Pediatrics & Therapeutics
ISSN: 2161-0665

Kumala, Pediatr Ther 2017, 7:4
DOI: 10.4172/2161-0665.1000337

Research Article Open Access

Factors Associated with Exclusive Breastfeeding at Primary Health Care in Indonesia

Anastasia Kumala*

Department of Child Health, Siloam General Hospital, Tangerang, Indonesia

***Corresponding author:** Anastasia Kumala, Department of Child Health, Siloam General Hospital, Tangerang, Indonesia, Tel: 6281288699222; E-mail: dr.anastasiakumala@gmail.com

Received date: Nov 10, 2017; **Accepted date:** Nov 21, 2017; **Published date:** Nov 23, 2017

Abstract

Background: Breastfeeding is recommended as the best form of infant feeding. In Indonesia, despite a high percentages of women (96%) who breastfeed their children, only 42% of infants aged under 6 months are exclusively breastfed. It is important to understand the factors that influence exclusive breastfeeding so that intervention can be directed precisely.

Method: We conducted a cross-sectional study of mother who had 7 to 12 months old infants in Puskesmas Curug, Indonesia (2012). Data were collected by face-to-face interviews using a structured questionnaire. Chi-square was used to find risk factors associated with exclusive breastfeeding.

Results: Of 60 mothers, 51.2% did exclusive breastfeeding. Factors known to influence exclusive breastfeeding were early breastfeeding initiation (p=0.002), health counselling (p<0.001) and knowledge (p=0.004). Mother's education and occupation were not associated with exclusive breastfeeding.

Conclusion: Opportunities exist for increasing health counselling in primary healthcare in Indonesia to motivate mothers to do exclusive breastfeeding.

Keywords: Exclusive breastfeeding; Early breastfeeding initiation; Health counselling

Introduction

World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of life and continued breastfeeding up to two years of age or beyond. Promotion of exclusive breastfeeding is the single most cost-effective intervention to reduce infant mortality in developing countries [1,2]. Exclusive breastfeeding is defined as a practice where the infants receive only breast milk and not even water, other liquids, tea, herbal preparations, or food during the first six months of life, with the exception of vitamins, mineral supplements, or medicines [3]. The major advantage of exclusive breastfeeding from 4 to 6 months includes reduced morbidity due to gastrointestinal infection [4,5]. In 2009, Indonesia has enacted a law calling for every baby to be breastfed or to be given breast milk from donors and milk banks exclusively for the first six months of life, unless there are medical reasons not to do so. Yet although rates of exclusive breastfeeding in babies younger than six months increased from 32% in 2007 to 42% in 2012, according to the 2012 Indonesian Demographic Health Survey, implementation of the law remains poor and that formula companies continue to push breast-milk substitutes to mothers of very young infants [6]. Practices of breastfeeding may vary in rural dan urban area in Indonesia. Some of the major factors that affect exclusivity and duration of breastfeeding include maternal knowledge about breastfeeding, family support and health care providers educating mothers on breastfeeding [7]. This study is aimed to determine the exclusive breastfeeding rate and factors associated with exclusive breastfeeding practices in primary health care in Indonesia [8].

Methods

The study population was mother whose infants aged 7-12 months who gave birth in private hospitals, public hospitals, or by midwife assistance. We excluded infants who were adopted, severely ill (hospitalized in intensive care units), or who had medical indications to receive breast milk substitutes, such as maternal HIV infection, drug abuse, chemotherapy, maternal consumption of anticonvulsant drugs (phelbamate or topiramate), or maternal radiotherapy, as well as infants with galactosemia or phenylketonuria. Exclusive breastfeeding rate was defined as the proportion of infants who received only breast milk and no other liquids (including formula milk, water, or juice) or solids except for vitamins, mineral supplements, or medicines for the first six months of life, or at the time of study for infants.

This study was conducted at Puskesmas Curug, primary healthcare in Tangerang, Indonesia. Questionnaire was given on April-May 2012 to 60 mothers. Several variables were investigated as potential predictors of exclusive breastfeeding including early initiative breastfeeding, health counselling, mother's education, occupation and knowledge.

The questionnaire consisted primarily of a closed format including dichotomous questions (yes/no). It consists of mother's data (name, age, occupation and education), early initiative breastfeeding and health counselling and 6 question to access the mother's knowledge of breast feeding. Data was collected by face to face interview. Early

initiative breast feeding was described as breastfeeding initiation within 1 hour from birth. Mother's good knowledge was accessed by giving the right answer in more than 3 questions.

Questionnaire responses were collected and analysed using SPSS (version 13.0). Chi-square tests were used to evaluate relationships between different selected variables. The critical value for significance was set at $p<0.05$ for all analyses.

Results

From 60 mothers, 51.2% did exclusive breastfeeding in primary healthcare in puskesmas Curug, Indonesia. Bivariate analysis was used to measure relationship between exclusive breastfeeding and early initiative breastfeeding, health counselling, mother's education, occupation and knowledge.

Mother education	Status of exclusive breastfeeding (N=60)						P Value
	No		Yes		Total		
	N	%	N	%	N	%	
<9 years	9	52.9%	8	47.1%	17	28.3%	0.202
>9 years	20	46.5%	23	53.5%	43	71.6%	
Total	29	48.3%	31	51.7%	60	100%	

Table 1: Mother's education and rate of exclusive breastfeeding.

Mother who attended to only elementary school (<9 years), total 17 persons (28.3%). There were 9 mothers who did not give exclusive breastfeeding (52.9%) and total 8 mothers who gave exclusive breastfeeding (47.1%). Mother who attended high school and more (>9 years), total 43% (71.6%). There were 20 mothers who did not give exclusive breastfeeding (46.5%) and there were 23 mothers who gave exclusive breastfeeding (53.5%). The results of our analysis obtained P value 0.202 which states no significant relationship between the two variables. It is concluded that there is no influence between the levels of education of mothers with exclusive breastfeeding (Table 1).

Mother occupation	Status of exclusive breastfeeding (N=60)						P Value
	No		Yes		Total		
	N	%	N	%	N	%	
No	20	43.5%	26	56.5%	46	76.7%	0.173
Working	9	64.3%	5	35.7%	14	23.3%	
Total	29	48.3%	31	51.7%	60	100%	

Table 2: Mother's occupation and rate of exclusive breastfeeding.

Unemployed mothers total 46 mothers (76.6%). There were 20 mothers who did not give exclusive breastfeeding (43.5%) and total 26 mothers who gave exclusive breastfeeding (56.5%). Employed mothers total 14 mothers (23.3%). There were 9 mothers who did not give exclusive breastfeeding (64.3%) and there were 5 mothers who gave exclusive breastfeeding (35.7%). The results of our analysis obtained P value 0.173 which states no significant relationship between the two variables. It is concluded that there is no influence between mother's occupation with exclusive breastfeeding (Table 2).

Early breasfeeding initiation	No		Yes		Total		P Value
	N	%	N	%	N	%	
No	10	76.9%	3	23.1%	13	21.6%	0.002
Yes	19	40.4%	28	59.6%	47	78.4%	
Total	29	48.3%	31	51.7%	60	100%	

Table 3: Early breastfeeding initiation and exclusive breastfeeding.

Total 47 mothers (78.4%) gave early breastfeeding initiation. There were 19 mothers who did not give exclusive breastfeeding (40.4%) and total 28 mothers who gave exclusive breastfeeding (59.6%). Total 13 mothers (21.6%) didn't give early breastfeeding initiation. There were 10 mothers who did not give exclusive breastfeeding (76.9%) and there were 3 mothers who gave exclusive breastfeeding (23.1%). The results of our analysis obtained P value 0.002 which states there are significant relationship between the two variables. It is concluded that early breastfeeding initiation influences exclusive breastfeeding practices (Table 3).

Counseling	Status of exclusive breastfeeding (N=60)						P Value
	No		Yes		Total		
	N	%	N	%	N	%	
No	25	67.6%	12	32.4%	37	61.7%	0.000
Yes	4	17.4%	19	82.6%	23	38.3%	
Total	29	48.3%	31	51.7%	60	100%	

Table 4: Health counseling and rate of exclusive breast feeding.

Mothers's knowledge	Status of exclusive breastfeeding (N=60)						P Value
	No		Yes		Total		
	N	%	N	%	N	%	
Less	16	72.7%	6	23.3%	22	31.7%	0.004
Good	13	34.2%	25	63.8%	38	63.3%	
Total	29	48.3%	31	51.7%	60	100%	

Table 5: Mother's knowledge and rate of exclusive breastfeeding.

Total 23 mothers (38.3%) attended health counselling. There were 4 mothers who did not give exclusive breastfeeding (17.4%) and total 19 mothers who gave exclusive breastfeeding (82.6%). Total 37 mothers (21.6%) didn't attend any health counselling. There were 25 mothers who did not give exclusive breastfeeding (67.6%) and there were 12 mothers who gave exclusive breastfeeding (32.4%). The results of our analysis obtained P value 0.000 which states there are significant relationship between the two variables. It is concluded that health counselling influences exclusive breastfeeding practices (Table 4).

Total 38 mothers (63.3%) had good knowledge of breastfeeding. There were 13 mothers who did not give exclusive breastfeeding (34.2%) and total 25 mothers who gave exclusive breastfeeding (63.8%). Total 22 mothers (21.6%) didn't have good knowledge of breastfeeding. There were 16 mothers who did not give exclusive breastfeeding (72.7%) and there were 6 mothers who gave exclusive breastfeeding (23.3%). The results of our analysis obtained P value 0.004 which states there are significant relationship between the two variables. It is concluded that mother's knowledge influences exclusive breastfeeding practices (Table 5).

Discussion

World Health Organization recommends exclusive breastfeeding until infants are six months of age [1,2]. Breast milk is the best food for optimal growth and development of infants. Rates for six months of exclusive breastfeeding remain unsatisfactory even though the benefits of breastfeeding are vast [5].

In this study, the rate of exclusive breastfeeding is 51.2%, higher than the average of 42% exclusive breastfeeding rate in Indonesia [6]. In developed countries, rates for six months of exclusive breastfeeding were found to be low: 16.3% in the United States [9], 13.8% in Canada [10] and 13.4% in Hong Kong [11]. Higher prevalence was found in developing county like Indonesia 42%6 and India 46.4% [12]. In previous study, some factors had positive associations with breastfeeding duration. Such as maternal intention to breastfeed, earlier timing of the decision to breastfeed, increased maternal age, higher maternal education, maternal non-smoking or occasional smoking and being married or having a partner [13-16]. Several other factors inconsistently showed positive associations with breastfeeding duration: having a previous child or children, positive previous breastfeeding experience, breastfeeding confidence, higher social class, higher income, higher socioeconomic status, maternal attitude towards infant feeding, having been breastfed oneself, attendance at childbirth education classes, partner's perceived preference for breastfeeding and breastfeeding knowledge [13-16]. Other study found that smoking during pregnancy, Caesarean birth, infant's admission to the intensive care unit and maternal employment status before 6 months of infant's age were negatively associated with exclusive breastfeeding [10].

In this study, factors known to influence exclusive breastfeeding were early breastfeeding initiation (p=0.002), health counselling (p<0.001) and knowledge (p=0.004). Beginning breastfeeding within 1 hour of birth and not being given supplemental feedings or pacifiers were associated with achieving exclusive breastfeeding intention [17]. From previous study in Singapore, antenatal breast feeding education and postnatal lactation support significantly improves rates of exclusive breastfeeding up to six month after delivery [7,13]. Mothers with greater knowledge about breastfeeding benefits were 11.2 times more likely to initiate breastfeeding and 5.62 times more likely to breastfeed at two months than those with lower levels of knowledge [18].

Mother's education and occupation were not associated with exclusive breastfeeding. However, some studies found a negative association between employment plans/returning to work and breastfeeding duration [19]. In previous study, it is found that more unemployed mothers exclusively breastfed than working mothers [2,13].

The antenatal breast feeding education and early breast feeding initiation should be encourage in the primary health care in Indonesia. The government may increase the rate by promoting the rule and health programme in the primary healthcare. Due to the limitation number of the sample in this study, we encourage to do larger population study.

Conclusion

In this study from 60 mothers, 51.2% did exclusive breastfeeding. Factors known to influence exclusive breastfeeding were early breastfeeding initiation (p=0.002), health counselling (p<0.001) and knowledge (p=0.004). Mother's education and occupation were not associated with exclusive breastfeeding. Opportunities exist for increasing health counselling in primary healthcare in Indonesia to motivate mothers to do exclusive breastfeeding.

References

1. WHO (2009) Infant and young child feeding: Model chapter for textbooks for medical students and allied health professionals. Maternal, Newborn, Child and Adolescent Health, Switzerland.
2. Setegn T, Belachew T, Gerbaba M, Deribe K, Deribew A, et al. (2012) Factors associated with exclusive breastfeeding practices among mothers in Goba district, south east Ethiopia: A cross-sectional study. Int Breastfeed J 7: 17.
3. Hanif HM (2011) Trends in breastfeeding and complementary feeding practices in Pakistan, 1990-2007. Int Breastfeed J 6: 15.
4. Nkala TE, Msuya SE (2011) Prevalence and predictors of exclusive breastfeeding among women in Kigoma region, Western Tanzania: A community based cross-sectional study. Int Breastfeed J 6: 17.
5. Kramer MS, Kakuma R (2002) Optimal duration of exclusive breastfeeding. Cochrane Database Syst Rev 15: CD003517.
6. WHO (2014) Indonesia's breastfeeding challenge is echoed the world over. Bull World Health Organ 92: 234-235.
7. Su LL, Chong YS, Chan YH, Chan YS, Fok D, et al. (2007) Antenatal education and postnatal support strategies for improving rates of exclusive breast feeding: Randomised controlled trial. BMJ 335: 596.
8. Sharma IK, Byrne A (2016) Early initiation of breastfeeding: A systemic literature review of factors and barriers in South Asia. Int Breastfeed J 11: 17.
9. Centers for Disease Control and Prevention (CDC) (2012) Breastfeeding Report Card, United States, 2012.
10. Al-Sahab B, Lanes A, Feldman M, Tamim H (2010) Prevalence and predictors of 6-month exclusive breastfeeding among Canadian women: A national survey. BMC Pediatr 10: 20.
11. Leung EY, Au KY, Cheng SS, Kok SY, Lui HK, et al. (2006) Practice of breastfeeding and factors that affect breastfeeding in Hong Kong. Hong Kong Med J 12: 432-436.
12. Patel A, Badhoniya N, Khadse S, Senarath U, Agho KE, et al. (2010) Infant and young child feeding indicators and determinants of poor feeding practices in India: secondary data analysis of National Family Health Survey 2005-06. Food Nutr Bull 31: 314-333.
13. Ananta Y, Gandaputra E, Waiman E, Ayu-Nyoman-Partiwi IG, Marzuki NS, et al. (2016) Exclusive breastfeeding rate and factors associated with infant feeding practices in Indonesia. Paediatr Indones 56: 24-31.
14. Forster DA, McLachlan HL, Lumley J (2006) Factors associated with breastfeeding at six months postpartum in a group of Australian women. Int Breastfeed J 1: 18.
15. Scott JA, Landers MC, Hughes RM, Binns CW (2001) Factors associated with breasfeeding at discharge and duration of breastfeeding. J Paediatr Child Health 37: 254-261.
16. Li L, Li S, Ali M, Ushijima H (2003) Feeding practice of infants and their correlates in urban areas of Beijing, China. Pediatr Int 45: 400-406.

17. Perrine CG, Scanlon KS, Li R, Odom E, Grummer-Strawn LM (2012) Baby-friendly hospital practices and meeting exclusive breastfeeding intention. Pediatrics 130.

18. Kornides M, Kitsantas P (2013) Evaluation of breastfeeding promotion, support and knowledge of benefits on breastfeeding outcomes. J Child Health Care 17: 264-273.

19. Avery M, Duckett L, Dodgson J, Savik K, Henly SJ (1998) Factors associated with very early weaning among primiparas intending to breastfeed. Matern Child Health J 2: 167-179.