Optimizing Of Exclusive Breastfeeding Practices in Covid 19 Pandemic : An Articles Review

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Abstract: World Health Organization recommendations for Exclusive Breastfeeding for newborns up to 6 months. Breastfeeding has been shown to protect against infectious disease and increase body immunity, among other benefits. During the pandemic, breastfeeding becomes very crucial because the pandemic limits exclusive breastfeeding with mothers giving birth in health care facilities and other health problems that cause mothers to not be optimal in exclusive breastfeeding. We conducted exclusive breastfeeding in Pandemic Covid19. We analysed nine articles consisting of six studies considering exclusive breastfeeding for non-infected mothers and three studies presenting mothers with covid19. To optimize exclusive breastfeeding during the pandemic, promote the benefits of breastfeeding in the first-day life of newborns needed and safety giving exclusive breastfeeding practice for mothers with COVID-19 while maintaining health protocols.

1 INTRODUCTION

Exclusive breastfeeding for newborns is an effort to improve infant health and fulfil appropriate nutritional needs. In human milk, some ingredients are needed by the infants body to be healthy. WHO recommendation for giving exclusive breastfeeding to newborns up to six months. The coverage of exclusive breastfeeding was increasing for decades.

In Indonesia, the total data on babies aged less than six months were 2,113,564 babies in 2020. Babies get exclusive breastfeeding about 66.1%. The indicator for achieving the percentage of infants aged less than six months who are exclusively breastfed has met the national target for that year, 40%.

The Covid-19 pandemic was bringing a drastic decrease in the coverage of exclusive breastfeeding. The impact on the environment for mothers and infant causes a decrease in exclusive breastfeeding coverage, which is increasingly concerning. In contrast, high coverage of breast milk increasing the infant's immune system from various health problems, including infectious diseases. This condition was exacerbated by lockdowns and quarantines that limited the access of mothers and infant to public health services.

The existence of restrictions in large-scale social activities intended to reduce and break the chain of transmission of Covid-19 has impacts the implementation of health services at Primary Health Care, mother's classes, and others. Most Primary Health Care activities were postponed, including weighing, and counselling. The pandemic conditions also affect the rules and policies in hospitals regarding the implementation of early initiation of breastfeeding, direct breastfeeding and rooming-in for newborns. These rules were adjusted in order to avoid the transmission of Covid-19 in newborns.

Therefore we conducted a literature review on optimising exclusive breastfeeding during the COVID-19 pandemic. To analyse the flaws that we will use as the basis for developing further breastfeeding coverage expansion programs.

2 METHODS

In this study, we used a literature study, which we searched for from various search engines, including Google Scholar, Pubmed, and BioMed, by using the word "Exclusive Breastfeeding in Pandemic Covid19" with articles published from 2020-2021. We found 7,812 articles describing the keyword. Then we entered the inclusion and exclusion criteria in accessing the journal articles to find 9 articles that match the criteria for the articles.

2.1 Study selection

In this study, we used several types of research, Cross-sectional, Case-Control, and Cohort study, to provide more accurate information about exclusive breastfeeding during the Pandemic Covid19.

2.2 Data synthesis

The data synthesis that we carried out was to construct the results of the selected articles to provide an in-depth study of the variables we studied. In making PRISMA diagrams, which we do semi-manually, we collected some of the data in the Nvivo application, and partly we did it manually. However, the diagram is not listed in PROSPERO.

3 RESULT

The total number of articles that we found was 7,812 articles, and after going through the screening process, we got 988 articles. Then we filtered the articles based on the exclusion criteria that we had previously set and got 553 articles. After that, we separate these articles from the writing in the form of guidelines or commentary; the schematic is shown in Figure 1 until we get nine selected articles. Which we synthesize into table 1.

From nine articles, we found that, in general, during the COVID-19 pandemic, most of the mothers, both infected and uninfected, had difficulty breastfeeding in total for the first six months. These articles reinforce each other to state that quarantine or lockdown conditions make it difficult for mothers to give exclusive breastfeeding optimally. This problem is caused by environmental problems that change very drastically. And this problem is felt by mothers, and even more so the burden on new mothers.

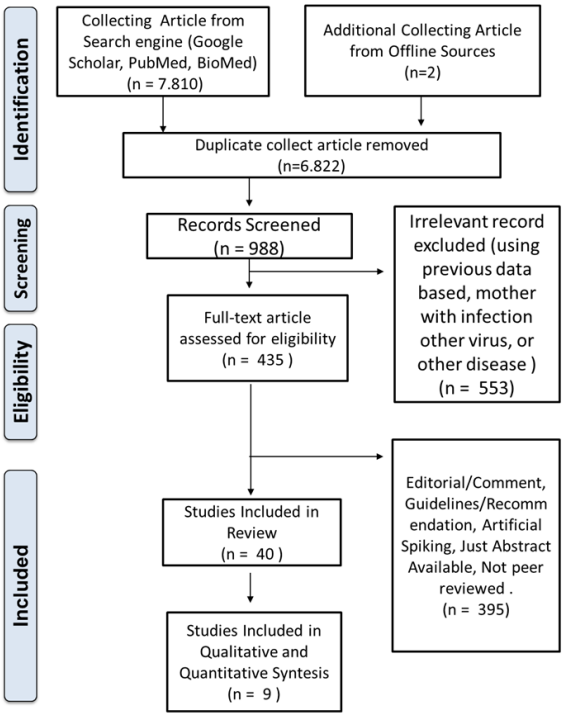

Figure 1: PRISMA flow diagram

Among the nine selected research articles about exclusive breastfeeding during the covid19 period, consisting of six articles with non-infected mothers, and there were three articles with mothers with covid19. The Six articles describing the mother didn't give exclusive breastfeeding in the pandemic period. Because of the mother's lack of awareness, limited information received by the mother, mother's education level, baby's socioeconomic condition, and the lack of a support system for the family around the mother so that when entering a pandemic condition, this was further exacerbated by major social changes such as locking and quarantine.

Table 1: Characteristics Of Analysis Article About Exclusive Breastfeeding in Pandemic Covid19 (Collecting data 2020-2021).

Author (Year)	Subject	Result	Outcome
Latorre et al (2021)	non-infected mothers	69.4% of infants received exclusive breastfeeding during the pandemic (lockdown) and 97.7% of controls. After 30 days to 54.3% vs. 76.3% and to 31.8% vs. 70.5% at day 90 ($p < 0.001$).	Lockdown causes a decrease in exclusive breastfeeding for infants, especially in the first 90 days of life.
Pereira et al (2020)	infected mothers	In 82% of infants of mothers infected with COVID-19 who were exclusively breastfed after one month, it down to 77% at 1.8 months.	Exclusive breastfeeding for mothers infected with COVID-19 is safe, also with the help of donor human milk and infant formula.
Varquez et al (2020)	non-infected mothers	Mothers birth during Lockdown had shorter hospital stays ($p < 0.001$). Furthermore, 59% of babies born during the Lockdown giving exclusive breastfeeding/mixed feeding versus 39% born before the Lockdown ($p < 0.05$). Spouses (60%), health workers (50%) and online groups (47%) are the influences given in exclusive breastfeeding.	The lockdown has had an impact on the mother's experience, resulting in a lack of better infant feeding.
Salvator et al (2020)	infected mothers	All mothers infected with COVID-19 are allowed to breastfeed their babies exclusively. However, the representation becomes 78% on days 5-7.	Prevention is critical to breaking the chain of transmission of covid 19 during the perinatal period, and also breastfeeding directly from mother to baby is safe.
Neo-COVID-19 Research Group (2021)	infected mothers	The probability of skin-to-skin breastfeeding practice during the pandemic was greater (OR = 1.9; 95% CI [1.18, 3.29]) in accredited maternal and child health institutions. Similarly, bringing together mothers and newborns in one room was less likely to be done in an unaccredited institution (OR = 0.46; 95% CI [0.26, 0.81]).	Exclusive breastfeeding for babies is higher if handled by an accredited institution.
Costantini et al (2021)	non-infected mothers	Mothers have more significant anxiety problems if they have more than one child. The results also illustrate that the mother's condition during the lockdown limits her from online sources of information about exclusive breastfeeding.	Health professional institutions must consider the perspective of mothers in exclusive breastfeeding during the lockdown period.
Behesti et al (2021)	non-infected mothers	The terror of the covid19 problem was not significant to the decrease in BSE with a p-value of 0.514. Factors that are strong predictors of BSE are Spousal Support ($p = 0.04$), strong intention to provide exclusive breastfeeding, additional formula milk as a complementary milk, and depression problems experienced mother.	The problem of fear in Covid19 is not a strong predictor in applying BSE during the pandemic.

Piankusol et al (2021)	non-infected mothers	An important point, some of the mothers we identified changed the pattern of breastfeeding by 4.32%. Of these, including those who give formula milk with breast milk, the frequency of breastfeeding is reduced compared to the pre-pandemic period.	In Thailand, during the lockdown period, exclusive breastfeeding decreased.
Goncalves-Ferri et al (2021)	non-infected mothers	During the Covid-19 period, the implementation of health protocols is stringent. 98.5% of mothers birth were not allowed to touch the skin and not supported exclusive breastfeeding in the first hour of the baby's birth. Furthermore, in the postpartum ward, 98.5% did not allow direct breastfeeding of newborns.	Guidelines for exclusive breastfeeding during a pandemic should likewise cover vulnerable populations.

Three articles describe mothers with COVID-19 who emphasize exclusive breastfeeding by paying attention to maternal hand hygiene, wearing masks, and maternal health conditions. Although mothers gave exclusive breastfeeding in the first hour of life, only 78% survived until 5th day, thereby reducing the fulfilment of exclusive breastfeeding coverage. The chance of exclusive breastfeeding is greater if the mother gives birth in the middle. Accredited maternal and child health services compared to non-accredited ones.

4 DISCUSSION

Covid-19 pandemic decreasing exclusive breastfeeding coverage in various countries such as the UK, United States, and Thailand due to lockdown and quarantine (Latorre et al., 2021; Salvatore et al., 2020; Vazquez-Vazquez et al., 2021). The lockdown resulted in low support for mothers during the antenatal to the postnatal period and breastfeeding, low social and partner support (Ahmad Zadeh Beheshti et al., 2021); limited direct health care interventions and information (Piankusol et al., 2021); and mental health services (Costantini et al., 2021).

Other research states that the problems faced by breastfeeding mothers are the lack of information (Suryaman et al., 2021) and knowledge about Covid-19, transmission of Covid-19 through breast milk, and safe ways of giving exclusive breastfeeding to babies according to health protocols (Rochmawati et al., 2021)

The challenge for policymakers in determining the health status of postpartum mothers with Covid-19 can be giving exclusive breastfeeding to newborns. The general public must be quarantined during the pandemic. However, newborns have special conditions that require exclusive breastfeeding. Various policies have been set regarding the prohibition of breastfeeding for mothers with Covid-19. Mothers were quarantined for two weeks and separated from their newborns (McFadden et al., 2017), Treatment for Newborns utilizing human donor milk, pumped milk, or pasteurized milk (Pereira et al., 2020).

Several studies had no evidence of transmission of SARS-CoV-2 through human milk to infants (Chen et al., 2020). A replicating and infectious virus must enter the newborn body and produce a response immune. Therefore, WHO recommends that mothers with Covid-19 able to breastfeed their newborn by implementing infection prevention and control procedures according to health protocols (Salvatore et al., 2020; Favre et al., 2020). In addition, the benefits of breastfeeding with skin to skin contact can increase bonding between mother and newborn (Olza-Fernández et al., 2014). This procedure can reduce the

risk of postpartum depression (Postpartum Blues) (Hahn-Holbrook et al., 2013).

Human milk contains IgA and IgG, which prevent newborns from infection and death. Mothers with Covid-19 have IgA antibodies in their human milk. Infants show reactive responses against SARS-CoV-2; investigation still needed (WHO, 2020).

Breastfeeding can prevent infections caused by microorganisms such as shortness of breath, food allergies, overweight, and digestive disorders. In the breastfeeding process, there is a vertical distribution of immune substances capable of protecting against disease and repairing epithelial tissue, microorganisms, and the child's immune system.

According to several recent studies, breast milk can also provide passive protection and directly adjusts the development of the baby's immune system. Colostrum contains many nutrients and high body defence substances, proving the defence function of the baby's body when it starts to get infected with the virus, and this immune substance is continuously giving during the breastfeeding process. (Le Doare et al., 2018)

Breast milk is the top priority in baby food. However, when viewed from the safety point of view and its implementation, when Covid-19 infection in mothers has agreed, there is still insufficient evidence to show that infection can be transmitted through breast milk. (Lackey et al., 2020).

Mothers infected with the COVID-19 virus, as many as 65% of them have a natural history with their babies at birth, and up to 55% of them immediately give breast milk in the first hour of their baby's birth.(Pereira et al., 2020). One of the safe and effective methods of improving the baby's nasal passages is direct mother-to-baby touch.(Lamy Filho et al., 2015).

The actions for increasing exclusive breastfeeding practice during the Covid-19 pandemic are Spouse, family, and social support for breastfeeding mothers; Health counselling and health service interventions; Prevent, recognise and react to mental health problems of breastfeeding mothers; Make skin-to-skin contact for discovering bonding between mother and newborns.

Anticipations during breastfeeding in mothers with Covid-19 are wearing a fit face mask; Washing hands before and after contact with infants; cleaning and disinfecting all touched surfaces; Clean baby feeding utensils (breast milk bottles, pumps and pacifiers); Avoid falling asleep with newborn (UNICEF, 2020)

The limitation study was a rare article, particularly nine articles related to the inclusion and exclusion criteria. So that further research is needed using a larger scale of case data.

5. CONCLUSIONS

This study suggests optimising exclusive breastfeeding during the pandemic, promoting the benefits of breastfeeding in the first-day life of newborns needed and safety giving exclusive breastfeeding practice for mothers with COVID-19 while maintaining health protocols.

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