

The relationship between household activities and the exclusive breastfeeding period in mothers breastfeeding babies aged 6-12 months in Sumberpucung Village, Malang regency

Nur Kholifatur Rizkiyah^{1*}

¹Institut Ilmu Kesehatan STRADA Indonesia, Indonesia; ifachannel69@gmail.com (N.K.R.).

Abstract: Household activities are a number of activities that must be completed by someone who is a housewife. The impact is a lack of time to rest, if experienced by mothers who are breastfeeding, this will cause milk production to decrease due to work fatigue. If a breastfeeding mother experiences work fatigue, there will be a blockade of the letdown reflex. An imperfect letdown reflex will cause a buildup of milk in the alveoli, this is due to the release of adrenaline (epinephrine) which causes vasoconstriction of the alveolar blood vessels so that it will inhibit oxytocin from reaching the target organs of the myoepithelium. So breastfeeding mothers need to have time to rest. This study aims to determine the relationship between household activities and the breastfeeding period in mothers breastfeeding babies aged 6-12 months. The method used is correlation analysis with cross sectional ratio. The research sample was 45 mothers breastfeeding babies aged 6-12 months in Sumberpucung Village, Malang Regency in May 2018. The instruments used were the Harvard Scale family activity profile sheet and interview guide. The research results showed that the majority of respondents, 75.5%, were in the heavy work category (>10 hours/day) and 80% were not exclusively breastfed. The data was analyzed using Spearman Rank correlation, the results obtained were an rho value of -0.387, meaning there was a significant relationship between household activities and the period of exclusive breastfeeding. To overcome the impact of household activities on the exclusive breastfeeding period, it is hoped that you can manage your time between doing household chores, especially during the exclusive breastfeeding period.

Keywords: *Breastfeeding period, Household activities, Impact of lack of breast milk.*

1. Introduction

A woman is an inseparable part of a family, has the status of a husband's companion, and has a very important role in family life. Mothers as parents who educate children, are the first caregivers before entering formal education, which is very important in the development and growth of all children's potential. Mothers as household organizers play a managing/management role, namely arranging and planning household needs, living simply, not being stingy, and oriented towards the future. Women must also be able to look after, maintain, manage the household, and create family peace [1].

Nearly every woman does taking care of the household without getting a wage or salary, for example: preparing food, cleaning the house and looking after children and other family members. However, some of the work carried out by women is almost never appreciated because these jobs are considered not as important as the work of a man [2].

In January-March 2016, the number of Indonesian labor force fell to 127.67 million people, from 128.3 million people in January-March 2015. According to the Central Statistics Agency (BPS), the decline in the number of labor force was due to the large number of female residents changed profession to become a housewife. So, the decline in the number of the workforce is due to the transition from the

working population to not working, because they only take care of the household [3]. According to data from the National Statistics Agency in February 2017, there was an increase in the number of family workers (unpaid) in main employment status aged 15 years and over, namely 18,164,654, compared to previously in August 2016 there were 16,272,212 residents. Meanwhile, the type of activity of the population over 15 years of age in the non-labor force, one of which is taking care of the household in February 2016 was 36,158,428 and increased in August 2016 to 39,335,203 but decreased in February 2017 to 36,078,772.

According to data from the National Central Bureau of Statistics in February 2017 according to the grouping of working hours for residents aged 15 years and over who work during the week in terms of age group and overall working hours, there was an increase in working hours of 75+ during the previous week in August 2016 and February 2017. The average age ranges from 15 years to 60+ years and the maximum number of working hours is 75+ per week [4].

Meanwhile, at a workshop in India, men and women were asked to write a list of their daily tasks. Many are surprised to learn that women's work begins long before men start working and ends long after men stop working, and women rarely have the opportunity to rest. This helps men to realize the unequal distribution of work between men and women [2].

A woman's physical fatigue and lack of sleep due to household activities can turn into excessive anxiety and fear and can result in stress. If this fatigue occurs in a mother during breastfeeding, she needs time to rest from heavy household work so as to avoid stress because a breastfeeding mother who experiences stress will disrupt her breast milk production.

According to research Dhaniala, et al. [5] work load or activities are a number of activities that require mental processes or abilities that must be completed within a certain period of time, both in physical and psychological form. Based on Mumtahinnah's research, the higher the stress experienced by housewives, the higher the aggression carried out, this is due to the many demands as a housewife's responsibilities with work that tends to be monotonous because it takes place every day with unlimited working hours.

Continuous household activities by breastfeeding mothers can cause stress. Stress can come from a lot of monotonous and complex work so that rest time is reduced or even non-existent. Activities that should bring happiness, such as breastfeeding a baby, can also cause stress due to new changes coupled with household activities that burden a woman. Excessive fatigue, if left unchecked, will affect breast milk production, thereby impacting the baby's breastfeeding period.

Coverage of exclusive breastfeeding in Indonesia in 2013 only reached 30.2%, still far from the national target of 80%. Based on research conducted in developing countries, it shows that babies who are not given breast milk have a 6-10 times higher risk of dying in the first few months of life. This will have an impact on increasing the Infant Mortality Rate (IMR).

Based on research results from the World Breastfeeding Trends Initiative (WBTi) [6] only 27.5% of mothers in Indonesia have succeeded in providing exclusive breastfeeding for 6 months. 2013 Basic Health Research data shows that breastfeeding coverage in Indonesia is only 42%. With these results, Indonesia is ranked 49th out of 51 countries that support exclusive breastfeeding [7].

A person's job status indicates that they are a housewife with many tasks including cooking, washing, taking care of children and husband. This results in fatigue or tiredness in the mother which triggers a decrease in breast milk production. Mothers who experience stress will experience a blockade of the letdown reflex. This is due to the release of adrenaline (epinephrine) which causes vasoconstriction of the alveolar blood vessels so that it inhibits oxytocin from reaching the target organs of the myoepithelium. An imperfect letdown reflex will cause a buildup of milk in the alveoli which clinically appears as enlarged breasts. The mother's job influences exclusive breastfeeding [8].

Several efforts are made so that breastfeeding mothers can provide exclusive breast milk for 6 months even though they do continuous household work. It is better for the husband or family to provide time or leeway for mothers who breastfeed their babies, for example giving breastfeeding mothers the right in the form of the opportunity to provide breast milk during breastfeeding time,

including sleeping when the baby is sleeping, doing housework with the help of her husband or family, husband or family taking turns looking after the baby while the mother is doing household activities. Breastfeeding mothers should also actively adopt a healthy lifestyle, so as not to experience work stress and fatigue, and ensure that breastfeeding remains smooth so that breastfeeding mothers can continue to support the breastfeeding program, especially exclusive breastfeeding, which is good for children as the nation's next generation.

Based on a preliminary study in Sumberpucung Village, Malang Regency, there were ± 76 mothers breastfeeding babies as housewives who did not work outside the home. Of the mothers breastfeeding babies aged 6–12 months, 7 breastfeeding mothers who filled out the questionnaire found that the mothers experienced heavy work activities.

1.1. Theoretical Review

1.1.1. Definition of Household Activities

Household activities are the activities of managing and running a household based on life values and religious values [9]. According to the Big Indonesian Dictionary (KBBI), a housewife can be defined as a woman who organizes various kinds of household work (does not work in the office).

A housewife is a woman who spends a lot of time at home and dedicates that time to caring for and taking care of her children according to the pattern given by general society. In other languages, it is understood that a housewife is a woman who spends the majority of her time teaching and caring for her children with good and correct parenting [9].

In another sense, it is also stated that a housewife is a mother who plays a role in (1) taking care of the household such as cooking, washing, sweeping and other domestic activities; (2) caring for and educating their children as a group and social role; (3) meeting the effective and social needs of their children; (4) become an active and harmonious member of society in their environment which is manifested in various activities such as PKK, Arisan, Majelis Taklim) (Effendy in Junaedi [9]).

Managing a household is a person's activity without getting paid, for example: housewives and their children who help manage the household. On the other hand, a housekeeper who earns wages even though her job is managing the household is considered to be working. Being a housewife is the realm of actualization of a woman with the strength of dedication and maximum sense of responsibility as well as the sincerity of perfect devotion.

A family/unpaid worker is someone who works to help other people who are doing business without receiving a wage/salary, either in the form of money or goods. These unpaid workers can be members of the household of the person they are helping, such as a wife/child who helps her husband/father working in the fields and is not paid [10].

1.2. Work Ability

Work ability is a person's ability to do work differently from someone else, even though they have the same education and experience, and work on the same job or task. This difference is caused by the different capacities of these people. Capacity is a limited ability that a person is born with. This means that these abilities can develop due to education or experience, but only to a certain extent. So, it can be said that this capacity is a container of abilities that each person has.

Capacity is influenced by various factors, including: maternal nutrition and health, genetics, and the environment. Furthermore, this capacity influences or determines a person's abilities. Apart from capacity, a person's ability to do work is also influenced by education, experience, health, fitness, nutrition, gender and body size. The ability of the workforce is generally measured by their skills in carrying out work. The higher the skills possessed by the workforce, the more efficient the body (limbs), energy, and thinking (mental) in carrying out the work. Efficient use of energy and mental or mental energy means the workload is relatively low.

1.3. Factors influencing Work Activities

Factors that influence work activities according to Rodahl and Manuaba (in Prihatini [11]) state that they are influenced by the following factors:

a. External Factors Come from Outside the Body of Work, Such As:

1. The tasks carried out are of a physical nature such as work stations, spatial layout, workplace, work tools and facilities, working conditions, work attitudes, while tasks of a mental nature such as job complexity, level of job difficulty, job responsibilities.
2. Work organization such as length of working time, rest periods, shift work, night work, wage system, organizational structure model, delegation of duties and authority.
3. The work environment is the physical environment, chemical environment, biological work environment and psychological work environment.

b. Internal Factors are Factors that Originate from Within the Body Itself as a Result of Reactions to External Workloads. The body's reaction is called strain, the severity of the strain can be assessed both objectively and subjectively. Internal factors include:

4. somatic factors (gender, age, body size, nutritional status, health condition)
5. psychological factors (motivation, perception, beliefs, desires and satisfaction).

1.4. Relationship Between Household Activities and Breast Milk Production

Several factors that influence breast milk production include socio-cultural changes, psychological factors, physical factors of the mother, increasing promotion of formula milk, health worker factors, mother's diet, baby's birth weight, use of contraceptives.

Breast milk production is greatly influenced by psychological factors because the mother's feelings can inhibit or increase the release of oxytocin, if the mother is depressed, sad, lacks self-confidence and various forms of emotional tension can reduce breast milk production. So mothers who are breastfeeding should not be burdened too much with household chores, office matters, and so on.

A person's job status indicates that they are a housewife with many tasks including cooking, washing, taking care of children and husband. This results in fatigue or tiredness in the mother which triggers a decrease in breast milk production. Mothers who experience stress will experience a blockade of the letdown reflex. This is due to the release of adrenaline (epinephrine) which causes vasoconstriction of the alveolar blood vessels so that it inhibits oxytocin from reaching the target organs of the myoepithelium. An imperfect letdown reflex will cause a buildup of milk in the alveoli which clinically appears as enlarged breasts. The mother's job influences exclusive breastfeeding [8].

2. Methods

2.1. Research Design

The design of this research is an analytical research method, namely a correlation analytic approach *cross sectional*. In this research, we examine the independent variable, namely household activities, and the dependent variable, namely the breastfeeding period at the same time. In this way, it can be seen the relationship between household activities and the breastfeeding period in mothers breastfeeding babies aged 6-12 months.

2.2. Operational Framework

The operational framework in this research has a population of all mothers breastfeeding babies in Sumberpucung village consisting of 14 posyandu and meeting the inclusion criteria.

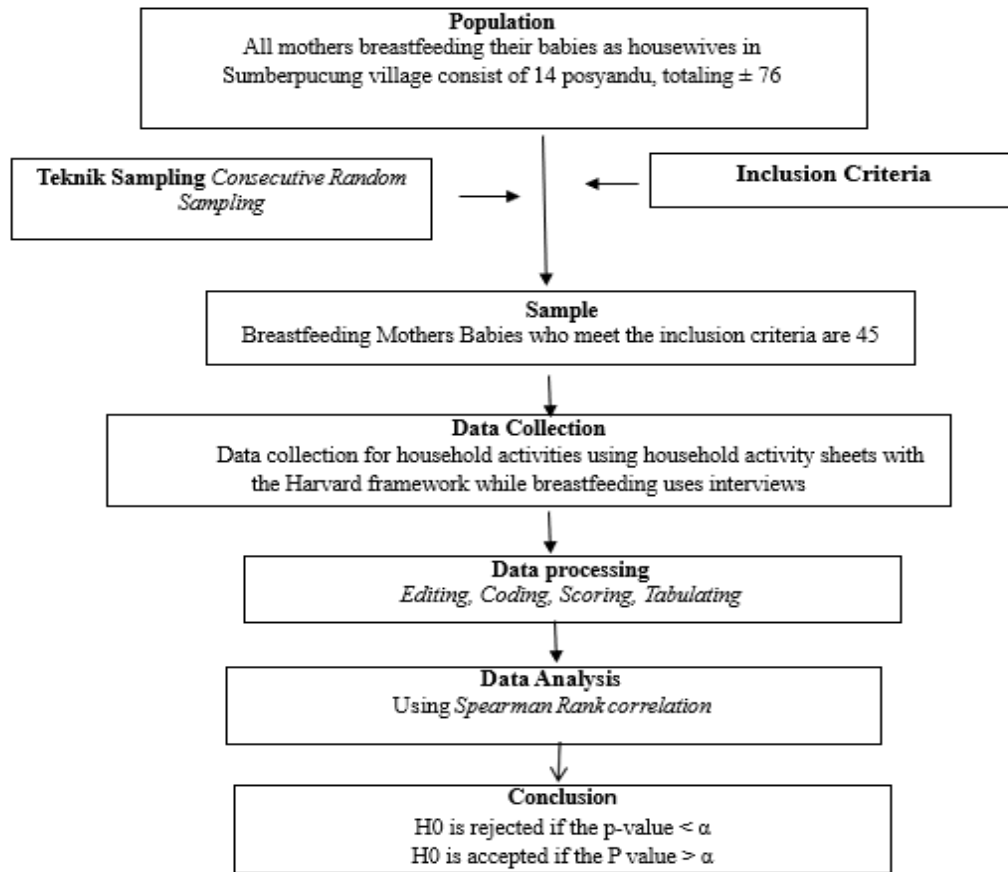


Figure 1.

Operational Framework for the Relationship between Household Activities and Breastfeeding Period in Mothers Breastfeeding Babies Aged 6-12 Months.

2.3. Population

The population in this study were all mothers breastfeeding babies in Sumberpucung village, consisting of 14 posyandu who were only housewives, totaling ± 76.

2.4. Sample

The sample in this study was mothers breastfeeding babies aged 6-12 months in Sumberpucung village which consisted of 14 posyandu that met the inclusion criteria. The samples in this research numbered ± 45.

2.5. Sampling Techniques

The sampling technique in this research uses *Consecutive random sampling*. Researchers simply collect data from the sampling units found.

In this study, the instrument used for household activities was the Harvard Scale questionnaire to obtain data on the total number of working hours (domestic sector) for mothers breastfeeding babies, namely by adding up the total time needed to carry out household activities by the mother herself without the help of other people/ family, and to measure the breastfeeding period using an interview guide by answering the questions asked to obtain a classification of the breastfeeding period for mothers breastfeeding their babies.

3. Result and Discussion

3.1. Results

Research results will be divided into two parts, namely, general data and special data

3.1.1. General Data

3.1.1.1. Characteristics of Respondents Based on Age

Table 1.

Frequency Distribution of Respondent Characteristics Based on Age in Sumberpucung Village, Kab. Malang 2018.

No	Age	f	Percentage (%)
1	< 20 years	1	2.2
2	20 – 35 years	37	82.2
3	> 35 years	7	15.6
Amount		45	100

3.1.1.2. Characteristics of Respondents Based on Education

Table 2.

Frequency Distribution of Respondent Characteristics Based on Education in the Work Area of the Sumberpucung District Health Center. Malang 2018.

No	Education	f	Percentage (%)
1	SD	6	13.3
2	JUNIOR HIGH SCHOOL	16	35.6
3	SMA	20	44.4
4	PT	3	6.7
Amount		45	100

Table 2 shows that almost half of the respondents (44.4%) had high school education and junior high school education (35.6%), a small proportion of respondents (13.3%) had elementary school education and higher education (6.7%).

3.1.2. Custom Data

3.1.2.1. Characteristics of Respondents Based on Number of Working Hours in the Domestic Sector

Table 3.

Frequency Distribution of Respondent Characteristics Based on Number of Working Hours in the Domestic Sector in Sumberpucung Village, Malang, 2018.

No	Number of Working Hours in the Domestic Sector	F	Percentage (%)
1	Light (< 10 hours)	4	8.9
2	Medium (10 hours)	7	15.6
3	Heavy (> 10 hours)	34	75.5
Amount		45	100

Table 3 shows that the majority of respondents (75.5%) have worked hours in the domestic sector in the heavy category, namely more than 10 hours.

3.1.2.2. Characteristics of Respondents Based on Breastfeeding Period

Table 4.

Frequency Distribution of Respondent Characteristics Based on Breastfeeding Period in Sumberpucung Community Health Center Village, Kab. Malang 2018.

No	Breastfeeding Time	F	Percentage (%)
1	Exclusive breastfeeding	9	20
2	Not exclusive breastfeeding	36	80
Amount		45	100

Table 4. shows that most respondents (80%) are not exclusively breastfed and a small number of respondents are 20% exclusively breastfed.

3.1.2.3. Household Activities During Breastfeeding

Table 5.

Cross Tabulation of Household Activities and Breastfeeding Period for Mothers Breastfeeding Babies Aged 6-12 Months in Sumberpucung Village, Kab. Malang 2018.

Household Activities	Breastfeeding Time				Amount	
	Exclusive breastfeeding		Not exclusive breastfeeding		F	%
	f	%	f	%		
Light	3	75	1	25	4	100
Currently	4	57,1	3	42,9	7	100
Heavy	2	5,9	32	94,1	34	100
Amount	9	20	36	80	45	100

Table 5 shows that of the 45 respondents who were breastfeeding mothers, it was found that the percentage with heavy household activities were breastfeeding exclusively breast milk (5.9%) and almost all (94.1%) were breastfeeding not exclusively breast milk. Meanwhile, the majority of respondents with light work activities (75%) breastfed exclusively breast milk and a small number of respondents with light work activities (25%) breastfed not exclusively breast milk.

4. Data Analysis

This research uses the Chi Square test with a computer program, this technique is a statistical test tool used to test the associative hypothesis of two variables with data on an ordinal scale (ranking), namely household activities and a nominal scale, namely breastfeeding period.

The statistical test used is Spearman Rank Correlation with a significance level used of 95% with a significance value of 5%. The results of the Spearman Rank Correlation Analysis showed that $p \text{ value} < \alpha$ ($-0.387 < 0.05$) shows that the heavier the household work activity, the less frequent the breastfeeding period and conversely the lighter the household activity, the higher the breastfeeding period. So, there is a significant relationship between household activities and the breastfeeding period for mothers breastfeeding babies aged 6-12 months, so it can be decided that H_0 is rejected or it can be concluded that there is a significant relationship between household activities and the breastfeeding period.

5. Discussion

Based on the results of hypothesis testing, it is known that there is a significant relationship between household activities and breastfeeding period for mothers breastfeeding babies aged 6-12 months, where the heavier the household activity, the lower the breastfeeding period. So, this shows that household activities have an important meaning during the breastfeeding period.

The heavier the household activity or the longer a person's working time, the more work fatigue will arise. Excessive household activities can cause fatigue, which is a reduction in the body's physical strength or endurance to continue an activity. Rest factors influence breast milk production and

excretion. If the mother is too tired or doesn't get enough rest, breast milk will also decrease, so mothers who are breastfeeding should not be burdened too much with household work.

This is supported by Hardiani [8] who states that a person's employment status indicates that they are a housewife with many tasks including cooking, washing, taking care of children and husband. This results in fatigue or tiredness in the mother which triggers a decrease in breast milk production. Mothers who experience work fatigue will experience a blockade of the letdown reflex. This is due to the release of adrenaline (epinephrine) which causes vasoconstriction of the alveolar blood vessels so that it inhibits oxytocin from reaching the target organs of the myoepithelium. An imperfect letdown reflex will cause a buildup of milk in the alveoli which clinically appears as enlarged breasts. It can be concluded that the mother's job influences exclusive breastfeeding.

One of the causes of reduced breast milk production is psychological factors such as lack of family support, this is one of the causes of failure in exclusive breastfeeding. Most respondents do not work (housewives) while their husbands work outside the city and only come home once a week or every few months. This can trigger internal tension in the mother's body because she handles everything herself or thinks about her husband who is far away.

Breast milk production is greatly influenced by psychological factors. The condition of a mother who is easily anxious and stressed can disrupt lactation so that it can affect breast milk production. This is because stress can inhibit breast milk production. The higher the level of emotional disturbance, the less stimulation the prolactin hormone is given to produce breast milk [12].

A mother's job can affect the smooth flow of breast milk so that mothers must be able to manage their time. It is hoped that this can increase the mother's awareness and ability to manage and use her time, activities or activities as best as possible, implementing working hours and rest periods in accordance with applicable regulations, organizing appropriate rest areas. Pay attention to physical freshness and mental-psychological harmony, use of holidays, recreation and nutritional adequacy, so that good breast milk management can be achieved and breast milk production runs smoothly.

According to the Indonesian Breastfeeding Mothers Association (AIMI), exclusive breastfeeding is giving only breast milk for the first six months without drinks or other additional foods. Exclusive breastfeeding is giving breast milk for 6 months without mixing it with additional liquids such as formula milk, oranges, honey, water, tea and without adding solid foods such as bananas, papaya, milk porridge, biscuits, team rice porridge. After the baby is 6 months old, the baby will start to be given complementary foods, while breast milk can be given for up to 2 years or more.

Based on research data that includes the breastfeeding period, 80% of them are not exclusively breastfed. There are many factors that underlie mothers not giving exclusive breast milk, this is obtained from research results which show the need for support from husbands and families, culture, breast anatomy of breastfeeding mothers (submerged nipples), sore nipples, as well as knowledge of breastfeeding mothers about the importance of exclusive breastfeeding. Many breastfeeding mothers know the importance of exclusive breastfeeding for their babies, but quite a few mothers underestimate giving exclusive breastfeeding to babies.

100% of the respondents in this study were housewives. According to Junaedi [9] a housewife is a woman who spends a lot of time at home and dedicates that time to caring for and taking care of her children according to the pattern given by the general public. In other languages, it is understood that a housewife is a woman who spends the majority of her time teaching and caring for her children with good and correct parenting.

According to research on breastfeeding mothers who carry out household activities or do not work outside the home, of the 45 respondents, only 20% breastfeed exclusively, while the majority of the 80% who breastfeed do not exclusively breastfeed, this proves that household activities can affect a person's physical and psychological well-being. Continuous work fatigue and insufficient rest time will affect breast milk production, so that exclusive breastfeeding cannot be achieved. Mother's behavior regarding household activities in providing exclusive breastfeeding is influenced by age, education, family and cultural factors. Based on the research results, the majority of respondents aged 20-35 years were

82.2%, age is one of the factors that determines a mother's physical readiness, namely in providing breast milk in terms of production.

Based on maternal education, it shows that almost half of the respondents (44.4%) had a high school education and a junior high school education (35.6%), a small proportion of respondents (13.3%) had an elementary school education and a higher education (6.7%). As generally speaking, the higher a person's education, the easier it is to obtain information and ultimately influence a person's behavior. Education also determines a breastfeeding mother's knowledge about matters related to household activities and breastfeeding for babies.

The research results showed that the percentage of respondents with heavy work activities with exclusive breastfeeding (5.9%) and heavy work activities with breastfeeding without exclusive breast milk (94.1%). Based on the results of analysis using the Spearman rank correlation test, the rho value is -0.387, a negative rho value shows that the heavier the household work activity, the lower the exclusive breastfeeding period and conversely, the lighter the household activity, the higher the exclusive breastfeeding period.

6. Conclusion

Breastfeeding mothers with household activities in the domestic sector without household assistants and not working outside the home. In this study, it was found that the majority of respondents had working hours in the heavy category ranging from 10-14 hours per day with activities in the domestic sector amounting to 75.5%. In this study, it was found that 80% of respondents in the breastfeeding category were not exclusively breastfed. The results of the Spearman Rank Correlation Analysis showed that $p \text{ value} < \alpha$ ($-0.387 < 0.05$) shows that the heavier the household work activity, the shorter the breastfeeding period and vice versa. So, there is a significant relationship between household activities and the breastfeeding period for mothers breastfeeding babies aged 6-12 months, so it can be decided that H_0 is rejected or it can be concluded that there is a significant relationship between household activities and the breastfeeding period.

Transparency:

The author confirms that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Copyright:

© 2025 by the author. This open-access article is distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

References

- [1] V. Kumalasari, "Slope stability analysis with soil nailing reinforcement using the Geoslope program," 2012.
- [2] A. Burns, *Women's empowerment in health*. Yogyakarta: ANDI, 2016.
- [3] S. Hasbullah, *Deputy for social statistics*, BPS. Jakarta: detikFinance, 2016.
- [4] BPS RI, "Central statistics agency (BPS-Statistics Indonesia). Jakarta," 2018. <https://www.bps.go.id/id>. [Accessed 7 Februari 2018]
- [5] D. R. Dhanial, F. Suhariadi, F. Fajrianti, and S. Suryanto, "Husband support: supporting or inhibiting personal growth initiative of women leaders," *Journal An-Nafs: Kajian Penelitian Psikologi*, vol. 7, no. 1, pp. 75-87, 2022.
- [6] World Breastfeeding Trends Initiative (WBTi), *WBTi Indonesia report*. New Delhi, India: International Baby Food Action Network (IBFAN) Asia, 2012.
- [7] I. Wattimena, Y. D. W. Werdani, B. D. Novita, and D. Dewi, "Lactation management and well-being of breastfeeding mothers," *Jurnal Psikologi UGM*, vol. 42, no. 3, pp. 231-242, 2015.
- [8] R. S. Hardiani, "The effect of parity status and mother's occupation on breastfeeding knowledge in mothers breastfeeding babies 0-6 months," 2017. <https://www.neliti.com/>. [Accessed 22 April 2018]
- [9] H. Junaedi, "Housewife: Stereotype of unemployed women," 2017. <https://media.neliti.com/media/publications/177482-ID-ibu-rumah-tangga-stereotype-perempuan-pen.pdf>

- [10] Central Statistics Agency (Badan Pusat Statistik - BPS), *Employment statistics report*. Jakarta, Indonesia: Central Statistics Agency, 2016.
- [11] N. Prihatini, *Introduction to occupational health science*. Jakarta, Indonesia: Health Press, 2007.
- [12] A. Amalia, "The influence of psychological factors on breast milk production," Unpublished Thesis, 2016.