Analysis of Factors Affecting Breastfeeding Patterns During the 2021 Covid-19 Pandemic

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ABSTRACT

Breast milk is the most ideal nutrition for babies because it contains nutrients that are most suitable for the baby's needs and contains antibodies that can protect babies from various diseases, especially during the Covid-19 period. This study aims to determine the factors that influence breastfeeding patterns during the COVID-19 pandemic in 2021.

The research design used Correlative Analytical with Crosssectional approach. The sample of this research used purposive sampling. The number of samples is 97 breastfeeding mothers in the city of Padang in 2021.

Collecting data using a structured questionnaire to determine the level of knowledge, attitudes, work status and breastfeeding patterns during COVID-19.

The data analysis used was univariate and bivariate using Chi-square statistical test (p < 0.05).

Based on the results of the Kruskal Wallis test, of the 4 variables that are associated with breastfeeding patterns during Covid-19, only the knowledge variable has an Assymp sig = 0.049 (< 0.05), it can be concluded that there is a difference between a person's level of knowledge on breastfeeding patterns. during Covid-19.

While the education, work and attitude variables have an Assymp Sig value > 0.05 which means there is no difference between education, work and attitudes with breastfeeding patterns during Covid-19.

KEYWORDS

Breastfeeding, Breastfeeding Patterns, Covid-19

I. PRELIMINARY

One of the indicators of a country's welfare is seen from the Infant Mortality Rate (IMR). The target by 2030 is to end preventable infant and child mortality, with all countries working to reduce the Neonatal Mortality Rate to at least 12 per 1000 KH (Live Births) and the Toddler Mortality Rate to 25 per 1000 (SDGs, goal-3). The World Health Organization (WHO) and the United Nations of Children's Fund (UNICEF) in the global strategy of feeding infants and children state that the prevention of infant mortality is by providing appropriate food, namely exclusive breastfeeding for 6 months of life and the introduction
of complementary foods (MPASI). which is safe and nutritious at the age of 6 months along with continued breastfeeding until the age of 2 years or more (WHO, 2020).

Breast milk is an ideal nutrition for babies that contains nutrients that are most suitable for the baby's needs and contains a set of protective substances to combat disease, including during the COVID-19 outbreak (WHO, 2020). There is immunological protection in breast milk so that many experts agree that breastfeeding mothers still have to breastfeed during the covid-19 pandemic. Breast milk is the perfect mixture of antibodies, vitamins and immune factors so it is very much needed during this pandemic to increase baby's immunity. So that changes in the pattern of exclusive breastfeeding during the COVID-19 pandemic need to be understood by mothers (Kemenkes.RI, 2020b). Data from the World Health Organization (WHO) in 2016 shows that the average breastfeeding rate in the world is around 38%. In Indonesia, as many as 96% of women have breastfed a child in their lifetime, however, only 42% received exclusive breastfeeding (PAS, 2018). In 2020 WHO again presented data in the form of breastfeeding rates globally, although there has been an increase, this figure did not increase significantly, namely around 44% of infants aged 0-6 months worldwide who were breastfed during the 2015-2020 period from 50% target of breastfeeding according to WHO. The low level of breastfeeding will have an impact on the quality and vitality of the next generation. Globally in 2019, 144 million children under five are estimated to be stunted, 47 million are estimated to be underweight and 38.3 million are overweight or obese (WHO, 2020). that is about 44% of infants aged 0-6 months worldwide who are breastfed during the 2015-2020 period of the 50% target of breastfeeding according to WHO. The low level of breastfeeding will have an impact on the quality and vitality of the next generation. Globally in 2019, 144 million children under five are estimated to be stunted, 47 million are estimated to be underweight and 38.3 million are overweight or obese (WHO, 2020). that is about 44% of infants aged 0-6 months worldwide who are breastfed during the 2015-2020 period of the 50% target of breastfeeding according to WHO. The low level of breastfeeding will have an impact on the quality and vitality of the next generation. Globally in 2019, 144 million children under five are estimated to be stunted, 47 million are estimated to be underweight and 38.3 million are overweight or obese (WHO, 2020).

WHO (World Health Organization) still recommends breastfeeding during a pandemic because the benefits of breastfeeding substantially exceed the potential risk of transmitting COVID-19 (WHO, 2020). Due to the Covid-19 pandemic, access to essential services such as breastfeeding counseling in hospitals, health clinics or through home and hospital visits has been disrupted. Inaccurate information circulating about the safety of breastfeeding has reduced the number of breastfeeding mothers because mothers are afraid of transmitting the disease to their babies (Kemenkes.RI, 2020). sufficient knowledge of breastfeeding during the covid-19 pandemic (Kusumaningrum, 2021). This shows that there is a change in breastfeeding patterns during the pandemic and a decline in breastfeeding rates.

knowledge factor. Breastfeeding mothers need to understand how to take appropriate actions to prevent the transmission of covid-19, while protecting babies from potential COVID-19 attacks. The pandemic condition makes breastfeeding mothers psychologically worried that breastfeeding can transmit the virus to their babies. Attitude factors, the attitude of breastfeeding mothers will be followed or not by behavior based on direct experience, because attitudes are formed from experience through a social learning process. Through social interaction can change mindsets and influence mothers in determining attitudes (Kemenkes.RI, 2020a). The current condition of the COVID-19 pandemic will make breastfeeding mothers take an attitude related to efforts to control and prevent the potential for the spread of COVID-19 to their babies during the breastfeeding process (Kemenkes.RI, 2020b).
Mothers suspected of being infected with COVID-19, who decide to breastfeed directly at the breast, must wear a surgical mask and wash their hands before breastfeeding. If the mother chooses not to breastfeed directly, she must wear a surgical mask and wash her hands before pumping or giving expressed breast milk and during close contact with the baby (Kemenkes.RI, 2020b).

Sociodemographic factors that have a significant relationship with the success of mothers in breastfeeding are maternal age and maternal employment status. These two factors have a negative relationship with the success of mothers in breastfeeding. The results show that increasing maternal age increases the frequency of breastfeeding failure (Kurniawan, 2013: 238-239).

Psychosocial factors such as support from husbands, families and health workers also contribute to influencing breastfeeding patterns for their babies. It is evident that many studies have shown that there is a significant relationship between the support received by mothers during lactation and the success of exclusive breastfeeding, such as the research conducted by Norlina (2019) at the South Alalak Health Center Banjarmasin, where there were 90.9% of mothers who received exclusive breastfeeding. do not get the support of husbands do not breastfeed their babies. The support provided by the husband, such as a form of affection and attention, can launch a reflex to release breast milk (let down reflex) which is strongly influenced by the emotional state and feelings of the mother (Roesli, 2012 in Rosida, 2020).

The support that mothers get from health workers also has an important role for the success of breastfeeding because health workers are the front line in providing valid information about breastfeeding that accompanies mothers from pregnancy to post partum and breastfeeding (Young, 2019).

Based on the 2018 Indonesian health profile, the coverage of infants at the provincial level who are breastfed in Indonesia is 68.74% while the coverage for the province of West Sumatra is still below the accumulated coverage of Indonesian breastfeeding by province, which is 68.11%. (Indonesian health profile 2018).

The coverage of breastfeeding in Padang City in 2017 was more than 90%, namely Alai Health Center, Pemancungan Health Center and Pemancungan Health Center and the lowest coverage was in the Andalas Health Center working area, namely 59.84% (Health Profile of Padang City in 2017). In 2018, the Andalas Public Health Center was still the lowest in terms of breastfeeding coverage compared to 22 other health centers in Padang City, namely 58.79%, a decrease compared to the previous year (Padang City Health Profile 2018).

A global pandemic or epidemic indicates a very fast Covid-19 infection that almost no country or region in the world is spared from the corona virus. One of the sectors affected is family resilience. It is hoped that the Covid-19 pandemic situation in Indonesia will not scare mothers or stop breastfeeding. Currently the government has taken various measures to stop the spread of the corona virus. The current pandemic situation is certainly a challenge for breastfeeding mothers. Until now, the existence of the Covid-19 virus in breast milk has not been scientifically proven. WHO (worldHealth Organization) still recommends breastfeeding because the benefits of breastfeeding substantially outweigh the potential risk of transmitting COVID-19 (WHO, 2020). Due to the Covid-19 pandemic, access to essential services such as breastfeeding counseling in hospitals, health clinics or through home and hospital visits is compromised. Inaccurate information circulating about the safety of breastfeeding has reduced the number of breastfeeding mothers because mothers are afraid
of transmitting diseases to their babies (Kemeskes.RI, 2020).

Based on the recapitulation of breastfeeding for infants 0-6 months in the work area of the Andalas Health Center in 2019, which was collected collectively in February and August, the coverage of breastfeeding in the Andalas Health Center working area is still relatively low at 58% in February and increased to 72, 5% in August. Although there was an increase in August, however, this was still not optimal considering that there were still many other Puskesmas in Padang City which had reached their maximum target and their achievements were above the Andalas Health Center, such as Pemancungan Health Center and Padang Pasir Health Center which had reached 100% in breastfeeding. (Data on recapitulation of breastfeeding at Andalas Health Center and Health Profile of Padang City in 2019).

Based on the description above and several other journals and references that researchers have read about the importance of breastfeeding and maternal breastfeeding patterns during the pandemic, researchers are interested in examining this topic in this study with the title "Analysis of factors that influence breastfeeding patterns during the COVID-19 pandemic. year 2021".

II. METHOD

The research design used is Correlative Analytical with a Cross Sectional approach conducted in the City in 2021. The sample in this study used purposive sampling, namely mothers who breastfeed during the Covid-19 pandemic. Data will be analyzed in univariate and bivariate using chi-square analysis (p < 0.05) and multivariant analysis.

III. RESULTS

Characteristics of Respondents

Table 1. Frequency Distribution of Respondents Characteristics

<table>
<thead>
<tr>
<th>Characteristics of Respondents</th>
<th>Frequency (n=97)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother's Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 20 years</td>
<td>3</td>
<td>3.1</td>
</tr>
<tr>
<td>20-35 years old</td>
<td>72</td>
<td>74.2</td>
</tr>
<tr>
<td>&gt; 35 years old</td>
<td>22</td>
<td>22.7</td>
</tr>
<tr>
<td>Mother's Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tall</td>
<td>49</td>
<td>50.5</td>
</tr>
<tr>
<td>Currently</td>
<td>40</td>
<td>41.2</td>
</tr>
<tr>
<td>Low</td>
<td>8</td>
<td>8.2</td>
</tr>
<tr>
<td>parity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>82</td>
<td>84.5</td>
</tr>
<tr>
<td>&gt;3</td>
<td>15</td>
<td>15.5</td>
</tr>
</tbody>
</table>

From the table above, it is known that the majority of respondents are in the age of 20-35 years, which is around 74.2%. From the table it is known that the majority of respondents have a higher education level, which is around 50.5%. From the table it is also known that the majority of respondents have parity 3 which is about 84.5%.
Table 2. Knowledge of Breastfeeding Patterns during the Covid-19 Period

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency (n=97)</th>
<th>Percent age (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well</td>
<td>91</td>
<td>93.8</td>
</tr>
<tr>
<td>Enough</td>
<td>6</td>
<td>6.2</td>
</tr>
<tr>
<td>Not enough</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Based on the table above, it is known that the majority of respondents have good knowledge about breastfeeding patterns during the Covid-19 period, which is around 93.8%.

Table 3. Mother's Attitude Regarding Breastfeeding Patterns during the Covid-19 Period

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency (n=97)</th>
<th>Percent age (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>87</td>
<td>89.7</td>
</tr>
<tr>
<td>Negative</td>
<td>10</td>
<td>10.3</td>
</tr>
</tbody>
</table>

Based on the table above, it is known that the majority of respondents have a positive attitude regarding breastfeeding patterns during the Covid-19 period, which is around 93.8%.

Table 4. Employment Status

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency (n=97)</th>
<th>Percent age (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working</td>
<td>69</td>
<td>71.1</td>
</tr>
<tr>
<td>Doesn't work</td>
<td>28</td>
<td>28.9</td>
</tr>
</tbody>
</table>

From the table above, it is known that the majority of respondents have jobs, which is around 71.1%.

Table 5. Breastfeeding Patterns During Covid-19

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency (n=97)</th>
<th>Percent age (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate</td>
<td>94</td>
<td>96.9</td>
</tr>
<tr>
<td>Not exactly</td>
<td>3</td>
<td>3.1</td>
</tr>
</tbody>
</table>

From the table above, it is known that the majority of respondents have the right breastfeeding pattern (on demand during Covid-19).

Bivariate Analysis
This analysis aims to determine the relationship between the independent variable (the pattern of breastfeeding during Covid-19) and the dependent variable (education, occupation, knowledge, and attitude). This study uses non-parametric statistical analysis with the Kruskal Wallis test with Assymp Sig (0.05), where the Kruskal Wallis test is an alternative to the one way annova test if the data distribution is not normally distributed.

<table>
<thead>
<tr>
<th>Kruskal Wallis Test Table</th>
<th>Level of education</th>
<th>Type of work</th>
<th>Knowledge Questionnaire</th>
<th>Attitude Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>2.052</td>
<td>2.132</td>
<td>3.891</td>
<td>0.352</td>
</tr>
<tr>
<td>df</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Assymp. Sig.</td>
<td>0.152</td>
<td>0.144</td>
<td>0.049</td>
<td>0.553</td>
</tr>
</tbody>
</table>

Based on the results of the Kruskal Wallis test, of the 4 variables that are associated with breastfeeding patterns during Covid-19, only the knowledge variable has an Assymp sig = 0.049 (< 0.05), it can be concluded that there is a difference between a person's level of knowledge on breastfeeding patterns during Covid-19.

While the education, work and attitude variables have an Assymp Sig value > 0.05 which means there is no difference between education, work and attitudes with breastfeeding patterns during Covid-19.

Multivariant Analysis

<table>
<thead>
<tr>
<th>Table 1. Multivariate Test</th>
<th>Effect</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>Pillai's Trace</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Wilks' Lambda</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Hotelling's Trace</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Roy's Largest Root</td>
<td>.000</td>
</tr>
</tbody>
</table>

The table above explains that the comparative test was taken from the average component of education level, type of work, knowledge questionnaire, attitude questionnaire and breastfeeding pattern during the pandemic. There are statistical tests namely Pillai's Trace, Wilks'Lambda, Hotelling Trace, Roy's Largest Root.

Significant study results by Pillai's Trace, Wilks'Lambda, Hotelling Trace, Roy's Largest Root procedures. The significant result was 0.000, where 0.000 < 0.05 according to the criteria that H0 (rejected) Ha (accepted), then the independent variable (breastfeeding pattern during the Covid-19 pandemic) showed an influence on the dependent variable (education level, type of work, questionnaire knowledge, attitude questionnaire).

Table 2. Test of Between Subject Effects
<table>
<thead>
<tr>
<th>Source</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breastfeeding</td>
<td>1.343</td>
<td>0.249</td>
</tr>
<tr>
<td>Pattern</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of education</td>
<td>2.158</td>
<td>0.145</td>
</tr>
<tr>
<td>Type of work</td>
<td>1.529</td>
<td>0.219</td>
</tr>
<tr>
<td>Knowledge Questionnaire</td>
<td>0.733</td>
<td>0.394</td>
</tr>
<tr>
<td>Attitude Questionnaire</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the table above, it is significant that all variables associated with breastfeeding patterns show $> 0.05$, it can be concluded that the level of education, type of work, knowledge questionnaire, attitude questionnaire showed no effect on the variable breastfeeding pattern during the covid-19 pandemic.

IV. DISCUSSION

Characteristics of Respondents

From the research that has been done, the results obtained that the majority of respondents are in the age of 20-35 years as much as 74.2% of the total sample of respondents. Meanwhile, those from <20 years old were only 3.1%. And respondents who have an age $> 35$ years as much as 22.7%.

Then the results of the study also showed that the majority of respondents had a higher education level, which was around 50.5%. While those from moderate education were 41.2%. And from the low category of education as much as 8.2%.

From this study it can also be seen that the majority of respondents have parity 3 which is about 84.5%. While the data of respondents who have parity <3 as much as 15.5%. The results of a preliminary study at the posyandu in Kerjen village, Srengat sub-district, Blitar district, 85% of mothers who have babies aged 0-6 months have given breast milk to babies but less than 30% who give exclusive breastfeeding to infants under the age of 6 months, in fact more breastfeeding mothers who give breastfeeding. Breastfeeding for babies is giving breast milk but accompanied by artificial foods other than breast milk or formula milk. Mothers who do not give exclusive breastfeeding are more common in mothers who are over 35 years old and primiparous, from 7 mothers who do not give exclusive breastfeeding, 5 of them are over 35 years old with details of 3 primiparas and 2 multiparas.

In contrast to the results of Hanifah’s research, Astuti & Susanti (2017) showed that the greatest frequency of breastfeeding mothers who did not give exclusive breastfeeding were mothers in the age range of 20-35 years and were multiparous but in this study only included mothers who did not exclusively breastfeed without comparing with the frequency of mothers who have the type of breastfeeding.

The age of 20-35 years is the productive age range which should be the most ideal age for reproduction so that the ability to breastfeed is optimal. Age above 35 years is a period with a high risk of pregnancy and childbirth, so it is considered that the ability to breastfeed has also decreased along with the aging of organ systems. Meanwhile, at the age of less than 20 years, the reproductive organs are still in their infancy (immature), psychologically they are also considered not ready to become mothers so that it will interfere with the process of exclusive breastfeeding (Hardiani, 2017).

There are many reasons why mothers do not exclusively breastfeed their babies. There is a tendency for groups of mothers with a certain parity and age range to be more successful in providing exclusive breastfeeding until the baby is 6 months old. Physical and emotional maturity that does not give the opportunity for underage mothers to become a vulnerable group to
experience exclusive breastfeeding failure, however, young mothers have better breastfeeding abilities than older mothers (Roesli, 2010).

Univariate Analysis
Knowledge of Breastfeeding Patterns during the Covid-19 Period

Based on the results of research conducted, it is known that the majority of respondents have good knowledge about breastfeeding patterns during the Covid-19 period, which is around 93.8%. Parents' knowledge and understanding of breastfeeding patterns during a pandemic for children greatly influences their child's growth and development and their future. Therefore, parents need to be given knowledge about breastfeeding patterns during the Covid-19 pandemic. In line with the results of research conducted by Kusumaningrum (2021) it was found that mother's education and attitudes played a role in breastfeeding patterns during the pandemic, but it was also found that these factors were related to information or education provided by health workers in increasing mother's knowledge of breastfeeding.

Research conducted by Brown and Shanker (2020) on breastfeeding mothers in the United Kingdom also obtained the same results, namely the continuity of breastfeeding during the pandemic with various restrictions imposed, influenced by education level, low economic level and ethnic background. This result has similarities with Kusumaningrum (2021), namely the education factor also plays a role in supporting mothers to breastfeed during the Covid-19 pandemic, and another factor is the nationally enforced policy (Maya, 2021 and Walusa, 2021), also includes policies given to breastfeeding mothers in their workplaces (Maya, 2021). Factors that cause a decrease or difference in the prevalence of maternal knowledge about breastfeeding can be caused by several factors, including the environment and education. According to Notoadmodjo (2010), generally, the higher a person's education, the easier it is to get information and ultimately affect a person's behavior.

Aritonang's research (2020) that knowledge is the most important thing in determining a person's actions or behavior, if someone has good knowledge about something then dominant has good attitudes and actions as well. Breastfeeding mothers who have higher education and work, this affects one's knowledge, understanding and experience. The higher the education of breastfeeding mothers, the better the knowledge and understanding of breastfeeding mothers about efforts to improve health and milk production. According to Riyanto (2013) that knowledge is very closely related to education where it is expected that someone with higher education will have wider knowledge.

Mother's Attitude Regarding Breastfeeding Patterns during the Covid-19 Period

Based on the results of the study, it was found that the majority of respondents had a positive attitude regarding breastfeeding patterns during the pandemic, which was around 89.7%. Attitude is the mother's willingness to react to certain objects as a form of appreciation by accepting, responding, respecting and being responsible (Azwar, 2016). The formation of attitudes is due to human interaction with certain objects and social interactions within and within groups (Fatwiany, 2020). The current state of the COVID-19 pandemic will make breastfeeding mothers take an attitude related to efforts to control and prevent the potential for the spread of COVID-19 to their babies during the breastfeeding process. The attitude of breastfeeding mothers will be followed or not by behavior based on direct experience, because attitudes are formed from experience from the social learning process.

The results of research by experts show that there is a strong relationship between attitudes and actions. Attitudes have a very big influence in human life and greatly determine a person's actions (Ratna Prahesti, 2018). Attitudes greatly affect a person's response to social problems, including problems in breastfeeding during a pandemic. A person who has a positive attitude
towards an object is likely to have the intention to act positively towards the object, and the positive attitude arises based on the thoughts and knowledge of the object.

**Job status**

Based on the results of the study, it was found that the majority of respondents had jobs, which was around 71.1%. According to Sattari et al in 2013 revealed that the mother's work showed a significant relationship with breastfeeding patterns during the covid-19 pandemic. The need for workplace evaluation to promote and next steps in the development of evidence-based health policy changes to improve breastfeeding. According to Ghosh et al in 2006 revealed that the mother's work has a significant relationship with breastfeeding patterns, where it was found that the breastfeeding pattern was not appropriate and the frequency of breastfeeding was less in mothers who worked all the time, this was because mothers spent most of the time in the tea garden for 8 hours and do not breastfeed their babies, because they are not allowed to carry their babies during working hours.

According to research conducted by Fitri Al Vianita (2019), one of the factors that hinders breastfeeding is the status of working mothers, especially if the mother does not have knowledge about breastfeeding. The reasons that usually arise are the lack of time to give breast milk directly, heavy workload, working hours that are not suitable for breastfeeding, the distance from the workplace that is far from where you live, the mother does not know how to express breast milk, how to store breast milk and how to give expressed breast milk (Vianita, 2019).

This is in line with a study conducted in China which showed that work-related factors such as very dense and less flexible working hours, lack of maternity leave, and the absence of a special room for breastfeeding pose considerable challenges for working mothers (Chen et al., 2019). In particular, knowledge and experience as well as workplace factors are the main drivers of breastfeeding by mothers (Abekah-Nkrumah, Antwi, Nkrumah, & Gbagbo, 2020).

According to Novita 2008 showed that mother's occupation was not related to exclusive breastfeeding. Motivation and strong intention to exclusively breastfeed is one of the factors related to the success of exclusive breastfeeding in addition to support from family and the environment.

According to Soetjiningsih, in 1997, working mothers were one of the causes of mothers breaking up in exclusive breastfeeding because the mother spent more time in the office or place of work so she had to be separated from her baby for a while. Although in this study there was no significant relationship between work and exclusive breastfeeding. This may be because knowledge about exclusive breastfeeding for working mothers is better than for non-working mothers, so working mothers continue to exclusively breastfeed their babies with correct knowledge about breastfeeding and expressing breast milk.

**Breastfeeding Pattern**

Based on the results of the study, it was found that the majority of respondents had the right breastfeeding pattern, namely 96.9%. WHO (World Health Organization) recommends breastfeeding mothers to exceed the potential risk of transmission of COVID-19 (WHO, 2020). Due to the COVID-19 pandemic, access to services such as breastfeeding counseling has been disrupted. Failure to breastfeed is influenced by factors not breastfeeding the baby due to not breastfeeding, psychology, physical, socio-cultural, husband support and support from health workers (Hartyono and Setianingsih, 2014).

The COVID-19 pandemic has had an impact on the success of breastfeeding mothers, including access to essential services such as breastfeeding counseling in hospitals and health clinics, and inappropriate information circulating about the safety of breastfeeding because mothers are afraid of passing the disease on to their babies (Yunitha, 2020).
face support, lack of social support, stress in caring for other children and work problems (Brown & Shenker, 2021).

Based on the results of research conducted in the UK regarding the experience of breastfeeding during the pandemic, it is said that there are more challenging and worrying experiences regarding the safety of breastfeeding babies (Brown & Shenker, 2021). Breastfeeding mothers can still breastfeed as long as they comply with the guidelines issued by the Ministry of Health. According to the Ministry of Health, breastfeeding mothers are advised to frequently wash their hands with water and soap or use hand sanitizer with alcohol before touching the baby and frequently clean frequently touched surfaces using a disinfectant (Kemenkes, 2020). The Ministry of Women's Empowerment and Child Protection of the Republic of Indonesia (KPPPA RI) has also issued guidelines for breastfeeding in the COVID-19 pandemic situation, including using masks when breastfeeding, washing hands before and after touching babies.

Mothers are worried that breastfeeding can transmit the COVID-19 virus to their children. This causes unstable psychological conditions that will affect the mechanism of breast milk production (Widaryanti, 2021).

**Bivariate Analysis**

This analysis aims to determine the relationship between the independent variable (the pattern of breastfeeding during Covid-19) and the dependent variable (education, occupation, knowledge, and attitudes). This study uses non-parametric statistical analysis with the Kruskal Wallis test with Assymp Sig (0.05), where the Kruskal Wallis test is an alternative to the one way annova test if the data distribution is not normally distributed.

Based on the results of the Kruskal Wallis test, of the 4 variables that are associated with breastfeeding patterns during Covid-19, only the knowledge variable has an Assymp sig = 0.049 (< 0.05), it can be concluded that there is a difference between a person's level of knowledge on breastfeeding patterns. during Covid-19.

While the variables of education, work and attitude have an Assymp Sig value > 0.05 which means there is no difference between education, work and attitude with the pattern breastfeeding during Covid-19.

A global pandemic or epidemic indicates a very rapid Covid-19 infection that almost no country or region in the world is spared from the corona virus. One of the sectors affected is family resilience. One of the ways to maintain family resilience is by continuing to breastfeed during a pandemic. (Widaryanti Rahayu, 2021). This actually makes breastfeeding mothers afraid to breastfeed their babies. The current pandemic situation is certainly a challenge for breastfeeding mothers. Until now, the existence of the Covid-19 virus in breast milk has not been scientifically proven. WHO (world Health Organization) still recommends breastfeeding because the benefits of breastfeeding substantially outweigh the potential risk of transmission of COVID-19 (WHO, 2020).

Based on research conducted by Kusumaninggrum (2021) which states that there is a relationship between knowledge and breastfeeding patterns during the COVID-19 pandemic, this shows that knowledge is a factor that supports breastfeeding mothers in changing breastfeeding behavior patterns during the pandemic. Knowledge of breastfeeding during a pandemic is related to motivation to breastfeed as well as controlling and preventing the risk of transmission of COVID-19 during the breastfeeding process. Based on the results of research (Amran and Amran, 2013) states that behavior based on good knowledge will be more lasting than behavior that is not based on knowledge. Knowledge about breastfeeding during a pandemic is very important to learn because information about breastfeeding patterns is an internal factor that affects the appropriateness of breastfeeding behavior during the pandemic.

The results of this study are in line with Aritonang's research (2020) that knowledge is the most important thing in determining a person's actions or behavior, if someone is well-informed...
about something then dominant has good attitudes and actions. Find out about this disease and efforts to improve health and breast milk production as a step to prevent and increase stamina to stay healthy and remain able to breastfeed during the pandemic.

In addition, Setyorini and Wulandari (2017) state that the higher a person's education, the more that person tries to have more insight, while someone with a low level of education has lower access to health-related information so that sometimes they do not know the situation and developments that occur in the world. Based on the results of research, theory and previous research, the researcher argues that education can affect a person's knowledge, where the higher a person's education level is, the higher the level of knowledge is expected.

Knowledge is one of the most important things to pay attention to, especially during a pandemic in the context of handling COVID-19 cases. Public knowledge, especially in improving health and preventing the transmission of the SARS-CoV-2 virus, is very useful in suppressing the transmission of the virus (Law, Leung, & Xu, 2020). By having good knowledge of something, a person will have the ability to determine and make decisions on how he can deal with it (Purnamasari, Ika; Raharyani, 2020).

Most of the respondents in this study had good knowledge about efforts to improve health and breast milk production. This is influenced by factors of age, education and work. Where most of the respondents are in the healthy reproductive age range, have high school and university education and work. Age is one of the factors that reflect a person's level of maturity both physically, psychologically and socially. The older a person gets, the more knowledge and experience they gain. The older a person is, the more information they have so that mothers have good knowledge regarding efforts to improve health and breast milk production and help mothers to stay healthy while breastfeeding during a pandemic.

Breastfeeding mothers who have higher education and work, this affects one's knowledge, understanding and experience. The higher the education of breastfeeding mothers, the better the knowledge and understanding of breastfeeding mothers about efforts to improve health and milk production. According to Riyanto (2013) that knowledge is very closely related to education where it is expected that someone with higher education will have wider knowledge. According to Olum et al (2020) stated that continuing professional education is needed to increase knowledge and change negative attitudes and promote even better prevention and treatment practices.

Kusumaningrum's research (2021) found that mother's education and attitudes played a role in breastfeeding patterns during the pandemic, but it was also found that these factors were related to information or education provided by health workers including health cadres to increase mother's knowledge of breastfeeding. Research conducted by Brown and Shanker (2020) on breastfeeding mothers in the United Kingdom reports that the continuity of breastfeeding during the pandemic with various restrictions imposed is influenced by education level, low economic level and ethnic background. This result has similarities with Kusumaningrum (2021), namely the education factor.

Another factor that also plays a role in supporting mothers to breastfeed during the Covid-19 pandemic is the policies implemented nationally (Maya, 2021 and Walusa, 2021), also including policies given to breastfeeding mothers in their workplaces (Maya, 2021).

V. CONCLUSION

Based on the objectives of the research regarding the analysis of factors that influence breastfeeding patterns during the COVID-19 pandemic in 2021, the following conclusions can be drawn:

1. Most of the respondents are 20-35 years old, parity 3, and have a higher education level (University).
2. Most of the respondents have good knowledge about breastfeeding patterns during the Covid-19 period (93.8%).
3. Most of the respondents had a positive attitude regarding breastfeeding patterns during the COVID-19 period (93.8%).
4. Most of the respondents have a job (71.1%).
5. Most of the respondents had the right breastfeeding pattern (o demand) during covid-19.
6. There is a difference between a person's level of knowledge about breastfeeding patterns during covid-19, while there is no difference between education, work, and attitudes with breastfeeding patterns during covid-19.
7. Based on the Multivariant test, it was found that there was an influence on the level of education, type of work, knowledge questionnaire, attitude questionnaire with breastfeeding patterns during the pandemic.
8. Based on the between-subject effects test, it was found that the level of education, type of work, knowledge questionnaire, attitude questionnaire showed no effect on breastfeeding pattern variables during the covid-19 pandemic.

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