

Factors Associated with Exclusive Breastfeeding at the Bulili Health Center, South Bureaubuli Village, Palu City

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ABSTRACT

Exclusive breastfeeding is the best nutrient for babies. The impacts of not receiving exclusive breastfeeding are infection, high risk of infectious diseases such as diarrhea and pneumonia, low immune system, and decreased brain development. breastfeeding reduces baby and toddler morbidity and mortality. Human milk glycans, which contain oligosaccharides in both their free and conjugated forms, are demonstrated in studies to be a component of a natural immune process that explains how human milk protects breastfed children from diarrheal illness. This study aims to analyze factors associated with exclusive breastfeeding in the work area of Bulili Public Health Center South Birobuli Subdistrict Palu. This quantitative research was conducted through a cross-sectional approach. This study involved 90 mothers with babies aged 7-12 months, which was carried out from March 2023. The sample was selected using simple random sampling based on inclusion criteria. Direct interviews were used to collect primary data, and secondary data were obtained from Indonesia's health profile, data from the Palu City Health Office 2021, and data on exclusive breastfeeding. The data were processed using the chi-square statistical test with a significance degree of $\alpha = 0.05$. The results of the study were knowledge ($p=0.018$), attitude ($p=0.001$), interest in formula milk promotion ($p=0.018$), and family support ($p=0,002$). In Conclusion, there is a significant association between knowledge, attitude, interest in formula milk promotion, and family support with exclusive breastfeeding practice. It is suggested for mothers to increase knowledge, attitude, and family support by gaining information and using social media appropriately.

Keywords: *Exclusive Breastfeeding, Knowledge, Behaviour, Interest on Formula Milk Promotion, Family Support*

<https://doi.org/10.33860/jik.v17i3.2907>



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INTRODUCTION

According to ¹, breast milk is the

greatest meal for newborns 0 to 6 months old. The protective elements and nutrients in breast milk guarantee a healthy nutritional status and

lower the child's morbidity and mortality rates². According to several epidemiological research, breastfeeding shields young children and newborns from infectious disorders such as acute respiratory infections and diarrhea³⁴. Despite being vital to a baby's development, exclusive breastfeeding is still not widely practiced. Due to a number of variables that differ by region, exclusive breastfeeding is prone to fluctuation⁵.

Mothers are impacted by the complicated event of pregnancy and delivery. Physical and psychological difficulties can result from a variety of changes. Postpartum blues, a type of depression brought on by these changes, can develop after having delivery. Half of new moms have postpartum blues, a brief increase in emotional reactivity, within the first week following giving birth⁶⁷.

The greatest diet for infants, especially those under six months old, is breast milk. The most complete nourishment for a baby's growth and development is breast milk⁸. Low breastfeeding rates in Indonesia pose a risk to the growth and development of young children. Among other reasons, many moms feel that breastfeeding is unsuccessful because their milk is insufficient and does not release⁹. Starting breastfeeding at a young age benefits both the mother and the child. Breastfeeding has several advantages for women, including fostering love and attachment between them and their children. A baby's subsequent development may be impacted by emotional and mental illnesses brought on by the mother and baby's lack of bonding. Working women who feed formula or other foods besides breast milk to their infants before they are six months old are another element that permits a lack of bond between mother and kid¹⁰. According to data from the World Health Organization (WHO) for 2016, 38% of women worldwide exclusively breastfeed their infants. In Indonesia, there is an even distribution of exclusive breastfeeding, yet the success rate is still not great. According to the data, between 15.3% and 74.2% of infants under 6 months are exclusively breastfed. However, the proportion of data obtained by the 24-hour recall approach was consistently greater than the population's actual data¹¹.

Observational studies conducted in the

1960s and 1970s have shown that breastfeeding reduces baby and toddler morbidity and mortality^{12,13,14,15}. Human milk glycans, which contain oligosaccharides in both their free and conjugated forms, are demonstrated in studies to be a component of a natural immune process that explains how human milk protects breastfed children from diarrheal illness¹⁶. Additionally, nursing helps to ensure proper nutrition and subsequently non-specific immunity by reducing exposure to contaminated foods and fluids. Despite data showing that exclusive breastfeeding has beneficial and affordable health effects on a child's survival¹⁷.

The objectives of this study is to analyze factors associated with exclusive breastfeeding in the work area of Bulili Public Health Center South Birobuli Subdistrict Palu.

METHOD

This quantitative research was conducted through a cross-sectional approach. This study involved 90 mothers with babies aged 7-12 months, which was carried out from March 2023. The sample was selected using simple random sampling based on inclusion criteria. Direct interviews were used to collect primary data, and secondary data were obtained from Indonesia's health profile, data from the Palu City Health Office 2021, and data on exclusive breastfeeding. The data were processed using the chi-square statistical test with a significance degree of $\alpha = 0.05$. No need Ethical Clearance in this study.

RESULTS

Based on table 1 there is a relationship between knowledge and exclusive breastfeeding with $p = 0.018$ in the working area of the Bulili Health Center, South Birobuli Village. It can be seen that 44 people who have poor knowledge, there are 36 people (48.6%) do not give exclusive breastfeeding and 8 people (10.8%) give exclusive breastfeeding, while out of 30 people with good knowledge there are 16 people (21.6%) do not give exclusive breastfeeding and 14 people (18.9%) gave exclusive breastfeeding.

Table 1. The relationship between the meticulous variables and exclusive breastfeeding

Variable	Exclusive breastfeeding				Total		<i>p-value</i>
	Exclusive Breastfeeding		Not Exclusive Breastfeeding		n	%	
	n	%	n	%			
Knowledge							
Good	14	18.9	16	21.6	30	40.5	0.018
Not Good	8	10.8	36	48.6	44	59.5	
Behaviour							
Good	10	13.5	5	6.8	15	20.3	0.001
Not Good	12	16.2	47	63.5	59	79.7	
Formula Milk Promotion							
Not Interested	13	17.6	14	18.9	27	36.5	0.018
Interested	9	12.2	38	51.4	47	63.5	
Family support							
Supported	16	21.6	16	21.6	32	43.4	0.002
Not Supported	6	8.1	36	48.6	42	56.8	

Based on the findings between attitudes and exclusive breastfeeding, a significant relationship was found with a value of $p = 0.001$ in the working area of the Bulili Health Center, South Birobuli Village. Of the 59 people with a bad attitude, 47 people (63.5%) did not give exclusive breastfeeding and 12 people (16.2%) gave exclusive breastfeeding, and out of 15 people with a good attitude, 5 people (6.8%) did not give exclusive breastfeeding and 10 people (13.5%) gave exclusive breastfeeding.

Based on the findings, there is a significant relationship between interest in promoting formula milk and exclusive breastfeeding with a value of $p = 0.018$ in the working area of the Bulili Health Center, Birobuli Selatan Village. Of the 27 people with an interest in promoting formula milk who were not interested, 14 people (18.9%) did not give exclusive breastfeeding and 13 people (17.6%) gave exclusive breastfeeding, while of the 47 people with an interest in promoting formula milk who were interested there were 38 people (51.4%) did not give exclusive breastfeeding and 9 people (12.2%) gave exclusive breastfeeding.

Based on the results of the analysis, there is a significant relationship between family support and exclusive breastfeeding with a value of $p = 0.002$ in the working area of the Bulili Health Center, Birobuli Selatan Village. 42 people with unsupportive family support, 36 people (48.6%) did not give exclusive breastfeeding and 6 people (8.1%) gave exclusive breastfeeding, while out of 32

people with family support, 16 people (21.6%) did not give exclusive breastfeeding and 16 people (21.6%) gave exclusive breastfeeding.

Knowledge is the result of experience lived by someone after feeling something. Knowledge can influence how a person perceives information. As a result, people who are knowledgeable enough will more easily receive information than people who are less knowledgeable. According to ^{18,19}, the theory of planned behavior (TPB) is a useful theoretical framework for forecasting behavior change and has also been used to forecast nursing behavior. The main factors influencing behavior, according to the TPB, were attitude (knowledge), subjective norm, and practice control ¹⁹. A growing number of studies have assessed the relationships between breastfeeding behavior and knowledge, attitude, subjective norm, and practice control ^{18,20}. Due to the disparity in populations, the conclusions are contradictory, and it is still unclear which component is more crucial than others.

One can get knowledge from various sources. Often, interactions with other people, or health care providers broaden their acquaintance. Low maternal knowledge affects exclusive breastfeeding, mothers can provide additional food with formula milk, filtered water or give bananas and honey before the age of 6 months ²¹.

Based on the findings, there is a significant relationship between knowledge and exclusive breastfeeding. Mothers may not really know about exclusive breastfeeding, so

they may not breastfeed properly. The better the mother's knowledge about this problem, the more effective coverage of exclusive breastfeeding will be, mothers with positive knowledge will not give exclusive breastfeeding to their babies, effectively influenced by internal factors, and this is also supported by a lack of education about the benefits and content of exclusive breastfeeding.

Previous research that has been done²² with the results of statistical tests using the chi-square test obtained $p = 0.00$, p value $< \alpha$ value $= 0.05$ indicating that there is a correlation between mother's knowledge of exclusive breastfeeding at Cendrawasih Makassar Health Center 2021. Research is not in line with²³ that mother's knowledge is not related to exclusive breastfeeding. In this study, the percentage of mothers who had good knowledge of giving exclusive breastfeeding to their babies (73.3) was higher than mothers who had less knowledge (26.7%).

Attitude is a person's readiness to react to an object in a certain way, which involves their thoughts and feelings. Reactions can be either positive or negative behavior. If breastfeeding mothers have a positive perspective about exclusive breastfeeding, they will make the decision to provide exclusive breastfeeding and will continue to provide it²³. Attitudes are not just recording previous events, but deciding for or against something²⁴. Based on the findings, there is a significant relationship between attitudes and exclusive breastfeeding. The mother's positive attitude towards exclusive breastfeeding determines a person's willingness to provide exclusive breastfeeding for 6 months. Different from²³ shows that the mother's attitude is not related to exclusive breastfeeding (0.127). In this study, it was seen that the percentage gave exclusive breastfeeding (80%) compared to mothers who had less attitude (20%).

Mothers are advised to use formula milk, it is possible that mothers do not fully understand exclusive breastfeeding, the nutritional content contained in breast milk is better than formula milk, so mothers are easily influenced by formula milk²⁵. Promotion of formula milk encourages people to continue formula feeding. Formula milk for housewives comes in attractive shapes and packaging and is offered in various ways, one of which is through television promotions. Continuous promotion of formula milk makes mothers

believe that formula milk is better than breast milk, so they prefer to give formula milk to their babies²⁶. Based on the findings using chi-square, a significant relationship was found between interest in formula milk promotion and exclusive breastfeeding. The more exposure to formula milk advertisements, the more likely they are not to exclusively breastfeed their babies.

The results of this study are in line with research²⁵ based on statistical tests using the continuity correction test obtained a value of p -value $= 0.000$ ($p < \alpha$ of the value $\alpha = 0.05$). This means that H_0 is accepted, which means that there is a relationship between the promotion of formula milk and the failure of exclusive breastfeeding in infants aged 0-6 months at the UPTD Puskesmas Bojo Baru, Barru Regency in 2022.

External factors that greatly influence exclusive breastfeeding is family support. The existence of family support has an impact in the form of increasing self-confidence in breastfeeding mothers. Family support can be in the form of information, appreciation, instrumental and emotional support. Information about breastfeeding is not collected completely and continuously by the family, so the family's role is not big in continuing to provide exclusive breastfeeding²³.

Family support can make an important contribution to exclusive breastfeeding. Family support, both informational support, emotional support, instrumental support and assessment support, is very important for exclusive breastfeeding mothers. Family support for exclusive breastfeeding plays an important role in achieving the goal of exclusive breastfeeding, because the family will also determine how soft the response to breastfeeding is, which is greatly influenced by the emotional state or emotions of the mother. Therefore, it is necessary to increase awareness and support for breastfeeding mothers to ensure exclusive breastfeeding by involving the family²⁷.

Based on the findings using Chi-Square it is known that there is a relationship between family support and exclusive breastfeeding. Providing emotional motivation and other practical support from husbands or family can have a positive influence on mothers who practice exclusive breastfeeding, because the family is one of the factors that can influence a

mother's decision to breastfeed.

Research conducted by ²⁸ shows that there is a relationship between family support and exclusive breastfeeding with a p value = 0.003 <0.05. Positive family support cannot be separated from positive family attitudes as well. Not like research ²⁹ showed that it was not related to exclusive breastfeeding (p=0.861). More than half of the respondents stated that they had received support from their families to provide exclusive breastfeeding for their babies, namely 52.6%.

CONCLUSION

It can be concluded that there is a significant relationship between knowledge, attitudes, interest in promoting formula milk and family support with exclusive breastfeeding in the working area of the Bulili Health Center, Birobuli Selatan Village, Palu City. between attitudes and exclusive breastfeeding, a significant relationship was found with a value of p = 0.001 in the working area of the Bulili Health Center, South Birobuli Village. there is a significant relationship between interest in promoting formula milk and exclusive breastfeeding with a value of p = 0.018 in the working area of the Bulili Health Center, Birobuli Selatan Village. there is a significant relationship between family support and exclusive breastfeeding with a value of p = 0.002 in the working area of the Bulili Health Center, Birobuli Selatan Village. It is hoped that mothers will increase their knowledge, attitudes and family support by digging up information and making good use of social media.

REFERENCES

1. Motee A, Jeewon R. Importance Of Exclusive Breast Feeding And Complementary Feeding Among Infants. *Curr Res Nutr Food Sci*. 2014;2(2):56–72.
2. Motee A, Ramasawmy D, Pugo-Gunsam P, Jeewon R. An Assessment Of The Breastfeeding Practices And Infant Feeding Pattern Among Mothers In Mauritius. *J Nutr Metab*. 2013;2013:1–8.
3. Suehara Y, Yazawa Y, Hitachi K, Terakado A. Clear Cell Sarcoma Arising From The Chest Wall: A Case Report. *J Orthop Sci*. 2004;9(2):171–4.
4. Tromp I, Jong JK DE, Raat H, Jaddoe V, Franco O, Hofman A, Et Al. Breastfeeding and The Risk Of Respiratory Tract Infections After Infancy: The Generation R Study. *Plos One*. 2017;12(2):1–12.
5. Khanal V, Sauer K, Zhao Y. Exclusive Breastfeeding Practices In Relation To Social And Health Determinants: A Comparison of The 2006 And 2011 Nepal Demographic And Health Surveys. *Bmc Public Health*. 2013;13(1):1–13.
6. Kroska EB, Stowe ZN. Postpartum Depression: Identification And Treatment In The Clinic Setting. *Obstet Gynecol Clin North Am* [Internet]. 2020;47(3):409–19. Available From: <https://doi.org/10.1016/j.ogc.2020.05.001>
7. Jarman AF, Maclean J V., Barron RJ, Wightman RS, Mcgregor AJ. Brexanolone For Postpartum Depression: A Novel Approach And A Call For Comprehensive Postpartum Care. *Clin Ther* [Internet]. 2020;42(1):231–5. Available From: <https://doi.org/10.1016/j.clinthera.2019.11.005>
8. Laily UN, Sari DY, Yantina Y. Faktor-Faktor Yang Mempengaruhi Keberhasilan Menyusui Pada 2 Bulan Pertama. *MIDWIFERY JOURNAL*. 2022 May 9;2(1):19-30.
9. Sari M, Siregar Ai. Faktor-Faktor Yang Mempengaruhi Keberhasilan Menyusui Pada Ibu Nifas Primipara Di Wilayah Kerja Puskesmas Langsa Lama. *J Edukes J Penelit Edukasi Kesehat* [Internet]. 2022;5(2):1–8. Available From: <https://e-jurnal.stikesydb.ac.id/index.php/edukases/article/view/444>
10. Setyarini A, Mexitalia M, Margawati A. Pengaruh Pemberian Asi Eksklusif Dan Non Eksklusif Terhadap Mental Emosional Anak Usia 3-4 Tahun. *Medica Hosp J Clin Med*. 2017;3(1):16–21.
11. Samaria D, Florensia L. Description Of The Factors Exclusive Breastfeeding For Nursing Mothers In Desa Kalanganyar, Kabupaten Lebak, Banten [Gambaran Faktor-Faktor

- Pemberian Air Susu Ibu (Asi) Eksklusif Pada Ibu Menyusui Di Desa Kalanganyar, Kabupaten Lebak, Banten]. *Nurs Curr J Keperawatan*. 2020;7(2):21.
12. Todd WR, Elvehjem CA HE. Weanling Diarrhea. *Am J Physiol*. 1934;107(1):146-56.
 13. Waterlow JC, Thomson AM. Observations On The Adequacy Of Breast-Feeding. *Lancet*. 1979;314(8136):238-42.
 14. Callaghan A, Kendall G, Lock C, Mahony A, Payne J, Verrier L. Association Between Pacifier Use And Breast-Feeding, Sudden Infant Death Syndrome, Infection And Dental Malocclusion. *Jbi Libr Syst Rev*. 2005;3(6):1-33.
 15. Victora CG, Smith PG, Vaughan Jp, Nobre Lc, Lombardi C, Teixeira A N A Mb, Et Al. Infant Feeding And Deaths Due To Diarrhea In Developing Countries , Breast-Fed In- Fants Are Less Likely To Develop Diarrhea Than Those Who Are Artificially Fed (1 , 2) And Breast-Fed Infants Who Get Diarrhea Are Less Likely To Develop Complications Suc. *Am J Epidemiol*. 1989;129(5):1032-41.
 16. Morrow AL, Ruiz-Palacios GM, Jiang X, Newburg Ds. Human-Milk Glycans That Inhibit Pathogen Binding Protect Breast-Feeding Infants Against Infectious Diarrhea. *J Nutr*. 2005;135(5):1304-7.
 17. Lamberti LM, Fischer Walker Cl, Noiman A, Victora C, Black Re. Breastfeeding And The Risk For Diarrhea Morbidity And Mortality. *Bmc Public Health [Internet]*. 2011;11(Suppl. 3):S15. Available From: <http://www.biomedcentral.com/1471-2458/11/s3/s15>
 18. Ismail TAT, Muda WAMW, Bakar MI. The Extended Theory Of Planned Behavior In Explaining Exclusive Breastfeeding Intention And Behavior Among Women In Kelantan, Malaysia. *Nutr Res Pract*. 2016;10(1):49-55.
 19. Guo JL, Wang TF, Liao JY, Huang CM. Efficacy Of The Theory Of Planned Behavior In Predicting Breastfeeding: Meta-Analysis And Structural Equation Modeling. *Appl Nurs Res [Internet]*. 2016;29:37-42. Available From: <http://dx.doi.org/10.1016/j.apnr.2015.03.016>
 20. Bai Y, Middlestadt Se, Peng Cyj, Fly Ad. Predictors Of Continuation Of Exclusive Breastfeeding For The First Six Months Of Life. *J Hum Lact*. 2010;26(1):26-34.
 21. Ramli R. Correlation Of Mothers' Knowledge And Employment Status With Exclusive Breastfeeding In Sidotopo. *J Promkes*. 2020;8(1):36.
 22. Amir F. Hubungan Sikap Ibu Tentang Pemberian Asi Eksklusif Pada Bayi Pada Masa Covid-19 Di Puskesmas Cendrawasih Makassar. *J Kesehatan Delima Pelamonia [Internet]*. 2021;5(1):40-6. Available From: <https://ojs.akbidpelamonia.ac.id/index.php/journal/article/view/196>
 23. Sanofarizka L, Rahfiludin Mz, Fatimah S. Faktor-Faktor Yang Berhubungan Dengan Pemberian Asi Eksklusif Di Desa Cimekar Kabupaten Bandung. *Media Kesehat Masy Indones*. 2022;21(6):387-93.
 24. Umboh Oy, Umboh A, Kaunang De. Faktor-Faktor Yang Berhubungan Dengan Pemberian Asi Eksklusif. *Sam Ratulangi J Public Heal*. 2021;2(1):001.
 25. Aulia Kn, Prihatin Idris F, Rahman H, Kesehatan P, Masyarakat K. Hubungan Promosi Susu Formula Dengan Kegagalan Pemberian Asi Eksklusif Di Uptd Puskesmas Bojo Baru. *Wind Public Heal J*. 2023;4(1):153-61.
 26. Nancy A. Hubungan Pengetahuan, Imd Dan Iklan Susu Formula Terhadap Motivasi Pemberian Asi Eksklusif Di Desa Bangka Kota Kecamatan Simpang Rimba Kabupaten Bangka Selatan Tahun 2022. *Sentri J Ris Ilm*. 2022;1(3):17-34.
 27. Utami S, Abdullah, Dewi Ap, Muharramah A. Faktor-Faktor Yang Berhubungan Dengan Pemberian Asi Eksklusif Pada Ibu Menyusui Di Desa Kaliasin Kecamatan Tanjung Bintang Kabupaten Lampung Selatan Tahun 2022. *J Gizi Aisyah*. 2023;6(1):17-27.
 28. Prastanti D, Indrawati V. Factors Related To Exclusive Breastfeeding

For Brestfeeding Mothers In The Working Area Of Puskesmas Alun-Alun Gresik. *J Gizi Dan Kesehatan*. 2023;15(1):107–18.

29. Ruan Y, Zhang Q, Li J, Wan R, Bai J, Wang W, Zhou Y, Wan Q, Zhao J, Yu S, Peng M. Factors associated with exclusive breast-feeding: A cross-sectional survey in Kaiyuan, Yunnan, Southwest China. *PloS one*. 2019 Oct 9;14(10):e0223251. Available From: <http://dx.doi.org/10.1371/journal.pone.0223251>