



Relationship between Mothers' Knowledge and Exclusive Breastfeeding Behavior in One Private Hospital in West Indonesia

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Abstract. Breast milk is the most exceptional nourishment for babies. Breast milk contains micro and macronutrients, antibodies, fat, and more than hundreds of kinds of supplements that are needed for babies' growth and development. The study aimed to examine the relationship between mothers' knowledge with exclusive breastfeeding behavior. We applied the cross-sectional study design in this study. The population is all mothers from the inpatient and outpatient departments. Using the accidental sampling technique, we involved 150 mothers during June - July 2019. The univariate analysis described the respondents' characteristics, mothers' knowledge, and exclusive breastfeeding behavior. Bivariate analysis using the Chi-Square analysis revealed a significant correlation between the mothers' knowledge and exclusive breastfeeding practice ($p=0.011$). Additionally, the study found that mothers who had low knowledge have the opportunity of 2.556 times to perform exclusive breastfeeding. The health education towards exclusively breastfeeding behavior is essential to established not only from the prenatal period but also in the postnatal period and continues until the second year of childbirth. Further research needs to examine the husband's support and social culture aspects in demographic data to identify factors for having optimal exclusive breastfeeding.

Keyword: breastfeeding, knowledge, mother



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INTRODUCTION

Breast milk is the best nutrition for babies. The implementation of early breastfeeding initiation supports exclusive breastfeeding and the duration of breastfeeding[1]. Exclusive breastfeeding practice is the way that babies have no other drink or food, no water unless breast milk for the first six months of life. The babies can receive vitamins, medicines, minerals given through drops, and syrups[2].

Recently, breastfeeding as the gold standard of infant feeding had numerous benefits. It can reduce infant mortality and reduce the risk of diseases such as diabetes, obesity, eczema, and hypertension[3]. Furthermore, higher intelligence in late childhood and adulthood has been associated with the increased duration of breastfeeding, so this can affect the child's contribution to society[2]. Exclusive breastfeeding for the first six months of life is currently thought about as a public goal that correlates to the reduction of infant morbidity and mortality, particularly within the developing countries[4].

Despite the goodness of breast milk, we have to accept the data that almost 2 out of 3 infants were not given exclusive breastfeeding for the first recommended six months. This number of rate has not improved in two decades. The increase of the breastmilk substitute advertisement continues to alleviate the breastfeeding rates and duration all over the world [5].

The Palembang Public Health Centre in 2009 obtained data on 100% of infants given exclusive breastfeeding of 410 infants. Data collected from one of the public health in Palembang in 2010 has shown from 338 babies, only 210 babies received exclusive breastfeeding (62.13%), and 128 babies did not receive exclusive breastfeeding (37.86%). In 2011 there were 179 babies, including 124 babies (79.3%) who were exclusively breastfed and 37 babies (20.7%) who did not get exclusive breastfeeding.

In one private hospital in western Indonesia from May to June, we found randomly that there were 28 out of 35 children aged six months to 5 years were not given exclusively breastfeeding. When the researcher asked the mother of the child, we found out that 14 mothers did not breastfeed exclusively because they were too busy working, eight mothers failed to provide breastfeeding exclusively because they did not know the content contained in the breast milk. Another six mothers did not give exclusive breastfeeding because they considered that the benefits and nutrition of formula milk as good as breastmilk.

OBJECTIVE

The study aimed to examine the relationship between mothers' knowledge and exclusive breastfeeding behavior in one private hospital in western Indonesia.

METHOD

This study used quantitative research methods with correlational approaches. The population in this study was all mothers with six months to 5 years old children in one private hospital in West Indonesia. An accidental technique sampling was conducted. The researcher carried out to anyone who accidentally meets a researcher, and the person is following the criteria. Samples were taken from the population and met the inclusion criteria, namely mothers who had children aged six months to 5 years, and mothers who were willing to be respondents. The exclusion criteria were mothers who give formula milk to their children since the age of 0 months, mothers who have children aged 0 to 5 months, and mothers who were experiencing pain in the nipple. The study was conducted in the 6th-floor inpatient room

and 2nd floor of the outpatient department in one private hospital in west Indonesia from June-July 2019.

The instrument used in this study was a self-generated questionnaire, which initially consisted of 30 questions. A validity test has been conducted on 35 respondents using r tables (0.3338). There were eight valid questions for the mothers' knowledge variable and ten valid questions for exclusive breastfeeding behavior. All valid question items are continued with the reliability test with the provisions of the r-value > 0.6. The results of the Cronbach Alpha value on the knowledge variable is $p = 0.0779$, and on the variable of exclusive breastfeeding behavior is $p = 0.783$. Based on this, the questions in the questionnaire were declared reliable.

Firstly, the respondents were explained about the purpose of the study. Informed consent was given to the respondents before the respondent filled the questionnaire. Lastly, all the data were collected, rechecked, and analyzed using the computerization system. Univariate analysis was conducted to describe the respondent's characteristics, mothers' knowledge variable, and exclusive breastfeeding behavior variable. A bivariate analysis using the Chi-Square technique analysis then undertaken to find the relationship between mothers' knowledge and exclusive breastfeeding behavior.

In order to protect the respondents' right, this research has been reviewed by the ethical committee and was conducted with the approval of the Ethics Committee of Faculty of Nursing at Universitas Pelita Harapan in June 2017. The certificate number ethics approval letter was 005/RCTC-EC/R/SHPLBANGKA/VI/2019.

RESULTS

The study was conducted on June 20 - July 5, 2019, in one private hospital in western Indonesia. One hundred fifty respondents who have children aged six months to 5 years were involved. The results of data collection were analyzed using univariate analysis and bivariate analysis.

Respondents' Characteristic

Table 1 described the characteristic of respondents. Most respondents with an age range of 26-35 years were 123 respondents (82%). Based on the level of education, the majority of respondents had an undergraduate degree of 67 people (44.7%). Most respondents were employed mothers (54%). More than half of the respondents had two children (51.3%).

Table 1. The Description of Respondents' Characteristic (N=150)

Characteristics	(n)	Percentage (%)
Age		
17-25	23	15.3
26-35	123	82
36-45	4	2.7
Level of education		
Junior high school	2	1.3
Senior high school	53	35.3
Diploma	20	13.3
Undergraduate	67	44.7
Graduate	8	5.3
Working status		
Employed	81	54
Unemployed	69	46

Number of Children		
1	33	22
2	77	51.3
3	31	20.7
4	8	5.3
6	1	0.7

Mothers' knowledge of exclusive breastfeeding behaviour

Table 2 Described the frequency knowledge on exclusive breastfeeding behaviour among mothers. The results found that more than half of the mothers in this study had a high knowledge of breastfeeding (59.3%).

Table 2. Mothers' Knowledge of Exclusive Breastfeeding

Variable	Frequency	Percentage (%)
Mothers' Knowledge		
Low	61	40.7
High	89	59.3

Exclusive breastfeeding behaviour

Table 3 described the frequency of exclusive breastfeeding behavior. The findings highlights that more than half of the respondents did not carry out exclusive breastfeeding as many as 86 mothers (57.3%).

Table 3. Mothers' Knowledge of Exclusive Breastfeeding

Variable	Frequency	Percentage (%)
Exclusive Breastfeeding Behavior		
Unimplemented	86	57.3
Well implemented	64	42.7

The Relationship between Mothers' Knowledge and Exclusive Breastfeeding Behavior

Table 4 showed that 18 mothers (29.5%) who had low knowledge did the exclusive breastfeeding, while 46 were mothers (51.7%) who were knowledgeable did the exclusive breastfeeding. The analysis results from the Chi-Square test showed that there was a relationship between maternal knowledge and exclusive breastfeeding behavior ($p=0.011$). The results of this research analysis yielded Odds Ratio 2.556, It was indicated that low-educated mothers have a 2.556 times greater chance of implementing exclusive breastfeeding.

Table 4. The Relationship between Mothers' Knowledge and Exclusive Breastfeeding Behavior in One Private Hospital in West Indonesia (n=150)

Mothers' Knowledge	Exclusive Breastfeeding Behavior				p-value	Odd Ratio
	No		Yes			
	N	%	N	%		
Low	43	70.5	18	29.5	0.011	2.556
High	43	48.3	46	51.7		
Total	86	57.3	64	42.7		

DISCUSSION

Based on the description of the mother's age, the study found that most mothers with an age range of 26-35 years as many as 123 mothers (82.0%). This finding is in line with the research that examined the description of the age of the mother with exclusive breastfeeding. The results showed as many as 41 mothers (85.42%) were mostly aged 20-35 years[6]. A recent study explained that the age range of 20-30 years could affect exclusive breastfeeding[7].

Of the 150 respondents who fulfilled the questionnaire, almost half of them were undergraduate (44.7%). The result confirms the previous study, which found most of the respondents were undergraduate mothers (56.7%). The regression analysis conveyed that the mother's level of education was a very overriding factor to increase knowledge[8].

The study revealed that most respondents were employed mothers (54%). These findings refute to the previous study that stated that most of the respondent was an unemployed mother (55%)[9]. This finding can be a challenging situation for mothers because of the lack of time to breastfeed their babies. The logistic regression test showed that the most dominant factor influencing exclusive breastfeeding was employment status with $p= 0.008$ and $OR = 4.137$, indicating that mothers who did not work had the opportunity to give exclusive breastfeeding [7]. On the other hand, employed mothers will have a chance to increase their knowledge of breastfeeding. Working mothers will be disposed to have more access to find information about breastfeeding from their friends, the internet, and especially from their co-workers[10]. Furthermore, mothers will have a higher chance of a meet and discuss with more experienced persons[8].

Of the initial sample, we found that more than half of the respondents had two children (51.3%). We assume that the more children delivered, the mother will be more confident to breastfeed their babies. A recent study found that mothers with five children or more have high knowledge and a good attitude toward breastfeeding behavior. They found a significant correlation between the increased number of pregnancies with the overall mother's knowledge[8].

We found that most of the mothers in this study had a high knowledge of breastfeeding (59.3%). The result confirms the previous finding, which stated that most of the respondents were having good knowledge of breastfeeding behavior (69.8%)[4]. Nevertheless, health care providers must support mothers by giving educational interventions to help mothers in overcoming the obstacles they have while breastfeeding. Mothers can have a misconception about the right amount of milk that is needed for proper child growth[11].

Regrettably, we also found that more than half of the respondents, as many as 86 mothers did not carry out exclusive breastfeeding behavior (57.3%). This finding became our

concern because this kind of behavior can influence babies' growth, development, and immune system. Despite the fact, a recent study had shown more than half of the respondents had practiced exclusively breastfeeding for six month[12]s (55.8 %). The common reasons among the mother who did not give exclusively breastfeeding were the assumption that their babies were not satisfied with their milk and the fact that they felt more comfortable in providing bottle-feeding to their infants[12].

The study found a significant relationship between mother's knowledge and exclusive breastfeeding behavior ($p=0.011$). The previous study that had similar findings stated that the level of mother's knowledge about exclusive breastfeeding influences the success of the practice of exclusive breastfeeding. The existence of mothers' initial breastfeeding practices has a higher chance to give exclusive breastfeeding for babies[13]. However, these findings refute previous results, which showed that there was no significant relationship between maternal knowledge and exclusive breastfeeding ($p= 0.392$)[14]. Our finding also differs from the study in the South of Sulawesi that showed no significant relationship between the level of knowledge with exclusively breastfeeding behavior ($p=1.132$)[15].

Interestingly, the statistical result showed the Odds Ratio numbers of 2.556. This number explained that low-educated mothers have a 2.556 times greater chance of implementing exclusive breastfeeding. The result confirms with the study, which found that one of the trigger factors in exclusive breastfeeding behavior is knowledge[16]. The researcher recommended that the information about exclusively breastfeeding should be given by health care workers who work in maternal and childcare settings [4]. Nevertheless, mothers' knowledge can also be acquired from out of the hospital. The previous study also showed that the family became the primary source of mothers' knowledge regarding breastfeeding[17].

Although this study involved quite a lot of respondents and included outpatient and inpatient units, the research location was only located in one private hospital so that the results obtained in this study may not be able to generalize the respondents in different research locations.

CONCLUSION

We found that there was a significant relationship between mothers' knowledge and exclusive breastfeeding behavior in one private hospital in west Indonesia. It is expected that health workers can provide counseling and motivate mothers to provide exclusive breastfeeding so that mothers understand the importance of exclusive breastfeeding compared to formula milk. Nurses, other workers, and also public health cadre should be able to provide sequence education and motivation so that mothers can exclusively breastfeed with a pleasant feeling from the pre-conception period when baby birth up to a minimum of 6 months of age and continued until the second child's birthday. Furthermore, the findings in this study also motivate the institutions and nursing students to further enhance their creativity in providing audio-visual health education towards breastfeeding. These tools can be shared through social media platforms and hopefully can gain mothers' knowledge and awareness of the goodness of breast milk. Further study is needed to identify factors for having optimal exclusive breastfeeding behavior by adding the husband's support and social culture aspects in demographic data.

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