



## Relationship Between Stress Levels and the Success of Exclusive Breastfeeding in the Work Area of Turi Community Health Center, Lamongan District

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### ABSTRACT

Exclusive breastfeeding for the first six months of a baby's life is a vital recommendation from WHO to support the growth and health of babies. However, the success rate of exclusive breastfeeding in Indonesia is still relatively low. Factors that play a role in this low figure include maternal stress levels. The purpose of this study was to analyze the relationship between stress levels and the success of exclusive breastfeeding. The study was conducted in December 2024 involving mothers who had babies aged 6-8 months. Using total sampling by collecting data through a survey with a cross-sectional approach. The results of the study stated that 32.88% of mothers experienced normal stress, 46.58% experienced mild stress, and 20.55% experienced moderate stress. The success of exclusive breastfeeding was recorded only in 19.2% and 80.8% of mothers provided non-exclusive breastfeeding. Statistical analysis using the Fisher Exact Test confirmed that there was a significant relationship between stress levels and type of breastfeeding, with a p value = 0.026 (<0.05). This study shows that maternal stress levels are significantly related to the success of exclusive breastfeeding in the working area of Turi Health Center, Lamongan Regency. This conclusion provides insight for health practitioners and public health policies in designing breastfeeding support programs, which require interventions to reduce maternal stress as an effort to increase the success of exclusive breastfeeding

## **INTRODUCTION**

Breast milk (ASI) is a fluid produced by the mother's mammary glands, which is naturally adjusted to meet the nutritional needs of the baby. ASI is the main source of nutrition for newborns, functioning not only as food intake but also as protection against various infectious diseases. ASI provides immunological components, hormones, and bioactive substances that are essential for the physical and neurological development of the baby (Arum & Widiyawati., 2017).

ASI production is greatly influenced by psychological factors. When breastfeeding, a mother needs peace of mind and should be free from feelings of stress because it will affect the production of ASI and the comfort of the baby while breastfeeding. Mothers who are always anxious, lack confidence, and feel stressed may affect breastfeeding their babies (Bayu M, 2017).

ASI is recommended for up to two years or more. ASI is still given after the baby is 6 months old because at the age of 6-8 months, 65% of the baby's energy needs still come from ASI. At the age of 9-12 months, around 50% of energy needs are obtained from breast milk, while at the age of 1-2 years, the figure drops to around 20% (Ministry of Health, 2020). It is unfortunate that in Indonesia, in reality, the use of breast milk is not as recommended. Globally, only 44% of babies under the age of six months receive exclusive breastfeeding (WHO, 2021). In Indonesia, the coverage of exclusive breastfeeding in 2022 was recorded at 67.96%, a decrease from 69.7% in 2021 according to WHO data (WHO, 2023). Based on data from the National Socioeconomic Survey (Susenas) of the Central Statistics Agency (BPS), the percentage of babies receiving exclusive breastfeeding in East Java increased from 69.61% in 2021 to 69.72% in 2022, and 72.68% in 2023 (BPS, 2024). Specifically in Lamongan Regency, the coverage of exclusive breastfeeding in Lamongan District is estimated to reach 86.48%, while in Turi District it is recorded at 80.8% based on data from the Lamongan Regency Health Office profile (BPS, 2018).

This study was conducted based on an initial survey conducted at the Cut Nyak Dien Posyandu, Sukorejo Village in August, from 10 mothers who were breastfeeding 0-6 months. It was found that 30% of mothers only gave breast milk without other food and drinks. Various factors influence breast milk production, including breastfeeding frequency, birth weight, gestational age when the baby was born, maternal age, parity, stress, acute illness, Early Initiation of Breastfeeding (IMD), the presence of smokers around, alcohol consumption, breast care, use of contraceptives, and maternal nutritional status (Dewi, 2019).

Psychological stress in mothers is often associated with insufficient breast milk during the breastfeeding process. Stress in the early stages of breastfeeding can be triggered by the baby's medical health condition, the mother's lifestyle, and conditions during pregnancy. Therefore, it is important for mothers to prepare good mental health before giving birth, so that they are emotionally ready when facing the process of childbirth and breastfeeding. Research shows that stress can directly affect the quality and quantity of breast milk, and many breastfeeding failures are related to stress factors in mothers (Puspita Sari H, 2015). Based on the background description above, the researcher is interested in

conducting research related to "The Relationship between Stress Levels and the Success of Exclusive Breastfeeding in the Turi Health Center Work Area, Lamongan Regency."

## LITERATURE REVIEW

Based on the literature review that has been conducted in several studies, several data were obtained through previous studies that describe the factors that influence the success of exclusive breastfeeding.

Table 1. Factors that Influence the Success of Exclusive Breastfeeding

No	Title	Author	Year	Summary
1	Factors that influence the success of exclusive breastfeeding in working mothers	N. Janah, Bela Purnama Dewi	2012	Support from superiors has no relationship to the success of exclusive breastfeeding ( $p=0.225$ ), availability of facilities has a relationship to the success of exclusive breastfeeding ( $p=0.033$ ) and support from coworkers has no relationship to the success of exclusive breastfeeding ( $p=0.726$ ) to the success of exclusive breastfeeding.
2	Factors influencing the success of exclusive breastfeeding in children at wangaya regional hospital	Bella Kurnia	2019	The Availability Of Information Factor Influences Exclusive Breastfeeding
3	Factors influencing the success of exclusive breastfeeding for 6 months in mothers with babies aged 6-12 months in kemantren village, jabung district, malang regency	Sariati	2017	Of the four variables studied, only the mother's level of knowledge about breast milk had an influence on the provision of exclusive breast milk, so it is necessary to carry out promotional efforts for mothers before pregnancy and their families regarding the importance of breast milk.

**METHODOLOGY**

This study used an analytical survey research design with a cross-sectional approach. This approach allows researchers to measure the independent variable (stress level of breastfeeding mothers) and the dependent variable (success of exclusive breastfeeding) simultaneously at one point in time.

The population in this study were all mothers who had babies aged 6-8 months in the working area of the Turi Health Center, Lamongan Regency, totaling 73 people. The sampling technique used the total population so that the number of samples in this study was 73 respondents.

This study will be conducted in the working area of the Turi Health Center, Lamongan Regency, which was chosen because of the high prevalence of breastfeeding mothers who do not provide exclusive breastfeeding during the first six months of the baby's life. The research period is planned to take place from November to December 2024.

**RESULTS**

Based on the results of the research conducted, the following results were obtained:

Table 2. Frequency Distribution of Stress Levels of Mothers with Babies Aged 6-8 Months

No	Stress Level	frequency	Percentage
1	Normal	24	32.88%
2	Mild Stress	34	46.58%
3	Moderate Stress	15	20.55%
4	Heavy Stress	0	0 %
5	Very Severe Stress	0	0 %
<b>Total</b>		<b>73</b>	<b>100%</b>

Table 3. Distribution of Success of Exclusive Breastfeeding in Mothers with Babies Aged 6-8 Months

No	Exclusive Breastfeeding Status	Frequency	Percentage
1	Exclusive	14	19.2%
2	Not Exclusive	59	80.8%
<b>Total</b>		<b>73</b>	<b>100%</b>

Table 4. Distribution of the Relationship between Stress Levels and the Success of Exclusive Breastfeeding

No	Stress level	Exclusive Breastfeeding	Non - Exclusive Breastfeeding	Total	p-value
1	Normal	9 (37.5%)	15 (62.5%)	24	0.026*
2	Light Stress	4 (11.76%)	30 (88.24%)	34	
3	Moderate Stress	1 (6.67%)	14 (93.33%)	15	
4	Heavy Stress	0 (0%)	0 (0%)	0	
5	Very Heavy Stress	0 (0%)	0 (0%)	0	
<b>Total</b>		<b>14 (100%)</b>	<b>59 (100%)</b>	<b>73</b>	

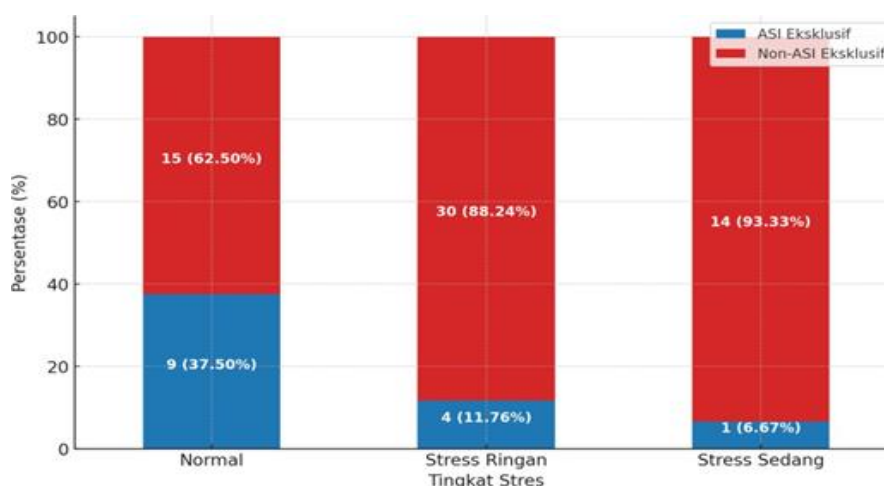


Figure 1. Diagram of the Relationship Between Stress Levels and Success of Exclusive Breastfeeding

## DISCUSSION

Most respondents were between 20-29 years old. Researchers argue that age is related to psychological stress experienced by a person. Judging from the average age of respondents who are still quite young, the coping mechanism when experiencing stressors in their lives is certainly not yet very well developed because it is still in the development stage. This is reinforced by the results of a study by Puspita Sari, H. (2015), which stated that age is a risk factor for stress levels in postpartum mothers in the Sukorambi Health Center work area with a P value of 0.001.

Respondent parity data, almost half of the respondents' children are 1 child. According to the National Family Planning Coordinating Agency (BKKBN), 2015 parity refers to the number of live births a woman has. Psychological stress is often experienced by mothers due to the adjustment period to the new role as a mother. Postpartum stress often occurs in primiparous mothers, where mothers begin to try to meet their own child's needs without the help of others. (Agustini, 2018).

Psychological stress is more common in primiparous women compared to multiparous and grande multiparous women, this can occur due to experience factors from previous childbirth. Primiparous women are more likely to suffer from postpartum stress compared to multiparous and grande multiparous

women, this occurs because after giving birth, primiparous women for the first time will experience an adaptation process with various changes. (Sari H, 2015). Respondent education data shows that almost all respondents have a high school/vocational high school education background. Researchers argue that the level of education will affect a person's stress level, where the level of education a person has will affect the way a person perceives stressors. The higher a mother's knowledge about the many risks that can occur if she does not breastfeed her baby also increases the mother's anxiety.

According to Sari, H. (2015), when individuals perceive stressors to have bad consequences, the level of stress felt will be even heavier. Conversely, if the stressor is perceived as not threatening and can be overcome, the level of stress felt will be lighter. This is in accordance with research conducted by Putri, M. (2023) which states that a person's education level has a significant relationship with stress levels for women. The majority of mothers who experience stress come from secondary education groups. Education affects how mothers manage stress. (Rahmaniasari, 2024).

In this study, stress levels were influenced by several factors including age, parity and education. Interventions that can be carried out include initiating programs that can provide psychological support and education about stress management for breastfeeding mothers. Almost all respondents did not breastfeed exclusively. This shows that mothers' awareness of providing exclusive breastfeeding to their children is still low. The low awareness of mothers is influenced by many factors including parity and education. It can be concluded that there are still many primiparous mothers who do not breastfeed exclusively.

The results of Trisnisari's study, A. (2019) showed that most primiparous mothers did not breastfeed exclusively, namely 42.9%, while most multiparous mothers breastfed exclusively 35.7%. The tendency of primiparous mothers not to provide exclusive breastfeeding is higher than multiparous mothers. This is related to breastfeeding experience. Breastfeeding mothers who are inexperienced or have never had contact with a newborn tend to have problems adjusting to breastfeeding efforts.

In this study, many mothers with high school education did not provide exclusive breastfeeding. According to Darsini (2019), one of the factors that influences knowledge is education. Education means direction or guidance given by someone to another person so that the person can understand something or knowledge that is given. Someone with a high education tends to be easier to accept and understand information so that the more knowledge they have. Conversely, if someone has a low education, it will be more difficult or inhibiting in accepting information. Education is a basic effort to become a personality and ability inside and outside of school and lasts a lifetime.

This is also in accordance with Sukarni's theory (2019) which states that education is directly related to a person's knowledge so that it is assumed that the higher a person's level of education, the more knowledge a person is expected to increase. A low level of knowledge indicates that respondents lack information or health education. Education affects basic thinking skills in making decisions,

including decisions related to exclusive breastfeeding. Low education where mothers assume that if their babies are only given breast milk, they will not be full so they are given formula milk. (Trisnisari, A. 2019).

This study underlines the importance of intervention among breastfeeding mothers as an effort to increase the level of exclusive breastfeeding, namely by providing counseling in mother classes or other events. Most mothers who have babies aged 6-8 months in the Turi Health Center area. using the Fisher Exact Test. This study shows a significant relationship between maternal stress levels and the success of exclusive breastfeeding. The data obtained show that the higher the stress level, the lower the percentage of maternal success in exclusive breastfeeding.

The results of the study are in line with previous studies that have identified a relationship between stress and the inability to breastfeed exclusively. This study is in line with the study of Aminah et al, 2024 from Banda Aceh which showed that 84.9% of mothers who experienced mild stress succeeded in providing exclusive breastfeeding, while 60.7% of mothers with moderate stress and 100% of mothers with severe stress did not provide exclusive breastfeeding. Statistical analysis showed a significant negative relationship between stress levels and the success of exclusive breastfeeding. Similar results were also shown by other studies (Tari, 2022; Rahmaniyasari and Zhafirah, 2024) which emphasized the relationship between stress levels and exclusive breastfeeding. Maternal psychological disorders, including excessive stress, anxiety, and depression, have been seen as obstacles to breastfeeding. Stress can reduce maternal motivation and consistency in breastfeeding, which are essential factors for the success of exclusive breastfeeding. Stress is often associated with social and economic factors that are closely related to maternal health (Nagel et al., 2022).

Physiologically, stress can also interfere with the release of the hormone oxytocin, which plays a vital role in pumping muscles that help release breast milk during breastfeeding. In addition, increased cortisol levels due to stress can reduce the hormone prolactin by reducing insulin sensitivity and changing the hormonal balance needed for lactation. High maternal stress levels also show inhibitory activity against the activation of secretory cells which are very important for forming breast milk production after delivery (Ziomkiewicz et al., 2021).

Maternal stress not only affects the duration, frequency, and intensity of breastfeeding. Stress can also affect the composition of breast milk. Studies have shown that higher maternal stress is correlated with lower fat and energy content in breast milk. Especially chronic stress can cause changes in milk composition, resulting in decreased energy density and fat levels, which are very vital for infant nutrition. (Matyas et al., 2024).

In addition to stress, of course there are many other factors that affect the success of exclusive breastfeeding. Factors such as education, socioeconomic status, maternal physical condition, and maternal age at the time of breastfeeding have been known to influence exclusive breastfeeding (Putri et al., 2023; Mastan & Achadi, 2021; Pradanie, 2019). In this study, researchers managed to collect

data on the basic characteristics of the sample including maternal age, educational status, and number of children from most of the samples. This study was dominated by subjects with high school/vocational high school education status (83.6%). This explains the trend of exclusive breastfeeding which is generally still low in the subjects of this study. In addition, in terms of parity, almost all of the subjects of this study were mothers aged 20-29 years (64.4%) with one child (49.3%) so that it is possible that it will have implications for the low breastfeeding experience of the mother. This also indicates that the results of this study cannot necessarily be generalized to the entire population. These various factors are also limitations in this study, namely the presence of confounding factors that were not controlled in the statistical analysis. The findings of this study underscore the importance of interventions aimed at reducing stress among breastfeeding mothers as an effort to increase the level of exclusive breastfeeding, which has been known to play an important role in child development. Interventions that can be carried out include initiating programs that can provide psychological support, education on stress management, and training health workers to provide better emotional support to breastfeeding mothers.

## **CONCLUSIONS AND RECOMMENDATIONS**

There is a significant relationship between stress levels and the success of exclusive breastfeeding in this study. Increasing education and assistance for mothers from pregnancy to breastfeeding needs to be continuously carried out and improved both in basic and higher services.

## **FURTHER STUDY**

Further research is expected to be able to explore other factors that can increase the success of exclusive breastfeeding in accordance with current developments.

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