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Analysis of Determinant Factors of Exclusive Breastfeeding in Indonesia: A Case of Ulakan Tapakis District

Marisa Lia Anggraini[1], Arni Amir[1,2], Hardisman Dasman[3]

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ABSTRACT

Background and Aim: Infant's nutritional needs for optimal growth and development up to of 6 months can be supplied by exclusive breastfeeding because it contains all the nutrients as the infant needs. However, the exclusive breastfeeding practice has been relatively low in Indonesia, including Tapakis District in West Sumatera Province. The study aimed to explore the determinant factors related to this practice.

Method: A cross sectional study was conducted in Uakan Tapakis District, on 88 mothers who have a child aged 0-12 months. To understand the determinant factors, the data was analyzed both using bivariate and multivariate analysis.

Result: The result shows that exclusive breastfeeding is associated to knowledge (p=0.025), attitude (p=0.038), motivation (p=0.044), occupational status (p=0,025), health resource availability (p=0,028), health officer role (p = 0,013) and family support (p= 0,038). Moreover, the most dominant variable is the role of health workers in supporting the breastfeeding practice (p= 0.013, OR=8.772).

Conclusion: The health workers, especially midwife plays significant role in supporting breastfeeding practice. It is necessary to have good communication and health education from health workers for the succeed implementation.

Keywords: *Exclusive breastfeeding, determinants, health workers*

BACKGROUNDS

The standard of health in a country can be seen from Infant Mortality Rate (IMR) and the life expectancy of its population.[1] Globally, the World Health Organization (WHO) states that the number of infant deaths is about 1 million stillbirths and 2.7 million deaths in the first week of life. More than 63 countries in the world, including in the Asian region, are in dire need of efforts to reduce the infant mortality in order to achieve the Suitable Development Goals (SDGs) target, namely 12 deaths per 1,000 live births in 2030.[2]

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In Indonesia especially, the IMR is also relatively higher than neighboring countries. The data of Indonesian Demographic and Health Survey (IDHS) has shown that the IMR dropped from 68 to 32 deaths per 1,000 live births in 1991 and 2012 respectively.[3] In West Sumatra Province especially, the cases of infant mortality was found 392 cases in 2014.[4]

WHO and the United Nations Children's Fund (UNICEF) lead global breastfeeding advocacy initiatives to ensure that exclusive breastfeeding rates increase by at least 50% by 2025.[5] WHO and UNICEF in Infant and Young Child Feeding, recommend the gold standard for feeding infants and children are (1) early breastfeeding initiation at 1 hour of birth, (2) Exclusive breastfeeding in the first 6 months, and (3) introduction to complementary solid food with adequate and safe nutrition at 6 months together with continuing breastfeeding for up to 2 years or more.[6] World Breastfeeding Week Guide in

2016 states that exclusive breastfeeding has a large contribution to growth and endurance. Children who are given exclusive breastfeeding will have optimal growth and development and are not easily get ill. This is in accordance with several global studies and facts.[7]

The coverage of exclusive breastfeeding in West Sumatra Province was relatively low, and did not reach the target, such as 60.0% in 2011 from the target of 67.0%, and 75.1% in 2015 from the target of 83.0%.[8] The exclusive breastfeeding practice in Padang Pariaman Regency was even lower, which was only 56% and 57.4% in 2014 and 2015 respectively. Among all districts in Padang Pariaman, Ulakan Tapakis Districts was the lowest with exclusive breastfeeding rate 29.8% in 2015.[9] Therefore, the study aimed to explore the determinant factors related to exclusive breastfeeding in this district as a case study, that can be inferable data for Indonesia.

METHOD

A cross sectional study was conducted in Ulakan Tapakis District, with the data collection between June and November 2017. The participants of the study was 88 mothers who had a baby 06-12 months, which selected randomly.

The instrument was developed by using Ministry of Health of Indonesia guidelines on breastfeeding practice. Later the data analyzed quantitatively both using bivariate and multivariate analyses.

RESULT

The result shows that there are 21.6% participants who do an exclusive breastfeeding. The distribution of knowledge, attitude, education and other variables are comparable between high and low (as can be seen in table 1).

Tabel 1. Distribution The Implementation of Exclusive Breastfeeding and Related Factors

Variable	f (n = 88)	%
Implementation of Exclusive Breastfeeding		
Exclusive	19	21,6
Not Exclusive	69	78,4
Knowledge		
Low Knowledge	50	56,8
High Knowledge	38	43,2
Attitude		
Negative Attitude	44	50,0
Positive Attitude	44	50,0
Motivation		
Not Good	48	54,5
Good	40	45,5
Education		
Low	49	55,7
High	39	44,3
Occupation		
Unemployed	66	75,0
Employed	22	25,0
Availability of Health Resources		
Not Available	58	65,9
Available	30	34,1
Affordability of Health Resources		
Unreachable	47	53,4
Affordable	41	46,6
Health Worker Skills		
Unskilled	47	53,4
Skilled	41	46,6
The Role of Health Workers		
Do Not Play a Role	33	37,5
Play a Role	55	62,5
The Role of Non-Health Workers		
Do Not Play a Role	71	80,7
Play a Role	17	19,3
Family Role		
Do Not Play a Role	44	50,0
Play a Role	44	50,0
Myth		
Believes	51	58,0
Do Not Believe	37	42,0
Formula Milk Promotion		
Interested	35	39,8
Not Interested	53	60,2
Health Problem		
No Health Problem	83	94,3
There are Health Problem	5	5,7

The exclusive breastfeeding practice associated to knowledge (p=0.025), attitude (p=0.038), motivation (p=0.044), occupational status (p=0.025), health resource availability (p=0.028), health officer role (p = 0,013), and family support (p=0.038) (see table 2).

Tabel 2. Variables relations with the implementation of exclusive breastfeeding

Variable		Implementation of Exclusive Breastfeeding				*p*
		Exclusive (n = 19)	%	Not Exclusive (n = 69)	%	
Knowledge	High	13	34,2	25	65,8	0,025
	Low	6	12,0	44	88,0	
Attitude	Positive	14	31,8	30	68,2	0,038
	Negative	5	11,4	39	88,6	
Motivation	Good	13	32,5	27	67,5	0,044
	Not Good	6	12,5	42	87,5	
Education	High	11	28,2	28	71,8	0,278
	Low	8	16,3	41	83,7	
Occupational Status	Unemployed	10	15,2	56	84,8	0,025
	Employed	9	40,9	13	59,1	
Availability of Health Resources	Available	11	36,7	19	63,3	0,028
	Not Available	8	13,8	50	86,2	
Affordability of Health Resources	Affordable	8	19,5	33	76,6	0,855
	Not Affordable	11	23,4	36	80,5	
Health Worker Skills	Unskilled	9	22,0	32	78,7	1,000
	Skilled	10	21,3	37	78	
The Role of Health Workers	Play a Role	17	30,9	38	69,1	0,013
	Do Not Play a Role	2	6,1	31	93,9	
The Role of Non-Health Workers	Play a Role	3	17,6	14	82,4	1,000
	Do Not Play a Role	16	22,5	55	77,5	
Family Support	Play a Role	14	31,8	30	68,2	0,038
	Do Not Play a Role	5	11,4	39	88,6	
Myth	Do Not Believe	6	16,2	31	83,8	0,435
	Believes	13	25,5	38	74,5	
Formula Milk Promotion	Not Interested	9	17,0	44	84,0	0,304
	Interested	10	28,6	25	71,4	
Health Problem	No Health Problem	18	21,7	65	78,3	1,000
	There are Health Problem	1	20,0	4	80,0	

Table 3 Dominant Factor The Implementation of Exclusive Breastfeeding

	Variable	p value	OR	95 % CI
Last Step	Motivation	0,004	8,560	1,978 – 37,054
	Availability of health resources	0,998	1,778	0,000
	Affordability of health resources	0,998	0,000	0,000
	The role of health workers	0,013	8,772	1,584 – 48,596

Multivariate analysis shows that the most dominant variable is the role of the health worker, with p value 0.013 and OR of 8.772 (CI=1.584 – 48,596).

DISCUSSIONS

Based on the results of the study, it is found that only a small proportion (21.6%) of respondents who carrie out exclusive breastfeeding on their babies. This result is very far from the achievement target of exclusive breastfeeding which is supposed to be 83.0%. According to research conducted by Rhokliana[10] mother, family, and community have little understanding about exclusive breastfeeding. Not a few mothers who still throw colostrum away because it is considered dirty. In addition, the habit of giving food and drinks early to baby in community also cause unsuccessful exclusive breastfeeding. Some mothers also lack of confidence to be able to breastfeed their babies. This encourages mothers to easily stop breastfeeding and replace it with formula milk.

The study it reveals that the knowledge of mother is associated to the implementation of exclusive breastfeeding. Another research conducted by Kusumaningrum[11] states that the poor knowledge is thought to be due to lack of information, lack of clarity of information, and lack of ability to understand the information received. The research conducted by Kusumaningtyas[12] states that poor knowledge in Exclusive breastfeeding can be caused by other factors that influence knowledge, including non-supporting environmental factors that can prevent a person from having poor knowledge.

The study also shows that there is a significant relationship between the attitudes of respondents and the implementation of exclusive breastfeeding. This is in accordance with Haryati's[13] opinion, that a mother who has never received advice or experience, breastfeeding counseling and the ins and outs of others, as well as from reading books, the mother will have less knowledge and influencing her attitude so that it becomes negative towards exclusive breastfeeding.

The motivation is also significantly associated to the implementation of exclusive breastfeeding. Sopiyani's study[14] in Klaten District found a very significant positive relationship between social support and motivation to provide exclusive breastfeeding. That is, the higher (stronger) the social support, the higher the motivation for giving exclusive breastfeeding.

Leve of education is also associated to implementation of exclusive breastfeeding significantly. The results of this study are not in line with Atabik[15] in his research, which states that there is a significant relationship between the level of maternal education and the implementation of exclusive breastfeeding in the Pamotan village of Rembang Regency. Mothers who have higher education generally also have better nutrition knowledge and have greater attention to the nutritional needs of children.

Meanwhile occupational status is also associated to exclusive breastfeeding practice. Its means that good environment very much influence the mother in their feeding baby practice. As Satino's research[16] in Surakarta City, explained that environmental factors support exclusive breastfeeding and the environment did not support exclusive breastfeeding.

The study also shows that the availability and access to health resources very much associated to the implementation of exclusive breastfeeding. Likely due to lack of information about exclusive breastfeeding from childbirth helper in the place of the mother giving birth. It can be expected that the combination of these two components is the key to the success of the lactation process.[17] In order to be able to achieve a wider community health service, a Health Center (Puskesmas) was established *Posyandu* (Integrated service post). Particularly in the field of midwifery with the aim

of accelerating the reduction of maternal and infant mortality, the idea of a midwife in the village.[18]

The role and support of health workers is significantly associated to implementation of exclusive breastfeeding. The results of this study are in line with Tesy Mamonto's research[19] in the work area of Kotobangon Public Health Center, West Kotamobagu Subdistrict, Kotamobagu City, where the results of the study stated that there was a relationship between the role of health workers and exclusive breastfeeding, where most respondents did not exclusively breastfeed because of the lack of role/ support from health workers. Based on the results of research conducted by Josefa[20] in the District of West Semarang, it turns out that the support of health workers in the period before and after childbirth, such as education and counseling, has not been as expected.

Moreover, the family support, including husband and relatives who stay at the same house with participants is very much influenced them to have exclusive breastfeeding practice. Research conducted by Hedianti[21] states that family members who play the most role in providing support in terms of informational support and assessment support are husbands, while family members who play the most role in instrumental support and emotional support are husbands and parents. From all of aspects of support, the family members who have the most role in providing support are husband and parents (67.9%).

About myth and false beliefs variables about baby food, based on the results of the study concluded that there was a significant relationship between the myths with the implementation of exclusive breastfeeding. One of the obstacles for breastfeeding mothers is their belief in myth. In fact, the myth cannot be proven true.[22] Myth is the fruit of ancient thought where analysis of a certain condition is still very limited. In line with the term 'not all myths are wrong', then not all myths can be held true.[23] Formula milk promotion variable, based on the results of the study concluded that there was no relationship between the promotion of formula milk with the implementation of exclusive breastfeeding. This study is in line with the research conducted by Isnaini[24], in which the mothers with poor education is at risk giving formula milk. Maternal education, in addition as the main asset in the household economy, also plays a role in the initial feeding of the baby.

Multivariate analysis result shows that the most dominant variable related to the implementation of exclusive breastfeeding is the role of health workers. In contrast to the research conducted by Tesy Mamonto[19] in the work area of Kotobangun Health Center, Kotamobagu Timur District, Kotamobagu City, stated that the most dominant variable is respondent attitude towards exclusive breastfeeding. And research conducted by Astuti[25] in the work area Serpong Health Center, said that the most dominant variable is the parent role related to the behavior of giving exclusive breastfeeding.

CONCLUSIONS

Based on the results of the research and discussion that refers to the research objectives, it can be concluded that the factors related to the implementation of exclusive breastfeeding are including predisposing factors (knowledge, attitudes, motivation, and work), enabling factors (the availability of health resources), and reinforcing factors (the role of health workers and the role of the family). The most dominant variable is the role of health workers, which implies that good communication and health education from health workers is necessary for the succeed implementation of exclusive breastfeeding practice.

Ethical Clearance: Research approval was taken from Medical and Health Research Ethics Committee of Faculty of Medicine of Andalas University. The formal permission was also obtained from the Department of Health of Padang Pariaman Regency of Indonesia.

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Competing Interests: The authors declare that there is no competing interests.

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