the food obtained is not exclusive breastfeeding), the first breastfeeding opportunity ($P < 0.004$), the way of delivery ($p < 0.034$), and the helper ($P < 0.034$) of childbirth. While the age variable, parity work is not related to exclusive breastfeeding.

Table 3. Early and late modelling of the effect of maternal characteristics on breastfeeding in infants 0-6 months in rural areas

variable	B	t	P-value	R	R square
Breastfeeding (constant)		1,661	0,099	0,448	0,201
for babies 0-6 months					
Income	0,165	2,252	0,26		
education	0,228	3,086	0,002		
Baby's age	-0,249	-3,380	<0,001		
First breastfeeding opportunity	0,231	3,085	0,002		
Giving birth	0,078	0,775	0,439		
Birth assist	0,010	0,90	0,928		

From the multiple regression test results above, the results of income variables, education, infant age, breastfeeding opportunity, mode of delivery, and delivery assistants contributed to the possibility of mothers breastfeeding exclusively by 20.1%. In comparison, as many as 79.9% are other factors not studied in this study.

DISCUSSION

This study found that 59% of mothers practiced exclusive breastfeeding, a figure still below the national target of 80%. Despite improvements over time, the rate remains a public health concern, consistent with data from various countries (Boateng et al., 2018; Diaz et al., 2023; Obonyo et al., 2023; Virdausi et al., 2022). Lack of exclusive breastfeeding is known to increase the risk of stunting, infections, allergies, and long-term metabolic conditions in children (Hadi et al., 2021; Handayani et al., 2013; Melekoglu et al., 2023; Prentice, 2022).

Socioeconomic Factors : One of the most significant findings in this study is the strong association between family income and exclusive breastfeeding practices ($P < 0.001$).

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Families earning less than Rp. 2,000,000 per month showed the lowest rates of exclusive breastfeeding. This finding suggests that low-income families may perceive breastmilk as inadequate or may lack nutritional support for the mother, impacting milk production. In contrast, families with moderate income levels (Rp. 2,000,000–Rp. 5,000,000) had higher rates of exclusive breastfeeding, likely due to better access to food and maternal health support. Interestingly, in higher-income families (> Rp. 5,000,000), the prevalence of exclusive breastfeeding declined again, possibly influenced by exposure to formula marketing and greater purchasing power. These results underscore the complexity of economic status as both a constraint and enabler, depending on context and knowledge levels (Agampodi et al., 2021; Prentice, 2022).

Maternal education, though not explicitly discussed in the results section, often correlates with exclusive breastfeeding success. Prior studies suggest that higher education increases awareness and acceptance of exclusive breastfeeding practices. Targeted health promotion efforts should consider these socioeconomic disparities and aim to improve access to breastfeeding education among lower-income and less-educated groups (Agampodi et al., 2021; Ekholuenetale et al., 2021; Titaly C et al., 2021).

Delivery-Related Factors : This study showed that **mode of delivery** significantly influences breastfeeding outcomes. Mothers who underwent normal vaginal delivery were more likely to exclusively breastfeed ($P = 0.034$), consistent with previous studies (L. Li et al., 2022). Vaginal delivery facilitates early initiation of breastfeeding due to immediate skin-to-skin contact and faster hormonal response. In contrast, cesarean deliveries often delay first breastfeeding due to post-operative recovery and separation between mother and child (Prentice, 2022; Ulfa et al., 2023). Moreover, the role of **birth attendants** was also highlighted. Mothers assisted by non-health workers showed lower rates of exclusive breastfeeding, possibly due to lack of breastfeeding knowledge or support. This suggests a need to improve community-level awareness and training for birth assistants, especially in rural areas (Ickes et al., 2021; Rumakur et al., 2023). The most striking delivery-related predictor was **early initiation of breastfeeding** ($P = 0.004$). Breastfeeding within the first hour of life has been widely recognized to improve breastfeeding success and establish maternal-infant bonding (Finnie et al., 2020; Ulfa et al., 2023). This underscores the importance of antenatal education that prepares mothers for immediate postnatal practices regardless of delivery mode.

Cultural Implications : In rural Indonesian communities, cultural factors also play a role in shaping breastfeeding practices. For instance, although maternal age and parity were not significantly associated with exclusive breastfeeding in this study, the shared childcare experience in rural societies may offset the impact of personal experience. Mothers often rely on communal wisdom, making it essential to involve community leaders and elder women in breastfeeding promotion programs (Gayatri, 2021).

Additionally, the lack of association between maternal employment and breastfeeding in

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this rural setting ($P = 0.060$) deviates from findings in urban areas. Rural jobs tend to offer more flexible hours and proximity to home, enabling continued breastfeeding. This suggests that breastfeeding interventions should be context-specific, acknowledging cultural norms and occupational dynamics.

Study Limitations and Potential Confounders : As a **cross-sectional study**, this research cannot establish causality. Observed associations may be influenced by unmeasured confounders such as maternal mental health, social support, or exposure to breastfeeding promotion. There is also the risk of **recall bias**, particularly in self-reported data on breastfeeding duration and timing of initiation. Future longitudinal or interventional studies are needed to better understand the causal pathways and evaluate targeted interventions.

CONCLUSION

This study found that the achievement of exclusive breastfeeding in rural areas in Indonesia is still low. Employment in mothers living in rural areas is not associated with the success of exclusive breastfeeding. Early initiation of breastfeeding and childbirth aids are variables that can be changed to increase the success of exclusive breastfeeding. This study contributes to the factors that affect exclusive breastfeeding in infants under 6 months of age. Further research is still needed on what can be done to increase the success of exclusive breastfeeding.

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REFERENCES

- Agampodi, T. C., Dharmasoma, N. K., Koralagedara, I. S., Dissanayaka, T., Warnasekara, J., Agampodi, S. B., & Perez-Escamilla, R. (2021). Barriers for early initiation and exclusive breastfeeding up to six months in predominantly rural Sri Lanka: a need to strengthen policy implementation. *International Breastfeeding Journal*, *16*(1), 1–12. <https://doi.org/10.1186/s13006-021-00378-0>
- Boateng, G. O., Martin, S. L., Collins, S. M., Natamba, B. K., & Young, S. L. (2018). Measuring exclusive breastfeeding social support: Scale development and validation in Uganda. *Maternal and Child Nutrition*, *14*(3), 1–12. <https://doi.org/10.1111/mcn.12579>
- Cavaletto, M., Givonetti, A., & Cattaneo, C. (2022). The Immunological Role of Milk Fat Globule Membrane. *Nutrients*, *14*(21), 1–14.

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<https://doi.org/10.3390/nu14214574>

- Diaz, L. E., Yee, L. M., & Feinglass, J. (2023). Rates of breastfeeding initiation and duration in the United States: data insights from the 2016–2019 Pregnancy Risk Assessment Monitoring System. *Frontiers in Public Health*, 11(December), 1–9. <https://doi.org/10.3389/fpubh.2023.1256432>
- Durá-Travé, T., & Gallinas-Victoriano, F. (2023). Pregnancy, Breastfeeding, and Vitamin D. *International Journal of Molecular Sciences*, 24(15), 1–12. <https://doi.org/10.3390/ijms241511881>
- Dutheil, F., Méchin, G., Vorilhon, P., Benson, A. C., Bottet, A., Clinchamps, M., Barasinski, C., & Navel, V. (2021). Breastfeeding after returning to work: A systematic review and meta-analysis. *International Journal of Environmental Research and Public Health*, 18(16), 1–21. <https://doi.org/10.3390/ijerph18168631>
- Egata, G., Berhane, Y., & Worku, A. (2013). Predictors of non-exclusive breastfeeding at 6 months among rural mothers in east Ethiopia: A community-based analytical cross-sectional study. *International Breastfeeding Journal*, 8(1), 1. <https://doi.org/10.1186/1746-4358-8-8>
- Ekholuenetale, M., Mistry, S. K., Chimoriya, R., Nash, S., Doyizode, A. M., & Arora, A. (2021). Socioeconomic inequalities in early initiation and exclusive breastfeeding practices in Bangladesh: findings from the 2018 demographic and health survey. *International Breastfeeding Journal*, 16(1), 1–18. <https://doi.org/10.1186/s13006-021-00420-1>
- Finnie, S., Pérez-Escamilla, R., & Buccini, G. (2020). Determinants of early breastfeeding initiation and exclusive breastfeeding in Colombia. *Public Health Nutrition*, 23(3), 496–505. <https://doi.org/10.1017/S1368980019002180>
- Gayatri, M. (2021). Exclusive Breastfeeding Practice in Indonesia: A Population-Based Study. *Korean Journal of Family Medicine*, 42(5), 395–402. <https://doi.org/10.4082/kjfm.20.0131>
- Gebrekidan, K., Hall, H., Plummer, V., & Fooladi, E. (2021). Exclusive breastfeeding continuation and associated factors among employed women in North Ethiopia: A cross-sectional study. *PLoS ONE*, 16(7 July), 1–16. <https://doi.org/10.1371/journal.pone.0252445>
- Hadi, H., Fatimatasari, F., Irwanti, W., Kusuma, C., Alfiana, R. D., Ischaq Nabil

Women, Midwives, and Midwifery

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- Asshiddiqi, M., Nugroho, S., Lewis, E. C., & Gittelsohn, J. (2021). Exclusive breastfeeding protects young children from stunting in a low-income population: A study from eastern indonesia. *Nutrients*, *13*(12), 1–14. <https://doi.org/10.3390/nu13124264>
- Handayani, L., Kosnin, A. M., Jiar, Y. K., & Solikhah, . (2013). Translation and Validation of Breastfeeding Self-Efficacy Scale-Short Form (BSES-SF) into Indonesian: a Pilot Study. *Jurnal Kesehatan Masyarakat (Journal of Public Health)*, *7*(1), 21–26. <https://doi.org/10.12928/kesmas.v7i1.1023>
- Ickes, S. B., Sanders, H., Denno, D. M., Myhre, J. A., Kinyua, J., Singa, B., Lemein, H. S., Iannotti, L. L., Farquhar, C., Walson, J. L., & Nduati, R. (2021). Exclusive breastfeeding among working mothers in Kenya: Perspectives from women, families and employers. *Maternal and Child Nutrition*, *17*(4), 1–14. <https://doi.org/10.1111/mcn.13194>
- Idris, H., & Astari, D. W. (2023). The practice of exclusive breastfeeding by region in Indonesia. *Public Health*, *217*, 181–189. <https://doi.org/10.1016/j.puhe.2023.02.002>
- Jacobzon, A., Engström, Å., Lindberg, B., & Gustafsson, S. R. (2022). Mothers' strategies for creating positive breastfeeding experiences: a critical incident study from Northern Sweden. *International Breastfeeding Journal*, *17*(1), 1–9. <https://doi.org/10.1186/s13006-022-00474-9>
- Kang, N. M., Choi, Y. J., Hyun, T., & Lee, J. E. (2015). Associations of breastfeeding knowledge, attitude and interest with breastfeeding duration: A cross-sectional web-based study. *Journal of Korean Academy of Nursing*, *45*(3), 449–458. <https://doi.org/10.4040/jkan.2015.45.3.449>
- Khasawneh, W., Kheirallah, K., Mazin, M., & Abdunabi, S. (2020). Knowledge, attitude, motivation and planning of breastfeeding: A cross-sectional study among Jordanian women. *International Breastfeeding Journal*, *15*(1), 1–9. <https://doi.org/10.1186/s13006-020-00303-x>
- Laursen, M. F., Sakanaka, M., von Burg, N., Mörbe, U., Andersen, D., Moll, J. M., Pekmez, C. T., Rivollier, A., Michaelsen, K. F., Mølgaard, C., Lind, M. V., Dragsted, L. O., Katayama, T., Frandsen, H. L., Vinggaard, A. M., Bahl, M. I., Brix, S., Agace, W., Licht, T. R., & Roager, H. M. (2021). Bifidobacterium species associated with breastfeeding produce aromatic lactic acids in the infant gut. *Nature Microbiology*, *6*(11), 1367–1382. <https://doi.org/10.1038/s41564-021-00970-4>

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- Li, F., Huang, C., Lin, Q., Xi, Y., Xiang, C., Yong, C., & Deng, J. (2023). Maternal Characteristics, Intention, Self-Efficacy, Perceived Social Support, and Exclusive Breastfeeding Practice: Structural Equation Modeling Approaches. *Healthcare (Switzerland)*, *11*(1). <https://doi.org/10.3390/healthcare11010087>
- Li, L., Wu, Y., Wang, Q., Du, Y., Friesen, D., Guo, Y., Dill, S. E., Medina, A., Rozelle, S., & Zhou, H. (2022). Determinants of breastfeeding self-efficacy among postpartum women in rural China: A cross-sectional study. *PLoS ONE*, *17*(4 April), 1–18. <https://doi.org/10.1371/journal.pone.0266273>
- Melekoglu, E., Yılmaz, B., Cxevik, A., Sürücü, S. G., Vurgeç, B. A., Gözüyesxil, E., Sharma, H., Boyan, N., & Ozogul, F. (2023). The Impact of the Human Milk Microbiota in the Prevention of Disease and Infant Health. *Breastfeeding Medicine*, *18*(6), 413–430. <https://doi.org/10.1089/bfm.2022.0292>
- Obonyo, G., Nyongesa, V., Duffy, M., Kathono, J., Nyamai, D., Mwaniga, S., Yator, O., Levy, M., Lai, J., & Kumar, M. (2023). Diverse policy maker perspectives on the mental health of pregnant and parenting adolescent girls in Kenya: Considerations for comprehensive, adolescent-centered policies and programs. *PLOS Global Public Health*, *3*(6), 1–22. <https://doi.org/10.1371/journal.pgph.0000722>
- Paramashanti, B. A., Dibley, M. J., Huda, T. M., Prabandari, Y. S., & Alam, N. A. (2023). Factors influencing breastfeeding continuation and formula feeding beyond six months in rural and urban households in Indonesia: a qualitative investigation. *International Breastfeeding Journal*, *18*(1), 1–12. <https://doi.org/10.1186/s13006-023-00586-w>
- Permatasari, T. A. E., & Sudiartini, N. W. (2020). Do Health Workers Play a Role in Exclusive Breastfeeding among Working Mothers in Industrial Area? *Journal of Nutritional Science and Vitaminology*, *66*(Supplement), S94–S98. <https://doi.org/10.3177/jnsv.66.S94>
- Prentice, A. M. (2022). Breastfeeding in the Modern World. *Annals of Nutrition and Metabolism*, *78*(suppl 2), 29–38. <https://doi.org/10.1159/000524354>
- Ricci, C., Otterman, V., Bennett, T. L., Metcalfe, S., Darling, E., Semenic, S., & Dzakpasu, S. (2023). Rates of and factors associated with exclusive and any breastfeeding at six months in Canada: an analysis of population-based cross-sectional data. *BMC Pregnancy and Childbirth*, *23*(1), 1–11. <https://doi.org/10.1186/s12884-023-05382-2>

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- Rumakur, S., Alwy Arifin, M., Darmawansyah, Balqis, Naiem, F., Suriah, Mallongi, A., & Abadi, M. Y. (2023). Analysis of Factors Affecting Exclusive Breast Milk in The Work Area of Waru Puskesmas East Seram Regency. *Pharmacognosy Journal*, 15(5), 846–850. <https://doi.org/10.5530/pj.2023.15.162>
- Sánchez, C., Franco, L., Regal, P., Lamas, A., Cepeda, A., & Fente, C. (2021). Breast milk: A source of functional compounds with potential application in nutrition and therapy. *Nutrients*, 13(3), 1–34. <https://doi.org/10.3390/nu13031026>
- Shi, H., Yang, Y., Yin, X., Li, J., Fang, J., & Wang, X. (2021). Determinants of exclusive breastfeeding for the first six months in China: a cross-sectional study. *International Breastfeeding Journal*, 16(1), 1–12. <https://doi.org/10.1186/s13006-021-00388-y>
- Singh, B. K., Khatri, R. B., Sahani, S. K., & Khanal, V. (2024). Determinants of exclusive breastfeeding among infants under six months in Nepal: multilevel analysis of nationally representative household survey data. *BMC Public Health*, 24(1). <https://doi.org/10.1186/s12889-024-19963-z>
- Titaley, C. R., Wijayanti, R. U., Mu'asyaroh, A., & Ariawan, I. (2023). The multiple factors of suboptimal early feeding practices among infants aged 0–5 months in Indonesia. *Frontiers in Nutrition*, 10(March). <https://doi.org/10.3389/fnut.2023.1080727>
- Titaley C, Dibley M, Ariawan I, Mu'asyaroh A, & Alam A. (2021). Determinants of low breastfeeding self-efficacy amongst mothers of children aged less than six months: results from the BADUTA study in East Java, Indonesia. *International Breastfeeding Journal* [revista en Internet] 2021 [acceso 20 de noviembre de 2023]; *International Breastfeeding Journal*, 5, 1–15.
- Ulfa, Y., Maruyama, N., Igarashi, Y., & Horiuchi, S. (2023). Early initiation of breastfeeding up to six months among mothers after cesarean section or vaginal birth: A scoping review. *Heliyon*, 9(6), e16235. <https://doi.org/10.1016/j.heliyon.2023.e16235>
- Virdausi, F. D., Efendi, F., Kusumaningrum, T., Adnani, Q. E. S., McKenna, L., Ramadhan, K., & Susanti, I. A. (2022). Socio-Economic and Demographic Factors Associated with Knowledge and Attitude of HIV/AIDS among Women Aged 15–49 Years Old in Indonesia. *Healthcare (Switzerland)*, 10(8). <https://doi.org/10.3390/healthcare10081545>