RESEARCH ARTICLE

Prevalence and determinants of exclusive breastfeeding; a cross sectional study in Najaf city, Iraq

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Abstract

Objective: To determine the prevalence of exclusive and continued breastfeeding in an urban setting, and the factors influencing the choice.

Method: The cross-sectional study was conducted from February 1 to August 30, 2018, in Najaf, Iraq, and comprised children aged up to 2 years from 12 randomly selected primary healthcare centres. Data were collected using a predesigned questionnaire that had three parts covering the mother, the child and the demographic variables. Data was analysed using SPSS 20.

Results: Of the 373 subjects, 209(56.0%) were males. The overall mean age was 8.8± 6.2 months (range: 1-23 months), while the mean age of the mothers was 26.5±5.8 years (range: 15-46 years). Children aged <6 months were 169(45.3%), and, among them, exclusive breastfeeding was found in 66(39.1%) cases. There was significant relationship between exclusive breastfeeding and feeding of other siblings (p=0.001), admission to hospital (p=0.02), family support (p=0.009), husband's support (p=0.007). Child sickness in early life also had significant association with exclusive breastfeeding (p<0.05).

Conclusions: The prevalence of exclusive breastfeeding was found within the reported estimate for low- and middle-income countries, but much lower than the World Health Organisation recommendation.

Keywords: Exclusive breastfeeding, Breastfeeding, Determinants, Breastfeeding continuation, Iraq.

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Introduction

Breastfeeding (BF), according to the World Health Organisation (WHO) is the normal way of providing young infants with nutrients they need for healthy growth and development. Virtually all women can breastfeed provided they have accurate information, the support of their family, healthcare system and society at large.[1] Exclusive BF (EBF) means nursing infant for six months without any added food.[1] Continuous BF (CBF) complemented with additional food sources is recommended until the second year of life.[1]

BF has a lot of advantages for both the mother and the infant. For example, EBF between 6 months and 2 years is associated with reduction in infant mortality and morbidity, lower risk of necrotising enterocolitis, and reduced risk of allergic disease, obesity, type 2 diabetes, hypertension and hypercholesterolaemia in later life. There is also evidence in advanced countries that EBF protects against gastrointestinal and respiratory infections.[2]

Maternal benefits include a lower risk of developing breast and ovarian cancer, adequate weight recovery, and lactation amenorrhoea which could be a natural birth control.[3]

Globally, only 40% infants receive EBF for the first four months of life, but in Iraq the proportion varies greatly from region to region, like 26.5% in Erbil in the north[4] to 49.6% in Babylon in central Iraq.[5] Overall, it was 25.8% in 2018 which was lower than the already low global figures.[6]

The current study was planned to find out EBF and CBF prevalence in an Iraqi city, and the factors influencing the choice.

Subjects and Methods

The cross-sectional study was conducted from February 1 to August 30, 2018, in Najaf, Iraq. After approval from the ethics review committee of the University of Kufa, Iraq, and the Najaf Directorate of Health, the sample size was calculated using the equation:[7] $n= Z^2\ p\ (1-p) / d2$ where N was the sample size, z was the statistics corresponding to a level of confidence, p was the expected prevalence, and d was precision. The prevalence was taken as 38%,[8] while confidence interval was 95% and precision 5%.

The sample was raised from among children aged under 2 years who attended primary healthcare centres (PHCs) with their mothers either for routine vaccination or for

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integrated management of neonate and child health (IMNCH).

There were 27 PHCs in Najaf city; 15(55.5%) in the northern district, and 12(44.4%) in the southern. Of them, 12(44.4%) PHCs were randomly selected; 8(66.6%) from the northern district, and 4(33.3%) from the southern.

The subjects were randomly enrolled from the selected health centres as clusters. All children under two years of age were included.

Data was collected after taking informed consent from the parents. Chidren whose parents refused to participate were excluded.

The parents were interviewed using a predesigned questionnaire which was based on literature review.[2-5,9] It was reviewed by a panel of six experts for validity, and their recommendations were taken into account. The final version consisted of three parts.

The first part related to the mothers' age, job, education level, residence, antenatal care with BF advice, feeding of previous children, medical history interfering with BF and opinions about BF's importance.

The second part of the questionnaire related to children's information, like age, gender, the birth order in the family, type of nutrition, time of starting BF post-delivery, any health problem post-delivery, need for hospital admission and duration of stay as well as the purpose of the current visit.

The third part of the questionnaire related to family, like the income of the family, whether the family was limited or expanded, and the opinion of family members about breastfeeding practices, especially the husbands, the mothers-in-law, mothers and sisters.

The questionnaire was pilot-tested at the Al-Zahraa Teaching Hospital, Najaf, where 9 children aged <2 years were selected from emergency and paediatrics departments. The pilot samples were excluded from the final study sample.

Data was analysed using SPSS 20. Continuous variables were reported as means ± standard deviation (SD), and categorical variables as frequencies and percentages. Inferential analysis was done using chi-square and Fisher's exact tests. P<0.05 was considered statistically significant.

Results

Of the 373 subjects, 209(56.0%) were males. The overall mean age was 8.8±6.2 months (range: 1-23 months),

Table-1: Relationship between type of feeding and maternal variables.

Variable		Feeding (< 6 months)		Total	χ^2, p value	Feeding (6 m-2 years)		Total	χ^2, p value
		Exclusive N=66 No.(%)	Other N=103 No.(%)			Breastfeeding N=105 No.(%)	Others N=99 No.(%)		
Maternal age	Less than 20 years	5(7.6%)	17(16.5%)	22(13.0%)	5.461, 0.141	8(7.6%)	8(8.1%)	16(7.8%)	1.892,0.595
	20 -29 years	49(74.2%)	59(57.3%)	108(63.9%)		62(59.0%)	53(53.5%)	115(56.4%)	
	30 -39 years	11(16.7%)	24(23.3%)	35(20.7%)		32(30.5%)	37(37.4%)	69(33.8%)	
	40 -46 years	1(1.5%)	3(2.9%)	4(2.4%)		3(2.9%)	1(1.0%)	4(2.0%)	
Occupation	Housewife	61(92.4%)	95(92.2%)	156(92.3%)	0.002, 0.964	16(15.2%)	13(13.1%)	29(14.2%)	0.231,0.97
	Officer	5(7.6%)	8(7.8%)	13(7.7%)		41(39.0%)	41(41.4%)	82(40.2%)	
Education	Illiterate	8 (12.1%)	18(17.5%)	26(15.4%)	6.841,0.08	33(32.4%)	31(31.3%)	64(31.4%)	0.325,0.57
	Primary	34(51.5%)	39(37.9%)	73(43.2%)		15(14.3%)	14(14.1%)	29(14.2%)	
	Secondary	14(21.2%)	37(35.9%)	51(30.2%)		91(86.7%)	83(83.8%)	174(85.3%)	
	College and above	10(15.2%)	9(8.7%)	19(11.2%)		14(13.3%)	16(16.2%)	30(14.7%)	
Residence	Rural	1(1.5%)	1(1.0%)	2(1.2%)	0.1, 0.8	3(2.9%)	3(3.0%)	6(2.9%)	0.005,0.94
	Urban	65(98.5%)	102(99.0%)	167(98.8%)		102(97.1%)	96(97.0%)	198(97.1%)	
Did you receive counselling?	Yes	37	53	90	0.34, 0.56	65(61.9%)	64(64.6%)	129(63.2%)	0.17,0.68
Place of delivery	Hospital	64(97.0%)	100(97.1%)	164(97.0%)	5.04, 0.08	97(92.4%)	92(92.9%)	189(92.6%)	0.28,0.87
	Home	2(3.0%)	0(0.0%)	2(1.2%)		2(1.9%)	1(1.0%)	3(1.5%)	
	Midwife	0(0.0%)	(2.9%)3	3(1.8%)		6(5.7%)	6(6.1%)	12(5.9%)	
Type of delivery	NVD	43(65.2%)	53(51.5%)	76(56.8%)	3.07, 0.08	67(63.8%)	52(52.5%)	119(58.3%)	2.67,0.102
	CS	23(34.8%)	50(48.5%)	73(43.2%)		38(36.2%)	47(47.5%)	85(41.7%)	
Feeding of other siblings	Breast feeding	31(64.6%)	20(29.9%)	51(44.3%)	13.9, 0.001**	54(79.4%)	11(14.1%)	65(44.5%)	62.9,0.001**
	Bottle	8(16.7%)	19(28.4%)	27(23.5%)		4(5.9%)	25(32.1%)	29(19.9%)	
	Mixed	9(18.8%)	28(41.8%)	37(32.2%)		10(14.7%)	42(53.8%)	52(35.6%)	
Contra indication of breast feeding	Yes	0(0.0%)	2(1.9%)	2(1.2%)	1.297, 0.25	0(0.0%)	1(1.0%)	1(0.5%)	1.07,0.30
Mother opinion about breast feeding	With	65(98.5%)	101(98.1%)	166(98.2%)	0.042, 0.83	104(99.0%)	96(97.0%)	200(98.0%)	1.15,0.28

Table-2: Relationship between type of feeding and children's variables.

Variable		Feeding (< 6 months) Exclusive N=66 No.(%)	Other N=103 No.(%)	Total	χ^2, p value	Feeding (6 m-2 years) Breastfeeding N=105 No.(%)	Others N=99 No.(%)	Total	χ^2, p value
Gender	Male	39(40.9%)	62(60.2%)	101(59.8%)	0.02,0.9	52(49.5%)	56(56.6%)	108(52.9%)	1.01,0.31
	Female	27(40.9%)	41(39.8%)	68(40.2%)		53(50%)	43(43.4%)	96(47.1%)	
Child order in the family	First	18(27.3%)	36(35.0%)	54(32.0%)	3.28,0.8	36(34.3%)	20(20.2%)	56(27.5%)	5.77,0.44
	Second	18(27.3%)	18(17.5%)	36(21.3%)		19(18.1%)	23(23.3%)	42(20.5%)	
	Third	12(18.2%)	22(21.4%)	34(20.1%)		26(24.%)	28(28.3%)	54(26.5%)	
	Fourth	10(15.2%)	14(13.6%)	24(14.2%)		9(8.6%)	13(13.1%)	22(10.8%)	
	Fifth	5(7.6%)	7(6.8%)	12(7.1%)		11(10.5%)	10(10.1%)	21(10.3%)	
	Sixth	2(3.0%)	5(4.9%)	7(4.1%)		3(2.9%)	4(4.0%)	7(3.4%)	
	Seventh	1(1.5%)	1(1.0%)	2(1.2%)		1(1.0%)	1(1.0%)	2(1.0%)	
Starting of breast feeding	Half an hour	19(28.8%)	15(14.6%)	34(20.1%)	8.2,0.07				
	One hour	15(22.7%)	16(15.5%)	31(18.3%)					
	More than one hour	32(48.5%)	72(69.9%)	104(61.5%)					
Illness	Yes	24(36.4%)	45(43.7%)	69(40.8%)	0.9,0.34	40(38.1%)	45(45.5%)	85(41.7%)	1.135,0.287
Admission	Yes	4(14.3%)	19(41.3%)	23(31.1%)	5.9,0.02**	8(21.1%)	12(24.5%)	20(23.0%)	0.143,0.705

Table-3: Relationship between type of feeding and family variables.

Variable		Feeding (< 6 months) Exclusive N=66 No.(%)	Other N=103 No.(%)	Total	χ^2, p value	Feeding (6 m-2 years) Breastfeeding N=105 No.(%)	Others N=99 No.(%)	Total	χ^2, p value
Income	< 400$	45(68.2%)	65(63.1%)	110(65.1%)	0.5,0.79	64(61.0%)	54(54.5%)	118(57.8%)	0.88,0.641
	400-800$	19(28.8%)	34(33.0%)	53(31.4%)		35(33.3%)	39(39.4%)	74(36.3%)	
	> 800$	2(3.0%)	4(3.9%)	6(3.6%)		6(5.7%)	6(6.1%)	12(5.9%)	
Type of family	Extended	46(69.7%)	64(62.1%)	110(65.1%)	1.01,0.31	55(52.4%)	56(56.6%)	111(54.4%)	0.36,0.54
	Nuclear	20(30.3%)	39(37.9%)	59(34.9%)		50(47.6%)	43(43.4%)	93(45.6%)	
Husband	With	58(87.9%)	73(70.9%)	131(77.5%)	7.74,0.021**	87(82.9%)	63(63.9%)	150(73.5%)	10.06,0.007**
	Against	0(0.0%)	5(4.9%)	5(3.0%)		1(1.0%)	4(4.0%)	5(2.5%)	
	Neutral	8(12.1%)	25(24.3%)	33(19.5%)		17(16.2%)	32(32.3%)	49(24.0%)	
Mother	With	56(84.8%)	63(61.2%)	119(70.4%)	11.3,0.003**	81(77.1%)	62(62.6%)	143(70.1%)	5.54,0.063
	Against	1(1.5%)	9(8.7%)	10(5.9%)		3(2.9%)	7(7.1%)	10(4.9%)	
	Neutral	9(13.6%)	31(30.1%)	40(23.7%)		21(20.0%)	30(30.3%)	50(25.0%)	
Mother in law	With	48(72.7%)	68(66.0%)	116(68,6%)	2.15,0.341	77(73.3%)	61(61.6%)	138(67.6%)	3.41,0.18
	Against	1(1.5%)	6(5.8%)	7(4.1%)		2(1.9%)	4(4.0%)	6(2.9%)	
	Neutral	17(258%)	29(28.2%)	4627.2%)		26(24.8%)	34(34.3%)	60(29.4%)	
Sisters	With	53(80.3%)	61(59.2%)	114(67.5%)	9.43,0.009**	74(70.5%)	63(63.6%)	137(67.2%)	1.17,0.55
	Against	0(0.0%)	5(4.9%)	5(3.0%)		2(1.9%)	3(3.0%)	5(2.5%)	
	Neutral	13(19.7%)	37(35.9%)	50(29.6%)		29(27.6%)	33(33.3%)	62(30.4%)	

while the mean age of the mothers was 26.5±5.8 years (range: 15-46 years). Majority 365(97.9%) subjects lived in urban areas, 221(59.2%) were from low socioeconomic class, 127(34.0%) were from middle socioeconomic class, and 18(4.8%) were from high socioeconomic class.

Children aged <6 months were 169(45.3%), and, among them, EBF was found in 66(39.1%) cases. The remaining 204(54.69%) children were aged <6 months, and, of them, 105(51.5%) were on CBF plus complementary feeding. The most common cause for PHC visit was for vaccination 266(71.3%), followed by respiratory problems 70(18.8%).

There were significant relationships between EBF, CBF and feeding of other siblings as 31(64.6%) of the infants on EBF had their siblings exclusively breastfed compared to 20(29.9%) from other types of feeding (p=0.001) and 54(79.4%) vs 11(14.1%) (p=0.0001).

Maternal age, education, occupation, residence, receiving counselling during PHC visit, type and place of delivery and any contraindications of breastfeeding showed no significant association with the type of feeding (Table-1).

Regarding the child-related variables, only the admission of the infant during the first few days of life significantly

affected the choice of EBF as 24(85.7%) of those who were not admitted were on EBF (p=0.02). Among those aged >6 months, admission to hospital did not affect the choice (Table-2).

EBF increased significantly when husband (p=0.021) and sister (p=0.009) of the mother were supporting, and husband's support also affected CBF (p=0.007) (Table-3).

Among 154(1.3%) mothers choosing bottle-feeding, the commonest cause was milk insufficiency 82(53.2%), followed by mother's work 14(9.1%) and doctor's advice 12(7.8%).

Discussion

BF is one of the most effective ways to ensure child health and survival. If BF could be increased to near-universal levels, about 820,000 children's lives would be saved every year.[9] Globally, only 40% of infants under six months of age receive EBF. In low- and middle-income countries (LMICs), only 37% of children younger than six months of age receive EBF. The WHO recommends EBF for the first six months of life and CBF with appropriate complementary food until two years of age.[10]

The prevalence of EBF was 39.1% in the current study, which is a bit higher than those reported for LMICs, higher than the prevalence reported previously in Iraq in 2012 (19.6%), and much higher than the prevalence reported by many studies in different countries,[11-13] The prevalence was lower than that for some other countries.[14,15] But it is approximately the same as in Saudi Arabia.[16] These disparities could be attributed to the differences in socio-demographic features, cultures, methods and sampling techniques used across the different studies.

Many studies have examined the maternal factors that can affect EBF initiation. These factors are different from one study to another, including higher income, maternal education, maternal age, mode of delivery, receiving workshops or BF counselling,[17-22] as they were significantly associated with starting and continuation of EBF. In the current study, other such relationships could not be proved statistically. This might indicate that high-quality counselling is more important than number of times the mother received counselling. Skin-to-skin contact is less practised in Iraqi hospitals despite WHO recommendations.[15,23]

In the current study, the most potential factors associated with EBF and CBF were the history of EBF for other siblings, which means that the mother who had experienced BF benefits chose it for her new baby. Admission of the child to the neonatal care unit in the first hours of life, because the child was separated from the mother as she was discharged from hospital a few hours after normal vaginal delivery and a day after caesarean section, usually leaves the mother-in-law to take care of the sick child with her little knowledge about the importance of EBF and the ability of breast milk expression to be used for child feeding.[6,11,18,19] The family support, especially of the husband and the sister, plays an important role behind EBF.[11,24] This indicated the need for excessive efforts regarding partners and family education about EBF and involving them in the antenatal care counselling sessions.[20,21]

The current study revealed no significant association between maternal variables and CBF, which is in contrast to the results from a systematic review of 19 studies.[25] Studies have also revealed an association between antenatal counselling and BF prolongation.[26] One study demonstrated that vaginal delivery positively related to BF prolongation,[27] while another study documented that caesarean section played a role in early BF.[28] Mothers working outside the home are less likely to maintain BF,[29,30] but an East Timor study revealed that mothers working outside were more likely to maintain BF.[25] In terms of residence and BF maintenance, different findings have been reported, indicating cultural differences.[26] This difference might reflect the need for more efforts regarding the education of the mothers and their families about the importance and benefits of BF regardless of their age, education, occupation, parity, residence and BF counselling. Also, efforts are also needed to counter the negative attitude among young mothers about the effect of BF on breast contour and shape which, with increasing formula milk advertisements, is causing decrease in the number of mothers who practice EBF and CBF for up to two years.

Conclusions

EBF prevalence was lower than the WHO recommendation. Iraqi women were choosing formula milk regardless of their age, education, occupation, residence, type and place of delivery, children's gender, order and illness. The main determinants for EBF were EBF history, admission of the child to the hospital early in life and family support and encouragement.

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References

1. World Health Organisation.The global strategy for infant and young child feeding. Geneva: WHO, 2003.
2. Abekah-Nkrumah G, Antwi MY, Nkrumah J, Gbagbo FY. Examining

working mothers' experience of exclusive breastfeeding in Ghana. Int Breastfeed J. 2020; 15:56.
3. Zhou Q, Chen H, Younger KM, Cassidy TM, Kearney JM. "I was determined to breastfeed, and I always found a solution": successful experiences of exclusive breastfeeding among Chinese mothers in Ireland. Int Breastfeed J. 2020; 15:47.
4. Sdeeq N, Saleh A. Determinants of exclusive breastfeeding practice for the first six months in mothers with infants between 6 and 15 months of age in Erbil city, Iraq: A cross-sectional study. Zanco J Med Sci. 2021; 25:406-14.
5. Alwash RA, Al-Saffar AJ. Prevalence of Exclusive Breastfeeding and Some of Its Determinants in Hilla City, 2018. Iraqi Postgrad Med J. 2020; 19:220-5.
6. Exclusive breastfeeding (% of children under 6 months). The word bank data. [Online] 2019 [Cited 2019 January 13]. Available from: URL: https://data.worldbank.org/indicator/SH.STA.BFED.ZS?locations=IQ.
7. CharanJ, BiswasT .How to Calculate Sample Size for Different Study Designs in Medical Research? Indian J Psychol Med. 2013; 35:121-6.
8. WHO, Infant and young child feeding data by country. [Online] [Cited 2019 December 21]. Available from: URL: http://www.who.int/nutrition/databases/infantfeeding/countries/irq.pdf?ua=1.
9. Victora C, Bahl R, Barros A, Franca GVA, Horton S, Krasevec J, et al. "Breastfeeding in the 21st Century: Epidemiology, Mechanisms and Lifelong Effect." Lancet. 2016; 387:475-90.
10. WHO. Global Breastfeeding Scorecard. [Online] 2018 [Cited 2018 November 18]. Available from: URL: https://www.who.int/nutrition/publications/infantfeeding/global-bf-scorecard-2018.pdf?ua=1.
11. Nafee Elsayed HM, Al-Dossary LA. Exclusive Breastfeeding, Prevalence and Maternal Concerns: Saudi and Egyptian Mothers. J Educ Pract.2016; 7:5-11.
12. Al-Sahab B, Lanes A, Feldman M, Tamim H. Prevalence and predictors of 6-month exclusive breastfeeding among Canadian women: a national survey. BMC Pediatr. 2010; 10:20.
13. Agho KE, Dibley MJ, Odiase JI, Ogbonmwan SM. Determinants of exclusive breastfeeding in Nigeria. BMC Pregnancy Childbirth. 2011; 11:2.
14. Noughabi ZS, Tehrani SG, Foroushani AR, Nayeri F, Baheiraei. A Prevalence and factors associated with exclusive breastfeeding at 6 months of life in Tehran: a population-based study. East Mediterr Health J. 2014; 20:24-32.
15. Behzadifar M, Saki M, Behzadifar M, Mardani M,Yari F, Ebrahimzadeh F, et al. Prevalence of exclusive breastfeeding practice in the first six months of life and its determinants in Iran: a systematic review and meta-analysis. BMC Pediatr.2019; 19:384.
16. Raheel H, Tharkar S. Why mothers are not exclusively breast feeding their babies till 6 months of age? Knowledge and practices data from two large cities of the Kingdom of Saudi Arabia. Sudan J Paediatr. 2018; 18:28-38.
17. Ramiro González MD, Ortiz Marrón H, Arana Cañedo-Argüelles C, Esparza Olcina MJ, Cortés Rico O, TerolClaramonte M, et al. Prevalencia de la lactanciamaterna y factoresasociados con el inicio y la duración de la lactanciamaternaexclusivaen la Comunidad de Madrid entre los participantesen el estudio ELOIN. An Pediatr (Barc). 2018; 89:32-43.
18. Tang K, Wang H, Tan SH, Xin T, Qu X, Tang T, et al. Association between maternal education and breast feeding practices in China: a population-based cross-sectional study. BMJ Open.2019; 9:e028485.
19. Kelaye T. Assessment of Prevalence of Exclusive Breast Feeding Practice and Associated Factors among Under Six-Month-Old Children Selected Woreda South Nation Nationality of People Regional State, Ethiopia, 2016. J Nutrition Health Food Sci. 2017; 5:1-7.
20. Sonko A, Worku A. Prevalence and predictors of exclusive breastfeeding for the first six months of life among women in Halaba special woreda, Southern Nations, Nationalities and Peoples' Region/SNNPR/, Ethiopia: a community based cross-sectional study. Arch Public Health. 2015; 73:53.
21. Joshi PC, Angdembe MR, Das SK, Ahmed S, Faruque ASG, Ahmed T. Prevalence of exclusive breastfeeding and associated factors among mothers in rural Bangladesh: a cross-sectional study. Int Breastfeed J. 2014; 9:7.
22. Ayalew T. Prevalence of Exclusive Breastfeeding Practices and associated factors among mothers in Bahir Dar city, North West Ethiopia: a community based cross-sectional study. Heliyon. 2020; 6:e04732.
23. Mosquera PS, Lourenço BH, Gimeno SGA, Malta MB, Castro MC, Cardoso MA. et al. Factors affecting exclusive breastfeeding in the first month of life among Amazonian children. PLoS One.2019; 14:e0219801.
24. Tsai SY. Influence of partner support on an employed mother's intention to breastfeed after returning to work. Breastfeed Med. 2014; 9:222–30.
25. Senarath U, Dibley MJ, Agho KE. Breastfeeding practices and associated factors among children under 24 months of age in Timor-Leste. Eur J Clin Nutr. 2007; 61:387-97.
26. Santanaa GS, Giuglianib ER, Vieiraa TO, Vieiraa GO. Factors associated with breastfeeding maintenance for 12 months or more: a systematic review. J Pediatr (Rio J). 2018; 94:104-22.
27. Senarath U, Siriwardena I, Godakandage SS, JayawickramaH, Fernando DN, Dibley MJ. Determinants of breastfeeding practices: an analysis of the Sri Lanka Demographic and Health Survey 2006---2007.Matern Child Nutr. 2012; 8:315-29.
28. Saeed G, Fakhar S, Imran T, Abbas LK. The effect of modes of delivery on infants' feeding practices. Iran J Med Sci.2011; 36:128-32.
29. Langellier BA, Pia Chaparro M, Whaley SE. Social and institutional factors that affect breastfeeding duration among WIC participants in Los Angeles County, California. Matern Child Health J. 2012; 16:1887-95.
30. Hajian-Tilaki KO. Factors associated with the pattern of breast-feeding in the north of Iran. Ann Hum Biol. 2005; 32:702-13.