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Analysis of Breastfeeding Factors: The Sunrise Model Approach

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Abstract

Background: Breast milk is the main food of infant in the sixth month of life. The behavior of exclusive breastfeeding in infants aged 0 - 6 months is still low. Variety of factors affected the behavior of breastfeeding. Based on Sunrise Model a lot of components affect health behaviors.

Objective: To analyze the factors behavior of breastfeeding based on Sunrise Model at Kenjeran Public Health Center

Method: The design used was cross sectional with total sampling method and 28 respondents. The independent variables were the kinship and social factors; cultural values and ways of life; niketutalitarmini@gmail.com economic factors, and educational factors. The dependent variable was the behavior of breastfeeding included exclusive, predominant and partial breastfeeding. Instruments used in the data collection were questionnaires. Data were analyzed using the Spearman test with the level of significance level was $\alpha < 0.05$.

Results: The results showed that kinship and social factors along with cultural values and ways of life were significantly related to breastfeeding behavior (psocial = 0,000, cultural = 0,000). Economic factors along with educational factors were not significantly related to breastfeeding behavior (peconomic = 0.460, peducational = 1,000).

Conclusion: Kinship and social factors, cultural values and ways of life can improve the behavior of exclusive breastfeeding. Differences in economic and educational levels do not lead to differences in breastfeeding behavior. The results of this research can be used as the design of a model program of interventions on breastfeeding behavior in the community in further research.

Keywords: *Breastfeeding, Sunrise Model Approach*

Introduction

Breastfeed (ASI) is the baby's main food. WHO and UNICEF recommend exclusive breastfeeding be given to infants from birth to six months without additional food and drinks, except medicines and vitamins. Exclusive breastfeeding reduces infant mortality due to various common diseases affecting children and accelerates recovery when sick. Breastfeed has succeeded in preventing 1.4 million under-five deaths in developing countries[1,2]. Breastfeeding behavior and knowledge in maternal who have infants, especially exclusive breastfeeding, is still lacking. Many people still appreciate the beliefs, traditions, and culture that infants who are breastfed still need water and food other than breastfeed[2,3].

The Sunrise model was developed to provide a comprehensive and conceptual overview as an important factor for the theory of culture care diversity and universality. This model is a conceptual visual guide that illustrates several factors thought to influence cultural care[4]. There are various factors that can influence the behavior of breastfeeding, including mothers who give exclusive breastfeeding understand and receive

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information about exclusive breastfeeding and the benefits of counseling given. Although there are some mothers who give exclusive breastfeeding, but there are still some other mothers who give breastfeed with additional food and drinks. This can happen for several reasons, including infants who only get breastfeed just look less full and fussy, mothers are tired after work, mothers are embarrassed to breastfeed in public, mothers are sick, breastfeed does not come out or a little[5,6].

Based on the Sunrise Model approach, this theory is important for health workers to realize cross-cultural knowledge and their needs. Culture is not just a way of life for someone but to connect someone with others, so they can know the needs or desires of that person. A person's cultural background needs to be studied in order to know beliefs about values and behavior in dealing with one another[4]. There are cultures that can support exclusive breastfeeding but there are also those that do not support exclusive breastfeeding. Family support is a supporting factor which, in principle, is an emotional and psychological activity given to breastfeeding mothers in breastfeeding. A positive mother's mind will stimulate muscle contraction around the alveoli glands to flow milk into the lactiferous ducts and then inhale by the baby[7]. In the Sunrise Model approach, there are several components that can influence health behavior. Based on the previous explanation, writers analyzed social factors and family attachments, cultural values and way of life, economic factors and educational factors in the Sunrise Model approach for further analysis in identifying behavioral factors in breastfeeding.

Method

This study used a cross sectional approach. The independent variables were social factors and family attachment, cultural values and ways of life, economic factors and educational factors and the dependent variable is the behavior of breastfeeding including exclusive, predominant, and partial breastfeeding.

The target population in this study was breastfeeding mothers with infants aged 0-6 months in the work area of the public health center in Surabaya Indonesia as many as 90 people. The sampling technique used in this study was total sampling. Samples representing this study were 28 people with inclusive criteria: (1) Mothers who have children aged 0-6 months (2) Mothers who can read and write (3) Mothers who give breast milk. Furthermore, the exclusion criteria are: (1) At the time of the study, it was not in the area for a difficult period to determine (2) mothers with HIV/AIDS, hepatitis, and diseases that could be transmitted through breastfeeding.

Data collection instruments used in this study was questionnaires, namely a number of questions and written statements that were used to obtain demographic data, independent variables, and dependent variables. The instrument validity test was carried out with the SPSS 21 application with valid results on all questionnaires. The reliability test was performed using the Cronbach alpha method and declared reliable.

After the data was collected, the data was presented and analyzed by using Spearman's correlation statistical test to find out the relationship between the dependent and independent variables. The Spearman Test's significance level was determined $\alpha < 0.05$. This study has been through a review and has been declared "Eligible Ethics" with a Certificate of Ethical Feasibility from the Faculty of Nursing, Universitas Airlangga, Surabaya, Indonesia.

Result

Respondent Characeristics

Herewith the data of respondent characteristic and respondents' infants.

Table 1 : Respondent Characteristic

No.	Respondent Characteristic	%
1.	Mom's Age	
	20-35 years old	92,8
	>35 years old	7,2
	Total	100
2.	Children Number	
	1	25
	2	60,7
	3	10,7
	>3	3,6
	Total	100
3.	Mom's work	
	Entrepreneur	7,2
	House Wife	64,3
	Teacher	10,7
	Staff	17,8
	Total	100
4.	Live with	
	Husband and children only	28,5
	Husband, children, and parents in law	7,2
	Husband, children, and parents	35,8
	Big Family	28,5
	Total	100
	Infant Data	
5.	Infants Age	
	<1 month	10,7
	1-3 months	21,5
	4-6 months	67,8
	Total	100
6.	Child Number	
	1st	25
	2nd	60,7
	>2	14,3
	Total	100
7.	Sex	
	Female	46,4
	Male	53,6
	Total	100

The Relationship between Social Factor and Big Family Involvement in Breastfeeding

All respondent has good relationship in the social factor and big family involvement.

Table 2 : The Relationship between Social Factor and Big Family Involvement in Breastfeeding

Social Factor and Big Family Involvement	Breastfeeding			Total
	Exclusive Breast-feeding	Predominant Breast-feeding	Partial Breast-feeding	
	%	%	%	%
Good	100	0	0	100
Moderate	44,4	0	55,6	100
Bad	0	9,1	90,9	100

The Relationship between one and another Factors

The result of Rho Spearman Statistic was got a value of p = 0,000 (α<0,05) so H1 accepted.

Table 3 : The Relationship between one and another Factors

Factors	Breastfeeding						Total	
	Exclusive Breastfeeding		Predominant Breastfeeding		Partial Breastfeeding			
	F	%	f	%	f	%	∑	%
Factor of Culture Value and health Lifestyle								
Strong	6	85,7	0	0	1	14,3	7	100
Moderate	6	75	0	0	2	25	8	100
Weak	0	0	1	7,7	12	92,3	13	100
Rho Spearmen Test contingent coefficient (r) = 0,749 p = 0,000								
Factor of Economy								
Moderate	4	57,1	0	0	3	42,9	7	100
Low	8	38,1	1	4,8	12	57,1	21	100
Rho Spearmen Test contingent coefficient (r) = 0,146 p = 0,460								
Factor of Education								
High	2	50	0	0	2	50	4	100
Moderate	8	40	1	5	11	55	20	100
Low	2	50	0	0	2	50	4	100
Rho Spearmen Test contingent coefficient (r) = 0,000 p = 1,000								

Discussion

The results showed that the behavior of breastfeeding included partial breastfeeding 53%, breastfeeding 3.6%, and exclusive breastfeeding 42.8%. According to WHO, the behavior of breastfeeding was categorized into 3, namely the behavior of exclusive breastfeeding, the giving of predominant and partial breastfeeding. Internal factors that influenced breastfeeding behavior included age, maternal knowledge, level of education, perception, psychological, maternal physical and emotional mother. Meanwhile, external factors that influenced breastfeeding behavior were the role of the husband, socio-cultural changes, mother's work, information by health workers, and lactation management in the delivery room (IMD practice). Other factors were maternal health which made it impossible to give breastfeeding[2,8,9].

The results examined that there was a statistically significant relationship between the factors of cultural value and way of life with breastfeeding behavior. This can be seen from the majority of mothers with a factor of cultural value and a healthy way of life that provides strong exclusive breastfeeding (85.7%). Mothers with weak cultural values and a healthy lifestyle gave 100% non-exclusive breastfeeding (Partial breastfeeding 92.3% and Predominant breastfeeding 7.7%).

The results of other studies indicated that there were cultures that can support exclusive breastfeeding but there were also those that did not support exclusive breastfeeding. Mothers who have strong cultural values and healthy ways of life and weak healthy ways of life tend to choose non-exclusive breastfeeding. There was one respondent whose factor of cultural value and way of life was strong that respondent 1 gave partial breastfeeding because the mother works. Many people did not know how to pump and store breastfeed, hence they chose to give formula milk during the day when they work[10,11].

The results showed that there was no statistically significant relationship between educational factors and economic factors of mothers with breastfeeding behavior. This can be seen from the data of mothers who gave exclusive breastfeeding as much as 42.8% of 28 respondents consisting of educated mothers (high, medium and low) as well as middle and lower economic levels. The Kenjeran Community Health Center has provided counseling about breastfeeding so getting information about ASI was not a problem. The level of education was one of the social aspects that generally affected the level of family income as well as economic factors. In this case high knowledge, the effort to find information will be broader, because people who have a higher education base are easier to understand and understand the information they receive when compared to those with lower education[1,12]. That means that mothers with high levels of education will produce good knowledge and from good knowledge will influence good behavior (exclusive breastfeeding behavior) such as respondents 11 and 19.

12 respondents with lower economic factors and lower secondary education factors provided non-exclusive breastfeeding. Low-educated mothers need information or information media about breastfeed that was easier to understand. This information must be conveyed in ordinary language through lay forums such as social gathering and PKK meetings. Respondents 7 with lower economic factors and low education factors exclusively breastfed. The higher per capita household income, the lower the exclusive breastfeeding, both in the group of infants aged 0-1 months, 2-3 months, and 4-5 months.

There was one respondent, 28 respondents who have secondary economic factors and secondary education factors but provide partial breastfeeding. In this respondent, social factors and family attachments were weak as well as cultural values and healthy ways of living are weak. Sunrise model stated that a health behavior was formed by various factors that work together. If there was an imbalance of factors such as the respondent number 28, the health behavior became less. That caused someone to be educated and have a good economic status, their health behavior was still lacking, whereas respondents 4 and 26 with higher education and middle economic factors gave partial breastfeeding because of work. Working mothers were actually not a reason to not give exclusive breastfeeding if they knew how to pump and store the right milk. Health workers should provide this information after the mother gives birth. In addition, the delivery of information was conveyed by her husband and family in order to support the mother in providing exclusive breastfeeding. Mothers with secondary economics and tertiary education should be more active in finding information about breastfeeding because they were better able to understand and easily access information[13–15].

Conclusion

Social factors and family attachments as well as cultural values and ways of life enhance the behavior of exclusive breastfeeding. Furthermore, at the economic level and education level did not determine the behavior of breastfeeding.

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