Factors Associated with Breastfeeding Practice in Indonesia

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Abstract

The fact is that practice of giving exlusive breastfeeding has not reached favorable numberin some developing countries because of various factors. This study aims to determine the relationship between the level of education of mothers, the occupation of mothers, and social support for mothers and breastfeeding behavior. The important hypothesis of this study, therefore, is that aspects of economy, environment, social, culture, and politics can influence mothers to breastfeed their babies. Secondary data from the Indonesian Family Life Survey (IFLS) 5 in 2014was employed. The total sample in this study was 5,108 people. STATA software version 13.0 with a probity model was used to analyze the data. Statistical test technique usingChi-square (X2) and multiple linear regressions were conducted. Results of this study indicate that there is no relationship between the level of education of mothers, and the occupation of mothers and breastfeeding behavior. However, there is a strong relationship between social support and breastfeeding behavior. Therefore, this study suggests that there is a need to develop the capacity of traditional midwives in order to increase the prevalence of women for breastfeeding.

Index terms— level of education of mothers, the occupation of mothers, social support, breastfeeding behavior, indonesia.

??Lisa, 2012)

, giving adequate physical growth of babies **??**Marques et al., 2015). Conversely, infants who do not receive exclusive breastfeeding are at a greater risk for morbidity and mortality **??**Tadesseet al., 2016). Exclusive breastfeeding during the first six months of the infants' life, combined with complementary foods and W old can reduce at least 20% of deaths a low children under five years old (Roesli, 2008). Meanwhile, Edmond et al. (2006) predicted that 16% of neonatal deaths can be preventedif supposing the baby was breastfed from the first day of his/her life; the rate enhances to 22% given that the baby was breastfed during the first hour of birth.

However, the rate of exclusive breastfeedingshown in some developing countries has not reached optimum results. A number of studies show that the practice of breastfeeding is relatively low **??**Chandhiok et **??**Mogreet al., 2016). Low number in giving exclusive breastfeeding also occurs among professional women workers (Dun-Dery and Laar, 2016). There are a number of obstacles and problems faced by mothers in breastfeeding their babies. According to Sharma and Byrne (2016), mothers in the South Asia region encounter several resembling obstacles. Those obstacles include unresolved feelings of insecurity (Palmér et al., 2015), cesarean delivery and infant's hospitalization along with maternal employment (Khasawneh and Khasawneh, 2017), mothers' income, antenatal and postnatal counseling and mode of delivery **??**Shifrawet al., 2015), as well as cultural and social barriers accompanied by low support from medical staff (Desmond and Meaney, 2016).

Those obstacles indicate that there are various factors influencing exclusive breastfeeding practices. Based on previous researches, constrained factors in general can be categorized into three aspects: internal, cultural (social environment) and institutional. Internal factors include maternal socio-demographic status such as education, age, occupation, type of housing area **??**Adugna et (Senghore et al., 2018) and underutilization of maternal health services (Biks et al., 2015).

Exclusive breastfeeding for infants is one of the most effective instruments and investments in improving the quality of human capital, yet this practice is anticipated to acquire serious challenges in the future. According to Atabay et al. (2014), currently around 54 countries in the world do not have legislations that guarantee breastfeeding practices. There are at least 50 countries which do not have rules regarding maternity leave or six months breastfeeding practices. Globally, it was estimated that the practice of exclusive breastfeeding in the first six months of infant's life only increased from 38% to 41% in the period of 2000 to 2012.

Attempts to increase the rate of exclusive breastfeeding practice has been implemented in national, regional and global levels. UNICEF is a global institution taking parts in these initiatives. Based on UNICEF (2012) data, the organization emphasizes on strategies and actions that promote multi-sectorial approaches in order to improve health and nutrition as well as initiatives to support health systems for both local and national community levels such as on social change and behavior related to optimum breastfeeding practices to infants. WHO and UNICEF launched the Baby-friendly Hospital Initiative program in 2009as an effort to improve facilities and environment that support breastfeeding.

Indonesia assigned the policy of Maternity and Newborn Hospital Services to carry out Early Breastfeeding Initiation, as an attempt to promote exclusive breastfeeding. However, only about 10% of hospitals out of 1,293 hospitals in Indonesia can be categorized as such. Another policy issued by the government is Government Regulation Number 33 of 2012, concerning support for exclusive breastfeeding at the workplace. Nevertheless, according to the Ministry of Health of the Republic of Indonesia (2013), this policy is lacking support from companies/organizations either in the form of providing a reserved area or space for infant lactation or administering recess periods for women workers to breastfeed their infants at the workplace.

In addition, further problem in promoting breastfeeding for babies in Indonesia isinadequate social support, especially comingfrom husbands whose wives are in breastfeeding period.The low level of support is partly due to men's lack of involvement in the breastfeeding campaigns. According to Destriatania et al., (2013), currently, husbands have not been fully involved in various initiatives, programs and campaigns of breastfeeding at national level, and they are not prepared to support and assist their wives in breastfeeding. With inadequate knowledge about breastfeeding, husbands tend to be ignorant on the positive impacts of breastfeeding practices, opting to feedtheir babies formula milk.

Empirically, family support for mothers to give breastfeeding has an important role to succeed (Nuraeni, 2000; Proverawati and Rahmawati, 2010; Roesli, 2005; **??**ahyuni, 2001). According to Friedman (2010), family support includes the informational support, reward support, instrumental support, and emotional support. Family support especially from husbands has an impact on increasing the confidence and motivation of mothers for breastfeeding their babies. However, a study conducted by Aini et al. (2014) showed that husbands' supports for post-partum mothers only focus on providing facilities such as costs for the process of delivery baby and other facilities, while emotional support such as in changing diapers, bathing and carrying babies, giving massage to wives and providing more time to wives and babies are still limited.

To increase the practice of breastfeeding in Indonesia, therefore, is an essential issue. Data from the Indonesian Demographic Health Survey in 2012 showed that the rate of exclusive breastfeeding practice in Indonesia was at 42%. The number of giving exclusive breastfeeding is still far from the WHO's target. The decision of mothers to give breast milk to their babies is determined by several aspects such as economic, environment, social, culture and politics. The government in this case has the obligation to improve facilities, policies, rules and programs to support breastfeeding practices. Studies related to this issue are still relevant, especially those that play a large sharein determining factors associated with the practice of breastfeeding. Therefore, this study aims to determine the relationship between the level of education, occupation, and social support for breastfeeding practices. The Indonesia Family Life Survey is a longitudinal health and socio-economic survey. The first survey of IFSL (IFLS1) was carried out in 1993 with a sample size of 7,224 households. The second survey of IFSL (IFLS2 +) was conducted in 1998 with the same respondents, with the additional aim to know the impact of the economic and political crisis in Indonesia. Subsequently, the third survey of IFSL (IFLS3) was conducted in 2000. Furthermore, the IFLS4 was carried out at the end of 2007 until the beginning of 2008 and the IFLS5 was conducted at the end of 2014 until the beginning of 2015. Total samples of those surveys were 16,204 households and 50,148 people were interviewed (Straussat al., 2016). Thirteenout oftwenty-seven provinces wastaken as samples, representing 83% of population. The provincial samples covered all provinces in Java (DKI Jakarta, West Java, Central Java, DI Yogyakarta, and East Java), the four largest provinces in Sumatra (North Sumatra, West Sumatra, South Sumatra, and Lampung) and four other provinces that are described as major island groups: Bali, West Nusa Tenggara, South Kalimantan, and South Sulawesi.

1 II.

2 Material and Method

This research used a secondary data obtained from the Indonesian Family Life Survey in 2014 (IFLS5). The unit of analysis was household level in Indonesia, consisting mothers who have children under five years old in the year of this study of 2014. IFLS5 was collected through questionnaire. STATA software version 13.0 with probit model was employed in the process of data analysis. Variables encompass in this study are: 1) the level of education, namely, the highest level of the mothers' formal education; 2) occupation of mothers which are jobs

thewivespartake in order to receive salaries/wages; 3) social support for mothers from families in several ways such as informational, empathy, instrumental, and emotional supports; and 4) breastfeeding behavior, seen as the behavior of mothers in breastfeeding their babies. Total sample in this study was 5,108 respondents. The hypotheses tested in this study are as follows: H0 1 : There is no relationship between the level of education of mothers and breastfeeding behavior. Chi-square was used to determine the relationship between variables of educational level, and employment and social support for breastfeeding. Theoretically, chi-square was used to analyze whether there is a relationship between characteristics of respondents to breastfeeding behavior. In order to find out the relationship between all independent variables (level of education, work and social support) with breastfeeding, this research employed multiple linear regression analysis techniques. Below is the estimation of multiple linear regressions: = regression coefficient value (slope) The use of constant values is statistically done if units of X variable (independent variable) and Y variable (dependent variable) are not the same. Whereas, if the X variable and the Y variable, both simple and multiple linear, have the same unit, the constant value is ignored assuming the change in Y variable will be proportional to the value of the change in X variable. Two regression models were used; they are probit and logit. The probit model or normal distribution is one regression model that can be used to determine the effect of independent variables on binary dependent variables (0 and 1); while the logit model or logistic distribution is a non-linear regression model that produces an equation where the dependent variable is categorical.

3 III.

4 Results

5 a) The Relationship between the Level Education of Mothers and Breastfeeding

The variable of educational level of mothers represents the highest level of education of mothers practicing breastfeed. This variable was measured using three questions: a) are you attending school (DL04), b) what is the highest level of your education or what current educational level are you attending (**??**L06), c) what highest educational level has you completed (DL07). The variable of breastfeeding behavior was the behavior of children formed from habits or experience. This variable was measured with one question which is whether mothers have experience in breastfeeding of their babies. Table 2 shows that there is no significant relationship between the level of education of mothers and breastfeeding behavior. Thus, the hypothesis or Ho 1 is accepted.

6 b) The Relationship between the Occupation of Mothers and Breastfeeding Behavior

The variable of the occupation of mothers in this study was defined as jobs which mothers involve in order to receive wages at the workplace. This variable was measured using the question of, "what is your job or occupation" (TK24a). This variable is categorized into: formal job, informal job and unemployed. Table 3 shows that there is no significant relationship between the occupation of mothers and breastfeeding behavior. Thus, the hypothesis or Ho 2 is accepted.

7 c) The Relationship between Social Support and Breastfeeding Behavior

The social support variable in this study was defined as all forms of material and non-material assistance received by mothers from other people to breastfeed their babies during the first period of birth (40 days). This variable was measured using one question, "within the first days (40 days) after delivering baby, did you (mother) receive treatment from someone who helped you in the process of delivering your baby?" (CH20h). This variable was categorized into: low and high options. Table 4 shows that there is a significant relationship between social support and breastfeeding behavior. Thus, the hypothesis/Ho3 is rejected. Overall, the three variables of X (Social Support, Level of Education of Mothers and the Occupation of Mothers) are related to variable Y (Breastfeeding). As explained in the following results, Prob > chi2 = 0.0000 shows that the relationship between social support, level of education of mothers, and the occupation of mothers and breastfeeding behavior is significant.

Pseudo R2 = 0.0676 means that the three independent variables used in this model explain that 6.76% of mothers decided to breastfeed and 93.24% was influenced by other factors. The results of multiple linear regression show that the intercept is at0.9669102 and the regression weight values for each independent variable are: 0.8256466, -0.0291597 and 0.0656583. ?? = ??+ ??1??1+ ??2??2 +??3??3 ?? = .9669102 + .8256466 ??1 + -.0291597 ??2 + .0656583 ??3

IV.

8 Discussion

The results of this study indicate that there is no relationship between the level of education of mothers and breastfeeding behavior. In the group of mothers with no formal education, the percentage of mothers who have never breastfed their babies is at 14.3%. Meanwhile, the percentage of mothers who had never breastfed was at 11.8% among the group of mothers who attend university, and 9.9% in the group of mothers who finished primary and secondary schools. This result is different from previous studies where there is a significant relationship between the level of education of mothers and breastfeeding behavior (see Arora et al., 2017;Asemahagn, 2016; **??**atmikaet al., 2014; **??**akewet al., 2015; **??**iben et al., 2016;Nguyen et al., 2018;Tiruye et al., 2018;Widiyanto et al.,2012;Wilopo, 2009). On the other hand, the results of this study are in line with the results of previous studies which showed no relationship between the level of education of mothers and breastfeeding behavior **??**Hastutiet al., 2015; **??**asahun et al., 2017). A study by **??**asahun et al. (2017) found that the higher of the level of mothers' education, the lower of the practice of breastfeeding. Specifically, knowledge about the importance of breast milk does not affect breastfeeding practices (Dachew and Bifftu, 2014).

Therefore, the variable of education is not correct variable of predictor for breastfeeding practices.

The professional of occupation either formal or informal of mothers who are breastfeeding their babies tend to be a barrier or obstacle in the breastfeeding practices. The problem is because the practice is not supported by the administration of any policy providing mothers with sufficient time of exemption for mothers to breastfeed their babies. In addition, there are no sufficient facilities of lactation rooms in public sphere either in government and private institutions. In this study, the higest percentage of mothers who have never breastfed is privilege to the group of mothers who work in formal sectors (11.5%), followed by mothers who work in informal sector (10%) and mothers who do not work (9.5%). Even so, this difference is not statistically significant, it can thus be said that there is no relationship between the occupation and breastfeeding behavior. Therefore, the results of this study are different from previous studies (e.g. Asemahagn, 2016; **??**uliastuti, 2011; **??**hasawneh and Khasawneh, 2017; **??**akewet al., 2015), showing that there is a relationship between working mothers and breastfeeding behavior.

Social support obtained by mothers in shaping breastfeeding behavior can be received from various parties, such as a support of baby care. Social support can also come from midwives who have long been known, especially in rural areas, as traditional birth assistant who assists in the delivery process, as well as assisting mothers in raising their offsprings until the they are at the age of two years old. However, routine assistance is doneat around seven to ten days after giving birth. The study conducted by Sopiyani (2014) shows that support for breastfeeding mothers are including thesupports from their husbands (93%), supports from parents (79%), supports from parent inlaws (79%), supports from friends (72%) and supports from the community leaders such as midwives, doctors, village officials and clerics (72%).

Based on the results of the product moment analysis, the correlation coefficient value (r) is at 0.522; p = 0,000 (p <0.01), meaning that there is a very significant or positive relationship between social support and motivation to provide exclusive breastfeeding. Most social supports come from midwives and traditional birth assistants who encourage mothers for breastfeeding their babies. If mothers do not behavior will be at low level resulting to the uncared behavior for the importance of breastfeeding, especially the practice of prolong breastfeeding pass the first six months of birth. The case is vice versa,the larger number of mothers receiving umteen social support from various parties; the larger number of mothers provide breast milk to their babies.

Number of studies show that social support from various parties has an important role for breastfeeding practices **??**Ayton and Wilopo (2009) found that mothers who received postnatal care by doctors or specialists had a shorter time to breastfeed their babies rather than mothers who were treated by midwives. Meanwhile, mothers who are treated by traditional midwives have a higher probability of breastfeeding. From sociological perspectives, this study argues social distance and intensive communication have a role in shaping perceptions, attitudes, and behaviors among actors. In rural areas of Indonesia, the role of traditional midwives in helping delivery babies is still dominant. A traditional midwife usually helps mothers in the delivery process of giving birth, especially those giving birth for the first time (primipara), and continue to assist them for 40 days after deliveryor until mothers can independently take care for their babies. These facts indicate that in this study, the variable of social support is the most important variable that influences breastfeeding behaviour.

V.

9 Conclusion

This study provides a large number of samples in order to determine the relationship among variables which are often predicted to be predictors of breastfeeding behavior. Three important predictors in this study are the level of education of mothers, the occupation of mothers and social support. Mothers' level of educationand theiroccupation possesses no relationship with breastfeeding behavior. Meanwhile, the variable of social support has a strong relationship to breastfeeding behavior. Social support in this study mainly comes from traditional birth assistants who still play an important role in helping the process of delivery babies and post-birth in rural areas. Therefore, an intensive communication between mothers and traditional birth assistants who helped delivering their babiescan increase mothers' confidence to breastfeed their children. Thus, the development of the capacity of traditional health assistants needs to be done consistently to increase the prevalence of mothers for breastfeeding.

Figure 1:

Figure 2:

Widiyantoat al., 2012;), support from husbands (Annisa and Swastiningsih, 2015; Destriataniaat al., 2013; Wattimena et al., 2015), the parity (Khoiriyah and Prihatini, 2015), support from mothers-in-law (Purnamasari and Rahmatika, 2016), counseling process on lactation (Vidayanti and Wahyuningsih, 2017), experience on the practice of breastfeeding (Hastutiat al., 2015) and support from medical staff (Jatmika et al., 2014).

Figure 3:

1

Variables	Book Code	Book	Variable Code	Data	Category
Breastfeeding	CH	4	CH24a	b4_ch1	Dummy: 1. High 2. Low
Social Support	CH	4	CH20h	b4_ch1	Dummy: 1. High 2. Low
Education Level	DL	3A	DL04 DL06 DL07	b3a_d11	1. No-Formal education 2. Elementary 3. Secondary 4. University
Occupation	TK	3A	TK24a	B3a_tk2	1. Formal 2. Informal 3. Unemployment

Figure 4: Table 1 :

2

		Breastfeeding Experience				Total	
Level of Education	fo	No	fe	fo	Yes	fe	fo	fe
No -formal education	7		5	42		44	49	49
Primary School (1-6)	114		117.8	1,034	1,030.2		1,148	1,148
Secondary School (7-12)	313		323	2,836	2,826.0		3,149	3,149
University (>12)	90		78.2	672		683.8	762	762
Total	524		524	4,584		4,584	5,108	5,108
Pearson Chi=3.3403 Pr=0.342								

Figure 5: Table 2 :

3

		Breastfeeding Experience					Total
Occupation	fo	No	fe	fo	Yesfe	fo	fe
Formal	132		118.1	1,019	1,032.9	1,151	1,151
Informal	166		168.3	1,475	1,472.7	1,641	1,641
Unemployed	226		237.6	2,078	2,078.4	2,316	2,316
Total	524		524	4,584	4,584	5,108	5,108
Pearson Chi 2 =2.4959						Pr=0.287	

Figure 6: Table 3 :

4

		Breastfeeding Experience				Total	
Social Support	Fo	No	fe	fo	Yes fe	fo	fe
Low	456		308.6	2,552	2,699.4	3,008	3,008
High	68		215.4	2,032	1,884.6	2,100	2,100
Total	524		524	4,584	4,584	5,108	5,108
Pearson Chi 2 =190.9116						Pr=0.000	

Figure 7: Table 4 :

Figure 8:

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