

## Research Article

### Relationship Between Maternal Education and Knowledge on Coverage of Exclusive Breastfeeding in Ten Stunting Locus Villages in Pandeglang District, Banten

Sri Wuryanti\*, Himmi Marsiati

Department of Nutrition, Faculty of Medicine, YARSI University Jakarta Pusat 10510 Indonesia

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#### \*Corresponding author:

E-mail:

[sriwuryanti@yarsi.ac.id](mailto:sriwuryanti@yarsi.ac.id)

#### ABSTRACT

**Introduction:** Until now, the practice of exclusive breastfeeding is still far from the national target. The success of exclusive breastfeeding is determined by many factors, including the mother's education, knowledge, and awareness about the importance of breastfeeding for child growth. This study aims to determine the relationship between the mother's level of education and knowledge on exclusive breastfeeding in ten stunting locus villages located in Pandeglang Regency, Banten, Indonesia. **Methods:** This study uses a cross-sectional design with data collection methods through interviews and direct observation. The population consists of mothers who have children under 2 years of age. The study was conducted for 6 months from November 2019. The variables studied included the mother's age, occupation, number of children, education, and knowledge of exclusive breastfeeding. **Result:** As many as 99.6% of respondents have a good level of knowledge about exclusive breastfeeding. The level of education is low at 44.6%, medium at 50.9%, and high at 4.4%. The results showed there was no significant relationship between the mother's last education and exclusive breastfeeding ( $p = 0.860$ ) and there was no significant relationship between the mother's level of knowledge and exclusive breastfeeding ( $p = 0.558$ ). **Conclusion:** No significant relationship was observed between the mother's education and knowledge on exclusive breastfeeding in ten stunting locus villages located in Pandeglang Regency, Banten.

#### Background

Stunting is described as chronic undernutrition status during growth and development since early life. This situation is represented by a z-score of height for age (TB/U) less than -2 standard deviations based on the growth standards of the WHO [1]. Globally, about one

in four children under 5 years old is stunted [2]. Indonesia occupies the fifth position in the number of stunting in the world. Based on the results of basic health research (Riskesdas), the stunting in Indonesian children under 5 years old in 2007, 2010, 2013, and 2018 was 36.8%, 35.6%, 37.2%, and 30.8%, respectively [3].

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Pandeglang Regency is included in 100 districts that are a priority for stunting interventions. In 2018, the prevalence of stunting was 38.5%, which include around 8,303 stunting toddlers [4].

Adequate nutrition is necessary for brain development, especially during pregnancy until the child is 2 years old or the first 1000 days of life (HPK). Nutritional problems, especially stunting in children under 5, can hinder child development and can result in negative impacts in their adulthood life such as intellectual decline, vulnerability to noninfectious diseases, decreased productivity that leads to poverty, and the risk of giving birth to low birth weight baby [1,5].

Stunting is caused by multidimensional factors. The most decisive intervention is in the first 1000 days of birth. Failure to carry out early initiation of breastfeeding (IMD), failure of exclusive breastfeeding, and early weaning are some factors for stunting. Meanwhile, in providing complementary feeding (MPASI), the things that need to be considered are the quantity, quality, and safety of the food provided. Research in Southern Ethiopia proves that toddlers who do not get exclusive breastfeeding for 6 months are at high risk of stunting [6].

Exclusive breastfeeding is breastfeeding without providing other food or drinks to the baby, including water. Breastfeeding has many benefits, such as increasing children's immunity, decreased ear infections, and reducing the frequency of diarrhea and chronic constipation, among others [7]. The importance of exclusive breastfeeding on the nutritional status of children makes the WHO recommend implementing an intervention to increase breastfeeding for the first 6 months as one step in achieving the WHO Global Nutrition Targets 2025 regarding the reduction in the number of stunting in children under 5 years [8].

Susenas and Riskesda's data showed a tendency to decrease exclusive breastfeeding. Riskesda's (2010) data showed that the national average of exclusive breastfeeding is only around 15.3%. Nationally, the coverage of infants receiving exclusive breastfeeding in 2017 was 61.33%, while the government's target was 80%. Based on data from the health department in 2017, the coverage of exclusive

breastfeeding in Banten Province reached 61.6% in 2016, with the lowest in Pandeglang Regency, which was 19.88%. Although these data require validation, it is clear that exclusive breastfeeding coverage is still far from the target. Many factors affect the success of exclusive breastfeeding, including mother and child health factors, economic factors, low education and knowledge of mothers, family support, belief or cultural factors, as well as the widespread promotion of formula milk in the past. According to UNICEF, the rampant promotion of formula milk is an obstacle that causes the promotion of exclusive breastfeeding to be ineffective (out of control). With the inclusion of the Pandeglang Regency area in 100 regencies that are government priorities in stunting interventions in 2018 and the low coverage of exclusive breastfeeding in Pandeglang Regency, the researchers aimed to find out if the mother's education and knowledge were related to exclusive breastfeeding in ten stunting locus villages in Pandeglang Regency, Banten.

## Methods

### *Research design and respondents*

This research is a quantitative analytic study using a cross-sectional design. This was conducted for 6 months in 2019 in ten villages located in Pandeglang Regency, Banten, Indonesia, namely, Tegal Lengok, Keroncong, Pakuluran, Pasirkarang, Kadumaneuh, Bayumundu, Kadugadung, Koncang, Langensari, and Pasirdurung. The sample selection for this research subject used the total sampling method, where all the population in the study was used as research samples. The population consists of mothers who have children under 2 years old (toddler), with a target number of 761 respondents.

### *Collecting data method*

Data were collected by trained enumerators through guided interviews using a questionnaire and direct observation using a checklist. General data collected are age, education, employment status, and number of children. Specific data such as exclusive breastfeeding, weight, the height of their toddler, and mother's knowledge were assessed using a questionnaire containing 20 related questions

about exclusive breastfeeding. Incomplete data were not included in the study.

### Analysis

Data were analyzed using SPSS. This research uses univariate and bivariate analysis with chi-squared test.

### Result

The total number of respondents with children under the age of 5 and who completely filled out the questionnaire is 742 respondents. Table 1 presents the number of toddlers from each village. Pakuluran Village had the most number of toddlers, (115 toddlers; 15.5%), while Tegalongok Village had the least number of toddlers (40 toddlers; 5.4%).

Table 1. Distribution of the number of toddlers in ten stunting locus villages located in Pandeglang Regency, Banten

No	Villages	Amount (n)	Percentage (%)
1.	Bayumundu	59	8
2.	Kadugadung	53	7.1
3.	Kadumaneuh	89	12
4.	Koncang	89	12
5.	Keroncong	61	8.2
6.	Langensari	81	10.9
7.	Pakuluran	115	15.5
8.	Pasirdurung	93	12.5
9.	Pasirkarang	62	8.4
10.	Tegalongok	40	5.4
Total		742	100

### Characteristics of respondents

Table 2 presents the characteristics of respondents with several factors that influence exclusive breastfeeding. Of the respondents, 60.6% are between 20 and 30 years.

Respondents who work as housewives or do not work outside the home accounts to 89.1%. As many as 65.4% have less than two children. Furthermore, respondents who have children with good nutritional status accounts to 79.8%.

Table 2. Characteristics of respondents

No.	Characteristics	Amount (n)	(%)
1.	Mothers age		
	<20 years	24	3.2
	20-30 years	450	60.6
	>30 years	268	36.1
2.	Job-status		
	Work	81	10.9
	Does not work	661	89.1
3.	Number of children		
	≤2 children	485	65.4
	>2 children	257	34.6
4.	Toddler nutritional status		
	Good nutrition	592	79.8
	Malnutrition	150	20.2

### Respondent's knowledge level about exclusive breastfeeding

The mother's level of knowledge is assessed based on the questionnaire with 20 questions. Each question had a score of 1–4, namely, disagree, undecided, agree, and strongly agree. These questions relate to general knowledge about breastfeeding. The level of respondents' knowledge is categorized as good if the total score is 40, and <40 is categorized as bad. Table 3 presents the characteristics of respondents based on their level of knowledge about exclusive breastfeeding, which shows that 99.6% of

respondents in this study had good knowledge about exclusive breastfeeding and only 0.4% had poor knowledge about exclusive breastfeeding. A total of 519 toddlers (69.9%) received exclusive breastfeeding, while as many as 223 toddlers did not receive exclusive breastfeeding. This means that as many as 30.1% of children under 2 have been given complimentary feeding before the age of 6 months. Furthermore, the results of this study showed no significant relationship was observed between a mother's level of knowledge and exclusive breastfeeding ( $p = 0.558$ ).

Table 3. Relationship between mother's knowledge level on exclusive breastfeeding coverage

Knowledge about breastfeeding	Exclusive breastfeeding coverage		Knowledge about breastfeeding	Exclusive breastfeeding coverage		Knowledge about breastfeeding	p-value
	Yes (n)	No (%)		Yes (n)	No (%)		
Good	516	69.8	Good	516	69.8	Good	0.558*
Not good	3	100	Not good	3	100	Not good	
Total	519	69.9	Total	519	69.9	Total	

Note: \*, bivariate analysis with Fisher's exact test.

### Education Level respondent

Based on the last education level of the respondents (Table 4), the majority have a junior high school or a high school education, and the equivalent is 50.9%, only 4.4% of respondents have higher education (college or college graduate) and respondents with low education (elementary school graduates or lower) as much as 44.6%. The results of this study indicate that there is no significant relationship between a mother's last education and exclusive breastfeeding ( $p = 0.860$ ).

Many factors determine the success of exclusive breastfeeding, including socioeconomic factors (mother's formal education, family income, and mother's work status), physiological factors (fear of losing attractiveness as a woman, mental stress), maternal physical factors (moderate mothers, such as mastitis and so on), deficiency factors health workers so that the public lacks information or encouragement about the benefits of offering exclusive breastfeeding.

Table 4. Relationship of mother's last education to coverage of exclusive breastfeeding

Mother's last education	Exclusive breastfeeding coverage		Mother's last education	Exclusive breastfeeding coverage		Mother's last education	p-value
	Yes (n)	No (%)		Yes (n)	No (%)		
Low	235	71	Low	235	71	Low	0.860*
Medium	261	69	Medium	261	69	Medium	
High	23	69.7	High	23	69.7	High	
Total	519	70	Total	519	70	Total	

## **Discussion**

Based on anthropometric data, as many as 79.8% of children under 2 years had good nutritional status (Table 2). This can be attributed to the small number of children (not more than 2 as many as 65.4%), which can be considered good because it provides opportunities for mothers to give more attention. Besides, it allows parents to meet the needs of food intake for children's growth and development. Breastfeeding in infants is closely related to the condition of undernutrition and overnutrition in children. Breast milk is the most important source of energy and nutrition for children aged 6–23 months. Breast milk fulfills more than half of the energy needs of children aged 6–12 months and one-third of the energy needs of children aged 12–24 months. It is also an important source of nutrition in the healing process when a child is sick [9].

The level of knowledge of most of the mothers who became respondents in this study was classified as good, with only three respondents having poor knowledge (Table 3). Mother's knowledge factor is one of the factors influencing mothers to not give exclusive breastfeeding. This knowledge can be acquired both formally and informally. A mother's formal education will affect the level of nutritional knowledge, that is, the higher the mother's education, the higher the ability to absorb practical knowledge and formal education. However, from this group of mothers with good knowledge, 30.2% did not give exclusive breastfeeding. Based on statistical analysis, no significant relationship was observed between the mother's level of knowledge and the level of exclusive breastfeeding. This study is in line with research conducted in Sidoarjo, which stated that there was no significant relationship between a mother's knowledge, education, and practice of exclusive breastfeeding [10].

The results of this study are not in line with research at Batua Health Center, Makassar, which indicates that the better the mother's knowledge, the higher the practice of exclusive breastfeeding [11]. The mother's low level of education results in a lack of knowledge of mothers in dealing with problems, especially in terms of exclusive breastfeeding. In general,

the low level of knowledge is caused by a lack of exposure to information from television, books, newspapers, or other social media and due to unfavorable environmental factors, such as lack of access to information about health from community leaders or access to transportation that limits community mobility. In these ten stunting locus villages, access to information about health and access to transportation were considered quite good. This is based on the observations of researchers who noted good cooperation between integrated healthcare center staff, public health center officers, and local officials with teams from the Pandeglang health department.

Mothers with higher levels of education generally have better nutrition knowledge and have greater attention to the nutritional needs of their children. Likewise, in understanding the benefits of breastfeeding for children, it is generally stated that mothers who have more education levels have a high level of understanding [12]. The low level of maternal education increases the risk of mothers not giving exclusive breastfeeding. The mother's low education level allows the mother to be slow to accept and adopt new knowledge, especially regarding matters regarding breastfeeding patterns [13]. However, in this study, no statistically significant relationship was observed between the respondent's last education and exclusive breastfeeding (Table 4). Although most of the mothers' education levels are moderate and low, the coverage of exclusive breastfeeding is quite good, which is more than 60%. This finding is in line with research by Umami W (2018), DA Pitaloka (2018), and Siti et al. (2020), who also found that there was no significant relationship between the mother's level of education and knowledge with exclusive breastfeeding [10,11,14]. On the other hand, another study stated that a low level of maternal education increases the risk of mothers not giving exclusive breastfeeding, and low education allows mothers to be slower to adopt new knowledge related to breastfeeding patterns or storage [15].

Based on data from the Banten Province Health Office Profile in 2017, the coverage of exclusive breastfeeding in 2016 was around 55.75%, while the government's target was

80%. The results of this study indicate an increase in the coverage of exclusive breastfeeding in the Pandeglang Regency, although it has not yet reached the government's target. To improve the quality of future Indonesians, the most efficient effort is to prevent malnutrition by promoting proper feeding practices in the first 1000 days of life. Breast milk is the ideal food for babies; therefore, exclusive breastfeeding is recommended as long as it is sufficient for the baby's needs. Several steps to increase milk production so that exclusive breastfeeding is successful include early initiation of breastfeeding, correct position and attachment during breastfeeding so that the baby breastfeeds effectively and assessing the adequacy of breast milk. Adequacy of breast milk is ensured by the frequency of urination 6–8 times a day, duration of breastfeeding 10–30 min for one breast, and adequate weight gain [16].

Several studies have proven that the level of a mother's education affects exclusive breastfeeding [17,18]. Mothers who have a higher level of education are generally open to changes or new things to maintain their health. Education will also encourage someone to be curious to seek experience so that the information received will become knowledge. The level of education in the family, especially the mother, can be a factor that affects the nutritional status of children in the family. The higher the education of parents, the better the knowledge of nutrition compared to those with low education. The difference in the findings in this study could be possible because there is already quite a lot of health information received by respondents, especially regarding breastfeeding obtained from social media such as from television, radio, gadgets, or local health workers. However, sometimes, higher education does not make mothers change their behavior to give exclusive breastfeeding to their babies. The low level of public education is not a major factor in the use of breast milk.

## Conclusion

Based on the bivariate analysis, it was concluded that there was no significant relationship between the mother's education and

knowledge on the coverage of exclusive breastfeeding in ten stunting locus villages located in Pandeglang Regency, Banten.

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