



Analysis of Factors Related to Exclusive Breastfeeding During The Covid-19 Pandemic

Afifah Salsabilla Istisya¹, Betty Yosephin Simanjuntak² ✉, Wisuda Andeka Marleni³

¹⁻³Politeknik Kesehatan Kementerian Kesehatan Bengkulu, Indonesia

✉patricknmom@yahoo.co.id, Phone : +625273286858

Received: 01 February 2022/Accepted:08 August 2022/Published Online: 19 August 2022

© This Journal is an open-access under the CC-BY-SA License

Abstract

Exclusive breastfeeding during the Covid-19 period should ideally continue by implementing health protocols that ensure sufficient breast milk for babies during the Covid-19 pandemic to form antibodies to the baby's immune system against Covid-19 virus infection. The purpose of this study was to determine the factors associated with the success of exclusive breastfeeding during the Covid-19 pandemic at Karang Tinggi Health Center. The factors studied were exposure to information, mother's knowledge, maternal anxiety, support from health workers and the application of health protocols and the success of exclusive breastfeeding. This study uses a cross sectional study by distributing questions in an online questionnaire about breastfeeding during the Covid-19 pandemic. The sample amounted to 82 samples Analyzed through chi-square statistical test followed by logistic regression test. The percentage of mothers who gave exclusive breastfeeding during the Covid-19 pandemic at the Karang Tinggi Health Center was 41.5%. There is a significant relationship between information exposure and exclusive breastfeeding during the Covid-19 pandemic with p-value = 0.017. There is a significant relationship between knowledge of breastfeeding mothers and exclusive breastfeeding during the Covid-19 pandemic with p-value = 0.003. There is a significant relationship between the anxiety of breastfeeding mothers and exclusive breastfeeding during the Covid-19 pandemic with p-value = 0.028. There is a significant relationship between the support of health workers and exclusive breastfeeding during the Covid-19 pandemic with p-value = 0.020. There is a significant relationship between the implementation of health protocols and exclusive breastfeeding with p-value = 0.033. The most dominant factor related to exclusive breastfeeding was the support of health workers $p=(0.08)$; OR= 5.087. Health workers need to motivate and provide counseling to breastfeeding mothers to increase exclusive breastfeeding.

Keywords: Exclusive Breastfeeding; Covid-19 Pandemic; Support of Health Worker

INTRODUCTION

During the Covid-19 pandemic, exclusive breastfeeding can act as antibodies that can increase the baby's immunity from pathogenic microorganisms from an early age (Yu et al., 2020).. The latest recommendation from WHO, CDC, UNFPA, and UNICEF stated that mothers and newborns should be cared for together and have continuous skin contact, especially as soon as possible after delivery. The WHO recommendations regarding close contact with infants and breastfeeding mothers take into account not only the risk of infant infection with Covid-19 not breastfeeding can also cause illness and death, due to improper formula feeding and no skin contact protection when breastfeeding (Giuliani et al., 2020).

Prior to the Covid-19 pandemic, the coverage rate for exclusive breastfeeding in Indonesia was still low compared to the target for breastfeeding at 80%. However, the achievement of exclusive breastfeeding in Indonesia only reached 67.74% (Kementrian Kesehatan RI, 2019). The achievement of exclusive breastfeeding in Bengkulu Province is only 67% (Dinas Kesehatan Provinsi Bengkulu, 2019). Central Bengkulu Regency is the second lowest district in the achievement of exclusive breastfeeding in Bengkulu Province. The Central Bengkulu District Health Office report data from January to September 2020 states that the achievement rate of exclusive breastfeeding only reaches 60% (Dinas Kesehatan Kabupaten Bengkulu Tengah, 2020). Karang Tinggi Health Center is the health center with the lowest achievement in Central Bengkulu Regency. Based on data from the Karang Tinggi Health Center from January to September 2020, the number of exclusive breastfeeding achievements was only 24.3% (Puskesmas Karang Tinggi, 2020).

The Covid-19 pandemic causes obstacles in exclusive breastfeeding (Pramana et al., 2020). Research Brown and Natalie in 2020 stated that 70% of breastfeeding mothers in the UK stopped breastfeeding due to lack of support from health workers, 21% of breastfeeding mothers were concerned about the safety of breastfeeding, and 4% of 1360 breastfeeding mothers in the UK were informed that breastfeeding during Covid-19 was unsafe (Brown & Natalie, 2020). Constraints on exclusive breastfeeding due to lack of information about breastfeeding have resulted in a health facility that is pro breastfeeding and is included in the baby-friendly category not giving mothers the opportunity to initiate early breastfeeding. Mother and newborn are separated and the baby is given formula milk (Rahadian, 2020).

A study in the Bubulak sub-district, West Bogor in 2020 there were 27 breastfeeding mothers or 64.3% of mothers who had poor knowledge about breastfeeding during the Covid-19 period (Suryaman & Girsang, 2020). Research Pereira In 2020, 90.9% of 22 breastfeeding mothers infected with Covid-19 who had good knowledge about the transmission and prevention of Covid-19 chose to continue breastfeeding. Because according to mothers breastfeeding with breast milk, newborns can be protected from infection because babies get antibodies and anti-infection (Pereira et al., 2020).

Another consequence of the Covid-19 pandemic which has become an obstacle to exclusive breastfeeding is the anxiety of mothers in caring for their babies and mothers experiencing postpartum depression (Martins-Filho et al., 2020). There are 29% of breastfeeding mothers out of 545 pregnant women and breastfeeding mothers who experience anxiety during the Covid-19 period (Gharagozloo et

al., 2020). Based on research Ceulemans In 2020 there are 23.6% of 3345 breastfeeding mothers who experience anxiety during the Covid-19 period (Ceulemans et al., 2020). Depressed and anxious conditions can affect the production of breast milk that is not smooth (Jalal et al., 2017). Some professional organizations, and hospitals are against WHO guidelines. They forbid breastfeeding and breastfeeding so as to separate mother and baby to avoid transmission of Covid-19 (Gribble et al., 2020).

Health protocol applied by 73 breastfeeding mothers, 85% always use a mask and wash hands while breastfeeding 8% sometimes and 4% never (Salvatore et al., 2020). According to research Wahyuni in 2020 as many as 65% of respondents implemented health protocols to prevent transmission of Covid-19 (Wahyuni et al., 2020). Giuliani's 2020 research mentions actions to prevent transmission through wearing a face mask that covers breathing, washing hands before and after contact with babies, cleaning and disinfecting every touched surface, cleaning all baby eating utensils (breast pumps, bottles, pacifiers) (Giuliani et al., 2020).

Babies are still given exclusive breastfeeding from mothers who are positive for Covid-19 as much as 78% and 22% are given formula milk (Salvatore et al., 2020). Breastfeeding is not only to provide nutrition for the growth and development of infants but also as antibodies that provide protection against pathogenic microorganisms from an early age. Antibodies in breast milk provide immunity to the baby (Abdel-Hady, 2020). Breastfeeding the baby can limit the baby from the virus, so if the mother does not breastfeed, it will eventually increase the risk of being infected with the virus in the baby (Cacho & Lawrence, 2017). Babies who are not exclusively breastfed are more susceptible to disease

and infection with viruses that can cause death (Victora et al., 2016). So far, the Covid-19 virus has not been found in breast milk (Vivanti et al., 2020). Based on research Abdel-Hady 2020 states that the Covid-19 virus can be transmitted through respiratory droplets while breastfeeding. WHO (2020) states that women should continue to breastfeed by following the recommendations and prevention of transmission (Abdel-Hady, 2020).

Research Brown and Natalie in 2020 during the Covid-19 period, 70% of mothers in the UK stopped breastfeeding citing insufficient support from health workers (Brown & Natalie, 2020). But research Salvatore In 2020, 83% of mothers who tested positive for Covid-19 and were hospitalized remained in one room and were not separated from their babies, while 17% of mothers and babies were separated and isolated. But WHO places great emphasis on keeping mothers and babies close and supporting breastfeeding during this time of Covid-19 (Salvatore et al., 2020). This study aims to determine the factors related with exclusive breastfeeding during the Covid-19 pandemic. The factors reviewed include information exposure, knowledge of breastfeeding mothers, maternal anxiety, support from health workers, application of health protocols and the most dominant factors related to exclusive breastfeeding during the Covid-19 pandemic.

METHOD

This research used quantitative research through descriptive analytic approach with cross sectional study. Prior to collecting data, the research ethics is first carried out. Ethics is issued by the Poltekkes Kemenkes Bengkulu Ethics Committee with the ethics number No. KEPK.M/531/03/2021.

The dependent variable of this research is breastfeeding. The independent variables of this study were exposure to information, knowledge of breastfeeding mothers, maternal anxiety, support from health workers, and application of health protocols. The population of this study was breastfeeding mothers at Karang Tinggi Health Center with a population of 82 people. The sampling technique in this study is the Total Sampling technique, The sample selection was based on the characteristics of the criteria that met the requirements, namely breastfeeding mothers who were natives of the Karang Tinggi Health Center working area and had babies aged over 6 months, so the number of samples in this study was 82 samples. Collecting data through a questionnaire consisting of 60 closed questions. Breastfeeding is categorized as exclusive. Breastfeeding is categorized as exclusive if the respondent gives only breast milk without any food or drink during the age of the baby 0-6 months. Good category if the respondent answers the question above the mean value and bad category if the respondent answers below the mean value. Data analysis used univariate, bivariate, and multivariate analysis using chi-square test and logistic regression test with a significance level of 5%.

RESULT AND DISCUSSION

Based on table 1 as many as 54.8% of respondents aged less than 35 years shows that the majority of respondents' age is in the reproductive range. The reproductive age is 20-35 years, which is a good period for breastfeeding because at this age breast milk production will be optimal and productive mothers will be more active and enthusiastic in breastfeeding because they are still developing and motivated to seek information about exclusive

breastfeeding. Breastfeeding mothers who work as much as 52.4% of mothers who work formally and informally who work outside the home have to leave the baby within a few hours every day will affect breastfeeding in a different way from mothers who do not work always at home with their babies having a lot of time to give their babies exclusive breastfeeding (Widiastuti & Ramayanti, 2022). The results of the Health Collaborative Center (HCC) research show that mothers who continue to breastfeed (68.4%) even though mothers work but increase by 89.4% in mothers who WFH (Work From Home) during the Covid19 pandemic (Noviarni, 2021). Infants aged under 6 months at the time of interview were exclusively breastfed by 53.6% and infants aged over 6 months at the time of the interview.

Tabel 1. Description of the characteristics

Variables	Frequency	
	n	%
Mother's Age		
<35 years	45	54.8
≥35 years	37	45.2
Baby's Age		
<6 month (exclusive)	44	53.6
≥6 month (not exclusive)	38	46.4
Profession		
Work in	43	52.4
informal/formal sector	39	47.6
Does not work (housewife)		
Total	82	100

Information exposure, knowledge of breastfeeding mothers, maternal anxiety and support from health workers consisted of 10 questions categorized into good and bad. Good category if the average respondent's answer regarding information exposure is above the mean value, namely: 5.39

knowledge of breastfeeding mothers above the mean value = 5.20 maternal anxiety above the mean value = 5.61 support from health workers above the mean value of 5.22 and categorized not good if the average respondent's answer is below the mean value. Meanwhile, the health protocol consists of 10 questions that are categorized as good if the average respondent's answer is above the mean = 28.18 and is categorized as bad if the average respondent's answer is below the mean value.

This study described that mothers with poor information exposure are at risk of not giving exclusive breastfeeding by 3.343 times compared to mothers with good information exposure. These findings are in line with the NM and NK research in 2021 which showed that there was a significant relationship between information exposure and exclusive breastfeeding (NM & NK, 2021). However, the results of this study is different with Anggraini's study in 2020 which states that there is no significant relationship between information exposure and exclusive breastfeeding (Anggraini, 2020). Based on Brown and Nathalie's research in the UK in 2020, during the COVID-19 period, breastfeeding mothers received information that breastfeeding during the COVID-19 period was unsafe. This makes the mother feel that formula milk and breast milk are the same, so she can fast add formula if she feels that there is not enough milk (Brown & Natalie, 2020). Health workers do not provide information during pregnancy check-ups or when sending babies home about breastfeeding (Anggraini, 2020). Dissemination of information from health workers to families and breastfeeding mothers is very important to reach a common understanding, health workers must emphasize information that breastfeeding during the Covid-19 period is safe and beneficial, although new

evidence will emerge regarding COVID-19 in the future and health workers provide the latest information and answer the questions of breastfeeding mothers (Anggraini, 2020). Mothers with poor knowledge were at risk of not giving exclusive breastfeeding by 4.452 times compared to mothers with good knowledge. These findings are in line with the results of Anggraini's research in 2020 which showed that there was a significant relationship between knowledge of breastfeeding mothers and exclusive breastfeeding (Anggraini, 2020). The benefits of breast milk and the content of breast milk, as well as the food consumed by breastfeeding mothers that can affect the production of breast milk out. Breastfeeding mothers should have a basic understanding of breastfeeding and Covid-19. Knowledge of breastfeeding mothers about Covid-19 can encourage mothers to give exclusive breastfeeding to babies by implementing breastfeeding health protocols during the Covid-19 period (Kristiyanasari, 2018). Knowledge has an important role in mother's behavior, mother's understanding about breastfeeding will bring a deep understanding to the mother about the better or bad impact of breastfeeding (Peng et al., 2020).

Table 2. Factors related to exclusive breastfeeding during Covid-19 pandemic

Variable	Breastfeeding				Amount		<i>p-value</i>	<i>OR</i>
	Not Exclusive		Exclusive		n	%		
	n	%	n	%				
Information Exposure							0.017	3.343
Not good	31	72.1	12	27.9	43	100		
Good	17	43.6	22	56.4	39	100		
Knowledge of breastfeeding mothers							0.003	4.452
Not good	34	73.9	12	26.1	46	100		
Good	14	38.9	22	61.1	36	100		
Mother's Anxiety							0.028	3.056
Anxious	30	71.4	12	28.6	42	100		
No anxious	18	45	22	55	40	100		
Health Officer Support							0.020	3.231
Not good	32	71.1	13	28.9	45	100		
Good	16	43.2	21	56.8	37	100		
Implementation of Health Protocol							0.033	2.946
Not good	31	70.5	13	29.5	44	100		
Good	17	44.7	21	55.3	38	100		
Amount	48	58.5	34	41.5	82	100		

There is a relationship between anxiety and smooth milk production. These results prove that there is a relationship between anxiety and breastfeeding mothers' milk production which affects exclusive breastfeeding (Nurhayati & Nurlatifah, 2018). Covid-19 has a serious impact on the mental health of nursing mothers as well as anxious, indication of depression, and be afraid. Gharagozloo's 2020 research findings This anxiety and depression are caused by isolation, media information overload, limited access, high mortality rates, discrimination,

and disrupted travel (Gharagozloo et al., 2020). Breast milk production is strongly influenced by the anxiety factor of the mother who is always in a state of depression, sadness, lack of confidence, and various forms of emotional tension will reduce the volume of breast milk and even breast milk production will not occur. To get good breast milk, you must be in a calm state (Sulastri, 2016).

Based on table 2 the support of health workers, these findings *p-value* = 0.020 with an OR value of 3.2, meaning that mothers who stated that the support of health workers were not good were at risk of not giving exclusive breastfeeding by 3.2 times compared

to mothers who stated that the support of health workers was good. These findings are in line with

Zahara (2019) which showed a significant relationship between the support of health workers and exclusive breastfeeding (Zahara, 2020). However, the results of this study are not in line with the Umboh (2021) stated that there was no significant relationship between the support of health workers and exclusive breastfeeding (Umboh et al., 2021). Health worker support is physical and psychological comfort, attention, appreciation, and assistance in other forms that individuals receive from health workers. The support of health workers is that health workers must continue to support, provide guidance, and provide information about breastfeeding during the Covid-19 period. Health workers must continue to support mothers by changing the situation by saying that mothers can still breastfeed and emphasizing that breastfeeding during the Covid-19 period is safe and beneficial for babies. The support of health workers is also like answering questions from breastfeeding mothers about breastfeeding with Covid-19. Mother with covid-19 infection, health workers can provide support by helping to maintain the mother's milk supply so that it runs smoothly by expressing it (Angraini, 2020).

Mothers with poor health protocol implementation were at risk of not giving exclusive breastfeeding by 2.9 times compared to mothers with good health protocol implementation. These findings are in line with Salvatore's (2020) which showed that there was a relationship between the application of breastfeeding health protocols with exclusive breastfeeding and as a preventive measure for Covid-19 transmission to mothers infected with Covid-19 (Salvatore et al., 2020). According to Minister of Health (2020) described to be an effort to minimize

the risk of transmission of the Covid-19 virus to health or non-health workers (Umboh et al., 2021). Transmission occurs through droplets containing the Covid-19 virus that enters through the nose, mouth and eyes. If a baby is born to a mother with suspected COVID-19 the baby must be fed according to standard newborn feeding guidelines with the implementation of all infection prevention and control measures (Abdel-Hady, 2020). Breastfeeding tends to be at risk of transmission through droplets because the baby is in close contact with the mother.

Mothers who are asymptomatic or have mild symptoms can breastfeed directly while continuing to prevent the transmission of Covid-19, such as using a surgical mask, and washing hands and cleaning breasts with soap and water (Giuliani et al., 2020). Infection prevention and control practices for breastfeeding and infant feeding during the Covid-19 period include mothers should not be separated from their babies unless the mother has severe symptoms and it is difficult to care for her baby, allows hospitalization and early skin touch among mother and baby, breastfeeds within 1 hour after birth with the implementation of health protocols according to WHO recommendations, mothers are required to wear a face mask and perform respiratory hygiene (clean cough into a tissue and then throw it away) then immediately wash hands, wash hands before contact with babies, before and after breastfeeding, clean the chest with soap and water if coughing before breastfeeding, clean and disinfect surfaces where the mother comes into contact, avoid coughing and sneezing while breastfeeding the baby, mothers are encouraged to express breast milk by implementing health protocols, providing special breast pumps (Kristiyanasari, 2018).

Tabel 3. The final variable related to breastfeeding during Covid-19 pandemic

Variable	Sig.	Exp(B)	(CI 95%)
Health Officer Support	0.008	5.087	(1,529-16,924)
Breastfeeding Mother's Knowledge	0.037	3.806	(1,082-13,383)
Implementation of Health Protocol	0.041	3.225	(1,052-9,887)
Mother's anxiety	0.139	2.450	(0.747-8036)
Information exposure	0.149	2.191	(0.754-6.365)

Knowledge about breastfeeding during the Covid-19 period is very important because information about breastfeeding patterns during the pandemic is an internal factor that affects the accuracy of breastfeeding behavior during the Covid-19 period. Knowledge of breastfeeding patterns during the Covid-19 pandemic is related to breastfeeding motivation and controlling and preventing the risk of Covid-19 transmission during the breastfeeding process. Good knowledge about breastfeeding during Covid-19, the more precise it is in implementing health protocols protocol (Kusumaningrum, 2021).

Mothers with poor health protocol implementation are at risk of not giving exclusive breastfeeding by 3.225 times compared to mothers with good health protocol implementation. Breastfeeding mothers who are confirmed to have Covid-19 can continue to breastfeed their babies, which of course must be done with health protocols such as wearing a mask when breastfeeding and washing hands with soap before and after handling

the baby, finally disinfecting all surfaces that the mother often touches (Endah, 2020)

CONCLUSION

The dominant factors related to exclusive breastfeeding during the Covid-19 pandemic were the support of health workers, knowledge of breastfeeding mothers, and the application of health protocols. The most dominant factor with exclusive breastfeeding during the Covid-19 pandemic is the support of health workers. Health workers are an important role to to motivate and provide counseling to breastfeeding mothers to increase exclusive breastfeeding.

REFERENCES

- Abdel-Hady, E.-G. Md. (2020). Asploro Journal of Biomedical and Clinical Case Reports COVID-19 and Breastfeeding. *Asp Biomed Clin Case Rep*, 3(2), 102–105. <https://doi.org/10.36502/2020/ASJBCCR.6194>
- Anggraini, R. (2020). Faktor-Faktor Luar Yang Mendukung Pemberian ASI Eksklusif Reti Anggraini. *Jurnal Ilmu Gizi Indonesia (JIGZI)*, 1(1), 78–87. <http://www.jurnal.umitra.ac.id/index.php/JIGZI/article/view/363>
- Brown, A., & Natalie, S. (2020). Breastfeeding support during COVID-19. *A Summary Report in Collaboration with the Breastfeeding Network Professor*, 1–9.
- Cacho, N. T., & Lawrence, R. M. (2017). Innate immunity and breast milk. *Frontiers in Immunology*, 8(MAY). <https://doi.org/10.3389/fimmu.2017.00584>
- Ceulemans, M., Hompes, T., & Foulon, V. (2020). Mental health status of pregnant and breastfeeding women during the COVID-19 pandemic: A call for action. *International Journal of Gynecology and Obstetrics*, 151(1), 146–147. <https://doi.org/10.1002/ijgo.13295>
- Dinas Kesehatan Kabupaten Bengkulu Tengah. (2020). *Laporan ASI eksklusif Bulan Januari-September 2020*. Dinas Kesehatan Kabupaten Bengkulu Tengah.
- Dinas Kesehatan Provinsi Bengkulu. (2019). *Laporan ASI Eksklusif tahun 2019*.
- Endah, Y. (2020). Pucung Kecamatan Balongpanggang Gresik. *Prosiding PKM-CSR*, 3, 406–414.
- Gharagozloo, M., Sadatmahalleh, S. J., Khomami, M. B., & ... (2020). *Mental Health and Marital Satisfaction Changes of Pregnant and Lactating Women During the COVID-19 Pandemic*. 1–16. <https://www.researchsquare.com/article/rs-49590/latest.pdf>
- Giuliani, C., Li Volsi, P., Brun, E., Chiambretti, A., Giandalia, A., Tonutti, L., Di Bartolo, P., & Napoli, A. (2020). Breastfeeding during the COVID-19 pandemic: Suggestions on behalf of woman study group of AMD. *Diabetes Research and Clinical Practice*, 165, 108239. <https://doi.org/10.1016/j.diabres.2020.108239>
- Gribble, K., Marinelli, K. A., Tomori, C., & Gross, M. S. (2020). Implications of the COVID-19 Pandemic Response for Breastfeeding, Maternal Caregiving Capacity and Infant Mental Health. *Journal of Human Lactation*, 00(0), 1–13. <https://doi.org/10.1177/0890334420949514>
- Jalal, M., Mahrokh, D., Mahmoodi, Z., & Aliyari, R. (2017). The relationship between psychological and maternal social support to breastfeeding process. *Electronic Physician*, 9(1), 3591–3596.
- karang tinggi, P. (2020). *Laporan ASI Eksklusif 2020*.
- Kementrian Kesehatan RI. (2019). Informasi Kesehatan Indonesia 2019. *Kementrian Kesehatan RI*, 8(9), 1–58.
- Keputusan Menteri Kesehatan Republik Indonesia. (2020). Keputusan Menteri Kesehatan Republik Indonesia Nomor HK.01.07/MenKes/413/2020 Tentang Pedoman Pencegahan dan Pengendalian Corona Virus Disease 2019 (Covid-19). *MenKes/413/2020*, 2019.
- Kristiyanasari, W. (2018). *ASI, Menyusui dan Sadari*. Nuha Medika.
- Kusumaningrum, A. T. (2021). a Faktor-Faktor Yang Mempengaruhi Pola Menyusui Pada Masa Pandemi Covid-19. *Jurnal Ilmiah Kesehatan Media Husada*, 10(1), 74–81. <https://doi.org/10.33475/jikmh.v10i1.259>
- Martins-Filho, P. R., Santos, V. S., & Santos, H. P. (2020). To breastfeed or not to breastfeed? Lack of evidence on the presence of SARS-CoV-2 in breastmilk of pregnant women with COVID-19. *Revista Panamericana de Salud Publica/Pan American Journal of Public Health*, 44, 1–5. <https://doi.org/10.26633/RPSP.2020.59>

- NM, A. F., & NK, A. S. (2021). Determinan pemberian ASI eksklusif pada ibu menyusui di Puskesmas I Denpasar Barat. *Jurnal Kebidanan*, 10.
- Noviarni, S. (2021). *Masa Pandemi, Angka Pemberian ASI Eksklusif Justru Makin Tinggi*. Sindo News.
- Nurhayati, F., & Nurlatifah, S. (2018). Hubungan Pengetahuan Ibu Menyusui Tentang Pemberian ASI Perah dengan Pendidikan di Wilayah Kerja Puskesmas Cimahi Tengah. *Midwife Journal*, 4(02), 11–15. <https://www.neliti.com/publications/267045/hubungan-pengetahuan-ibu-menyusui-tentang-pemberian-asi-perah-dengan-pendidikan>
- Peng, Y., Ng, M., Fen, Y., Xin, L., Goh, L., Fok, D., & Amin, Z. (2020). *Menyusui dalam COVID-19 : Pendekatan Pragmatis*. 1(212).
- Pereira, A., Cruz-Melguizo, S., Adrien, M., Fuentes, L., Marin, E., Forti, A., & Perez-Medina, T. (2020). Breastfeeding mothers with COVID-19 infection: A case series. *International Breastfeeding Journal*, 15(1), 1–8. <https://doi.org/10.1186/s13006-020-00314-8>
- Pramana, C., Suwanto, J., Sumarni, N., Kumalasari, M. L. F., Selasih Putri Isnawati, H., Supinganto, A., Ernawati, K., Sirait, L. I., Staryo, N., Nurhidayah, & Dwiyono, K. (2020). Breastfeeding in postpartum women infected with COVID-19. *International Journal of Pharmaceutical Research*, 12(4), 1857–1862. <https://doi.org/10.31838/ijpr/2020.12.04.265>
- Rahadian, A. S. (2020). COVID-19, Exclusive Breastfeeding and Babies Well-beings. *Pusat Penelitian Kependudukan*.
- Salvatore, C. M., Han, J. Y., Acker, K. P., Tiwari, P., Jin, J., Brandler, M., Cangemi, C., Gordon, L., Parow, A., DiPace, J., & DeLaMora, P. (2020). Neonatal management and outcomes during the COVID-19 pandemic: an observation cohort study. *The Lancet Child and Adolescent Health*, 4(10), 721–727. [https://doi.org/10.1016/S2352-4642\(20\)30235-2](https://doi.org/10.1016/S2352-4642(20)30235-2)
- Sohimah, & Lestari, Y. A. (2015). Pengaruh Dukungan Keluarga dan Dukungan Tenaga Kesehatan terhadap Pemberian ASI Eksklusif. *Seminar Nasional Dan Presentasi Hasil-Hasil Penelitian Pengabdian Masyarakat, Maryuani* 2012, 284–291. <http://ojs.akbidylpp.ac.id/index.php/Prada/article/view/277>
- Sulastri, W. (2016). HUBUNGAN TINGKAT KECEMASAN IBU DENGAN PEMBERIAN ASI PADA MASA NIFAS DI PUSKESMAS UMBULHARJO I YOGYAKARTA TAHUN 2016. *Universitas Aisyiyah Yogyakarta*.
- Suryaman, R., & Girsang, E. (2020). HUBUNGAN PENGETAHUAN DENGAN KECEMASAN IBU DALAM PEMBERIAN ASI PADA BAYI DIMASA PANDEMI COVID 19 aktifitas yang bagi ibu , yaitu ibu menyusui . Menyusui merupakan proses memberikan makanan pada bayi dengan menggunakan air susu ibu langsung dari payudara ib. *Jurnal Wijaya*, 1–7.
- Umboh, Y., Umboh, A., & Kaunang, D. (2021). *Sam Ratulangi*. 2(March), 1–6.
- Victoria, C. G., Bahl, R., Barros, A., Franca, G. V., Horton, S., Krasever, J., Murch, S., Sankar, M. J., Walker, N., & Rollins, N. C. (2016). Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *The Lancet*, 387, 475–489. <https://doi.org/10.1109/isaom.2001.916583>
- Vivanti, A., Prevot, S., & Zupan, V. (2020). Transplacental transmission of SARS-CoV-2 infection. *Research Square*.
- Wahyuni, I., Hasanah, U., Yanti, N., & Putra, I. D. (2020). *Pemberdayaan Ibu Pasca Bersalin , Keluarga , tentang PHBS , Perawatan Ibu dan Bayi serta Pencegahan Penularan COVID-19*. 1(2), 78–87.
- Widiastuti, Y. P., & Ramayanti, E. D. (2022). Tingkat pengetahuan ibu menyusui berpengaruh terhadap upaya untuk meningkatkan produksi ASI selama pandemi COVID 19. *NURSCOPE: Jurnal Penelitian Dan Pemikiran Ilmiah Keperawatan*, 7(2), 97. <https://doi.org/10.30659/nurscope.7.2.97-106>

Yu, Y., Li, Y., Hu, Y., Li, B., & Xu, J. (2020). Breastfed 13 month-old infant of a mother with COVID-19 pneumonia: A case report. *International Breastfeeding Journal*, 15(1), 1–6. <https://doi.org/10.1186/s13006-020-00305-9>

Zahara, Q. (2020). Hubungan Pengetahuan, Sikap Ibu dan Peran Petugas Kesehatan dengan Pemberian ASI Eksklusif Puskesmas Tanjung Tiram Desa Suka Maju Batubar. *Universitas Sumatera Utara*.