

## Correlation between employment status and income level of mothers with exclusive breastfeeding

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### Abstract

**Introduction:** Ideally, breastfeeding should begin within one hour of birth and continue for the first six months of life. The percentage of female workers in Indonesia increases year after year, and the country already has an exclusive breastfeeding policy. However, exclusive breastfeeding coverage remains relatively low. The mother's role in exclusive breastfeeding can be influenced by a number of factors. The study aims to determine the correlation between exclusive breastfeeding with employment status and the income level of mothers in Tambak Wedi Public Health Centre in Surabaya.

**Methods:** Observational analysis with cross-sectional approach. The research population is in the area of Tambak Wedi Public Health Centre Surabaya. It Covers 114 mothers with babies aged 6-12 months old obtain from a non-probability sampling technique. Variables included exclusive breastfeeding status, employment status, and income level. The research instrument was a questionnaire and was analyzed using chi-square with a significant degree of  $< \alpha 0,05$ .

**Results:** Of 114 mothers, 84 mothers provide exclusive breastfeeding, and 30 mothers not exclusively breastfeeding their babies. The analysis showed there is a correlation between employment status (p-value= 0,00) and income level (p-value= 0,00) of mothers with exclusive breastfeeding.

**Conclusion:** The mother's employment status and income level positively affect exclusive breastfeeding practice in Tambak Wedi Public Health Centre Surabaya.

**Keywords:** Exclusive breastfeeding; Breastfeeding factors; Employment status; Income level

### 1. Introduction

Based on data from Studi Status Gizi Indonesia (SGGI) by Kementerian Kesehatan Republik Indonesia in 2021, it is estimated that only 52.5% of infants in Indonesia between the ages of 0 and 5 months are exclusively breastfed, or only half of the 2.3 million infants in this age group. This percentage has decreased by 12% since 2019 [1]. The World Health Assembly (WHA) issued A resolution 65.5 in 2012, which established a comprehensive implementation plan for maternal, infant, and child nutrition, along with six global nutrition targets for 2025. The fifth goal of this policy brief is to elevate the percentage of exclusive breastfeeding to at least 50% at 6 months. However, based on data from UNICEF Global Databases in 2021, is stated that there are 44% of babies aged 0-5 months are exclusively breastfed in the world and this number is still quite far from the target set by the WHA.

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In addition to progress toward other global nutrition targets, increasing the prevalence of exclusive breastfeeding is among the most powerful strategies we have to enhance public health and the economics (such as stunting, anemia in women of reproductive age, low birth weight, obesity, and underweight in children). Based on SSGI 2021, which reveals that the prevalence of stunting in Indonesia is 24.4% while the WHO standard is 20%, it can be concluded that Indonesia is in the category of countries with high stunting problems.

Exclusive breastfeeding by mothers can be influenced by several things, according to the PRECEDE-PROCEDE theory by Green and Kreuter (1991), three factors can influence a person's behavior, predisposing factors, enabling factors, and reinforcing factors [2]. Predisposing factors are internal factors or individuals such as knowledge, attitudes, beliefs, values, and norms). Enabling factors are factors that facilitate individual behavior such as availability, affordability, and access. Meanwhile, reinforcing factors are factors that encourage or strengthen behavior, such as health workers, family, or influential decision-makers. In exclusive breastfeeding, mothers have several risks such as a lack of breastfeeding intensity, an unhelpful mother's economy, inadequate breastfeeding facilities, misinformed health workers, and an unsupportive family [3-5].

Data from Badan Pusat Statistika discovered that there has been an increase in the number of female workers from 2018-2019. The percentage of women's worker has increased from 38.10% in 2018 to 39.19% in 2019. Currently, there have been several studies that state that mothers who work outside the home, especially full-time jobs, as having adverse effects on breastfeeding duration. The previous study conducted by Kimbro (2006) showed that women who plan to return to work have a high risk of not continuing to breastfeed their babies as much as 1.34 times compared to mothers who do not plan to continue working after giving birth. Mothers who have returned to work have 2.18 times the chance to stop breastfeeding [6].

The disparity in the prevalence of continued breastfeeding is not limited to countries or regions. In all areas, prairies continue breastfeeding higher among babies living in low economic households than those with high-economy families. In general, income can affect breastfeeding by using knowledge and attitudes as a marker, since women with higher income are perceived to be able more to afford food supplies for infants. Mothers with lower income usually feel inadequate to purchase a supply of infant food (such as formula), thus optimizing breastfeeding in an exclusive six months [7].

According to data from Riset Kesehatan Daerah (RIKESDA) Surabaya in 2019, 14.114 babies were exclusively breastfed out of a total of 19.473 babies aged <6 months in Surabaya. The lowest proportion number is in the Tambak Wedi Health Centre in Surabaya with a proportion of 20% of an infant aged <6 months who are exclusively breastfed, there were a total of 95 babies and only 19 babies who were exclusively breastfed. Hence, based on the above description, this study is needed on what factors are at risk of encouraging failure of exclusive breastfeeding to find the right solution to the problem of mothers' lack of exclusive breastfeeding.

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## 2. Methods

This study is an observational analytic cross-sectional study. The research location is in the Tambak Wedi Health Center, Surabaya. After obtaining consent from all parties involved, this research was conducted between August 2021 and September 2022. The population in this study consisted of all mothers with babies aged 6–12 months who resided in the Tambak Wedi Health Center Surabaya area, a total of 160 mothers. The inclusion criteria for this study were mothers who could read and write as well as mothers who were in good physical and mental health. Mothers with children older than 12 months and mothers who were unwilling to participate in the study were excluded from it. 114 samples were obtained after using the Slovin formula to estimate the number of samples.

Proportionate Stratified Random Sampling was used to conduct the sampling at the Tambak Wedi Health Center in Surabaya. The dependent variable referred to in this study is exclusive breastfeeding by mothers. The independent variables referred to in this study are the employment status and income level of the mother. A questionnaire was used as the research instrument, and it contained questions about the relationship between exclusive breastfeeding and the mother's employment status and income level. With the help of SPSS software, the data results will be examined using the Chi Square statistical test.

### 3. Result and discussion

**Table 1** Characteristic of the respondent

Characteristics	n	%
Age		
20-35	94	82.5
>35	20	17.5
Education		
Primary school	36	31.6
Junior high school/equal	23	20.2
High school/equal	44	38.6
Bachelor/diploma	11	9.6
Occupation		
Civil servant	1	0.9
Housewife	87	76.3
Entrepreneur	5	4.4
Private – employee	13	11.4
Other	8	7
Husband's occupation		
Civil servant	9	7.9
Entrepreneur	5	4.4
Private – employee	69	60.5
Other	31	27.2
Husband's education		
Primary school	23	20.2
Junior high school/equal	26	21.9
High school/equal	54	47.4
Bachelor/diploma	11	9.6
TOTAL	114	100

In table 1, most of the respondents were mothers aged 20-35 (82.5%), most of the mother's last education was high school/equivalent (38.6%), the mother's occupation was mostly housewives (76.3%) the most husband's job is an entrepreneur (60.5%), the most husband's education is high school/equivalent (47.4%).

**Table 2** Exclusive breastfeeding

Category	n	%
Provide exclusive breastfeeding	84	73.7
Not provide exclusive breastfeeding	30	26.3

The results in table 2 show that there were 73.7% of the respondents provide exclusive breastfeeding to their babies.

In table 3, the analysis of the correlation between exclusive breastfeeding and the mother's employment status revealed that 65 respondents (57%) of non-working mothers exclusively breastfed their babies, while 22 respondents (19.3%) did not exclusive breastfeeding their babies.

**Table 3** The correlation between exclusive breastfeeding and the employment status of mothers in the Tambak Wedi Health Center, Surabaya

Employment status	Exclusive breastfeeding				Total		p	Cramer's Value
	Yes		No					
	f	%	f	%	f	%		
Working	19	16.7	8	7	27	23.7	0.00	0.685
Not Working	65	57	22	19.3	87	76.3		
Total	84	73.7	30	26.3	114	100		

The results of the chi-square statistical test revealed that  $H_0$  was rejected because  $p$ -value = 0.00 ( $\leq \alpha$  0.05), indicating that mother's employment status in Tambak Wedi Health Center in Surabaya is only partially relevant to exclusive breastfeeding. The Cramer's correlation coefficient test resulted in a value of 0.680, indicating that there was a positive correlation between the mother's employment status and exclusive breastfeeding by mothers at the Tambak Wedi Health Center in Surabaya.

**Table 3** The correlation between exclusive breastfeeding and income level of mothers in the Tambak Wedi Health Center, Surabaya

Income level	Exclusive breastfeeding				Total		p	Cramer's Value
	yes		No					
	f	%	f	%	f	%		
<UMK	69	60.5	23	20.2	92	80.7	0.00	0.550
>UMK	15	13.2	7	6.1	22	19.3		
Total	84	73.7	30	26.3	114	100		

Based on the classification of family income levels through the decision of the Governor of East Java Number 188/803/KPTS/013/2021 UMK (*Upah Minimum Kabupaten/kota*) Surabaya 2022 is IDR 4,375,479 per month

In table 4, the analysis of the correlation between exclusive breastfeeding and the mother's family income revealed that 69 respondents (60.5%) with family income less than IDR 4,375,479 per month who gave exclusive breastfeeding to their babies, while 23 respondents (20.2%) mothers did not give exclusive breastfeeding to their babies. The Cramer's correlation coefficient test resulted in a value of 0.550, indicating that there was a positive correlation between the mother's employment status and exclusive breastfeeding by mothers at the Tambak Wedi Health Center in Surabaya.

### 3.1. The Correlation between Employment Status and Exclusive Breastfeeding by Mothers in Tambak Wedi Health Center, Surabaya

The results of the study with the chi square test revealed that the  $p$ -value = 0.00 ( $\leq \alpha$  0.05), indicating a correlation between mother's employment status and exclusive breastfeeding at the Tambak Wedi Health Center, Surabaya. The findings of this study are consistent research conducted by Laksono et al (2021) which discover that mothers who do not work tend to provide exclusive breastfeeding more frequently than mothers who do. Working mothers typically have less free time and chance to interact with their children, including breastfeeding. This study also mentions that breastfeeding can be maintained with support such as flexible work hours and close proximity to the workplace<sup>7</sup>. Policies promoting a supportive breastfeeding environment in the workplace should be implemented. The lack of legal protection for mothers who work on a contract basis necessitates additional care. While mothers who are not working, they have more time to spend with their babies and can breastfeed them as needed. Mothers who frequently breastfeed their children can keep their milk supply and benefit directly for their babies and themselves [8].

Nowadays the economic burden on the family is not only the responsibility of the husband, the mother also has an important role in the family economy. This can be seen from Survei Angkatan Kerja Nasional (Sakernas) that the percentage of working mothers in Indonesia has increased from 34.6% in 2019 to 36.20% in 2022. According to

research conducted by Syah A and Hidir A (2019) concerning the role of the mother in increasing family income, it is stated that the mother has an important position in the household, namely being a husband's partner at work. By working, a mother can contribute, although not that big, it can help the income of the family where previously their life needs were not met properly but after working their life needs can be met, although not so much [9]. In this global era, there are many choices and supports for mothers to give exclusive breastfeeding to their babies, such as support from a work environment that provides breastfeeding facilities for employees and also tools that can help mothers make it easier to continue breastfeeding without having to breastfeed directly like a breast pump [10].

In Indonesia itself, some laws support breastfeeding by mothers in the workplace. Freedom for mothers to breastfeed is regulated in Article 83 of the Labor Law No. 13 of 2013 which states that women workers/workers whose children are still breastfeeding must be allowed appropriate to breastfeed their child if it has to be done during work time. This can be an opportunity for mothers to continue to be able to provide the benefits of breastfeeding to their babies [11]. Article 30 (Workplaces and Public Facilities) paragraphs 1 and 2 of government regulation No. 33 of 2012 regarding exclusive breastfeeding state that workplace administrators and organizers of public facilities must support exclusive breastfeeding programs, and provisions regarding work program support must be carried out under company regulations between employers and workers or cooperation agreements between workers and employers. Paragraph 3 also explains that work agencies and organizers of public facilities must provide special facilities for breastfeeding or expressing breast milk under the conditions of the company's capabilities [12].

### **3.2. The Correlation between Income Level and Exclusive Breastfeeding by Mothers in Tambak Wedi Health Center, Surabaya**

The results of the study with the chi-square test showed that  $p\text{-value} = 0.00 (\leq \alpha 0.05)$ , which means that there is a correlation between level income and exclusive breastfeeding by mothers in the Tambak Wedi Health Center, Surabaya. According to the data collected, out of 114 mothers, 69 (60.5%) exclusively breastfed their infants and had a family income below the UMK (Upah Minimum Kota) Surabaya in 2022, which is IDR 4,375,479. This demonstrates that the majority of mothers believe that continuing to exclusively breastfeed will result in significant cost savings over not exclusively breastfeeding. Exclusive breastfeeding is thought to be more practical and easier for mothers, in addition to being more economical. Additionally, breast milk is a great source of nutrition and can deepen the bond between mother and child. The finding of this study is consistent with the research of Gayatri M (2021) which discovered that mothers from low socio-economic status prefer to provide exclusive breastfeeding for their babies because families with low incomes have limited material resources to buy alternative food for other babies. choose to exclusively breastfeed. Meanwhile, families with high incomes have access to higher education and higher opportunities for better jobs [13].

Breastfeeding is more dominant in low and middle-income countries than in high-income countries, and its prevalence correlates inversely with national gross domestic product. Because of their higher purchasing power, better educated mothers in low to middle-income countries tend to favor not to breastfeed and instead pay a little extra for breastmilk substitutes [14]. Similar to the mother's occupation, the economic level of the family also affects exclusive breastfeeding. Breastfeeding is more common among mothers from lower economic backgrounds, as they may not have alternatives to feed their babies. On the other hand, mothers from families who are more affluent can buy complementary foods if they do not have adequate knowledge and other breastfeeding support conditions [15]. Exclusive breastfeeding has been shown to have positive economic effects on low- and middle-income countries as well as high-income countries through improvements in adult IQ and income as well as savings on national health care. In order to support mothers, healthcare professionals, communities, and families must all contribute to the promotion of breastfeeding during the first and second years of a child's life. Only low-income countries have close to 100% breastfeeding rates at 12 months, which could be due to ingrained cultural practices rather than breastfeeding promotion initiatives [16-19].

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## **4. Conclusion**

This study concludes there is a significant relationship between the mother's employment status and income level with exclusive breastfeeding for mothers at the Tambak Wedi Health Center in Surabaya. Mothers who do not work and mothers who have low-income levels have a positive correlation with exclusive breastfeeding by mothers in the Tambak Wedi Health Center, Surabaya.

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## Compliance with ethical standards

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### *Disclosure of conflict of interest*

No conflict of interest is to be disclosed.

### *Statement of informed consent*

Informed consent was obtained from all participants in present study.

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