Original Article

The Comparison of Parents' Educational Level on the Breastfeeding Status Between Turkman and Non-Turkman Ethnic Groups in the North of Iran

Veghari G, Ahmadpour-Kacho M[1], Zahedpasha Y[1]

Department of Biochemistry and Nutrition, School of Medicine, Golestan University of Medical Sciences, Gorgan, [1]Department of Pediatrics and Non-Communicable Pediatric Disease Research Center, Babol University of Medical Sciences, Babol, Iran

Address for correspondence:
Mr. Gholamreza Veghari,
Non-Communicable Pediatric Disease Research Center,
Babol University of Medical Sciences, Babol, Iran and Metabolic Disorders Research Center, Golestan University of Medical Sciences, Gorgan, Iran.
E-mail: grveghari@yahoo.com

Abstract

Background: Mother's milk plays an important role in infant's health, and World Health Organization (WHO) recommends infants should be breastfed for 2 years or up. **Aim:** The main objective of this study was to evaluate the breastfeeding status based on parents' educational level with comparison between Turkman and non-Turkman ethnic groups in the North of Iran in 2010. **Subjects and Methods:** This is a descriptive, cross-sectional study, which was carried out on 6519 subjects (3897 = non-Turkman and 2622 = Turkman) in urban and rural areas. Data have been collected through interviewing with primary school children's mothers. The schools and students were selected using multi-cluster random sampling methods. Breastfeeding was defined based on WHO predominant definition. **Results:** Of all mothers, 5.8% (377/6519) breastfed for 6 months, 34.8% (2265/6519) for 7-18 months, 57.4% (3745/6519) for 18-24 months and 2% (132/6519) didn't breastfeed their infants. Breastfeeding prevalence at 19-24 months in Turkman ethnic group (64.7%; 1696/2622) was significantly more than in non-Turkman ethnic group (52.6%; 2049/3897) ($P < 0.01$) besides early weaning prevalence (at 6 months) in Turkman group was significantly less than in non-Turkman group (4.7%; 123/2622 vs. 6.5%; 254/3897) ($P < 0.01$). Odds ratio for weaning before 6 months in non-Turkman mothers were 0.563 (0.365-0.786, confidence interval [CI] 95%) in 1-12 years schooling and 0.665 (0.486-0.910, CI: 95%) in uneducated groups compared to college educated. This ratio in Turkman fathers was 3.413 (1.726-6.746, CI: 95%) in 1-12 years schooling compared with college educated. **Conclusion:** The duration of breastfeeding was longer among Turkman compared with non-Turkman mothers, and longer duration of breastfeeding was associated with higher educational level in the Turkman but not in the non-Turkman mothers.

Keywords: Breastfeeding, Education, Ethnicity, Iran

Introduction

Containing all of the vitamins and minerals, human milk has a main role in children's growth. Breastfeeding has nutritional, immunologic, developmental, psychological, social, economic, and environmental benefits.[1-3]

Access this article online	
Quick Response Code:	Website: www.amhsr.org
	DOI: *****

Breastfeeding is multifaceted, and some socio-demographic related factors to it include: Ethnicity, mother's age and work, parents' education, social-economic status, insufficient milk supply, infant health problem, maternal obesity, smoking, parity, delivery procedure and maternal interest.[4-7]

Breastfeeding is a well-established behavior in Iran, and it is emphasized in Islam religious.[8] It's history traced back to the fourth century AH in the Canon Medicine Text book, which has written, by Avicenna.[9] The breastfeeding Promotion Committee in the Iranian Ministry of Health was established in 1991, to promote and monitor breastfeeding expansion. In addition, another aim of this committee is preventing the diseases and reducing child mortality.[10] Based on the results

of the Health and Disease Study in Iran (2000), breastfeeding and exclusive breastfeeding was reported in 90% and 45% of children, respectively. In Iran, exclusive breastfeeding decreased from 44% in 2000 to 27% in 2004.[11]

A strong association between education and health knowledge was reported in some studies[12,13] and breastfed duration in high educated mothers was longer than in low educated ones.[14-16]

Golestan province located in the north of Iran (South-east of Caspian sea) and of 1.7 million people who live in this area, 56.1% are urban, and 43.9% are rural whose main job is agriculture. Some ethnic groups live in the north of Iran as Fars-native, Turkman and Sistani.[17] Nutrition status differences among those ethnic groups have been identified.[18,19]

Based on the inadequate studies on the breastfeeding status in the north of Iran and the barriers of expanding breastfeeding, it is necessary to design a research project about it. The main aim of this study is to evaluate the breastfeeding status based on parents' educational levels between Turkman and non-Turkman ethnic groups in the north of Iran in 2010.

Subjects and Methods

This cross-sectional and descriptive study was carried out through a multi-cluster random sampling methods on 6519 primary school children (3897 = non-Turkman and 2622 = Turkman) in 112 schools of urban and rural regions in the north of Iran during 3 months in 2010. In Iran, primary school includes the children in the age of 6-11 years. The sample size with a confidence interval (CI) level 95% and a maximum marginal error about 0.02 was estimated at least 2401 and it was increased for more accuracy. Each district, primary schools and grade at schools included as a cluster. A questionnaire about breastfeeding status and social-economic conditions was completed through interviewing with mothers based on ethnicity and parent's education. The reliability was assessed using Cronbach's alpha coefficient and found to be 0.84. In general, 136 (2.1%) participants who didn't remember their children breastfeeding status, the mothers who were not interested in joining the study and the children from single parents family were excluded from the study.

The World Health Organization (WHO) definition of predominant breastfeeding is: "The infant's predominant source of nourishment is breast milk, however maybe the infants also have received water or water-based drinks (sweetened or flavored water, teas, infusions, etc.); fruit juice; oral rehydration salts; drop and syrup forms of vitamins, minerals, medicines; and folk fluids (in limited quantities).[20] Breast lactation either from the mother or from the wet nurse included breastfeeding. Weaning was defined transition from breastfeeding to other foods. In this study, exclusive breastfeeding was not evaluated because the mothers probably cannot remember their exclusive breastfeeding duration correctly.

The ethnic groups consist of two groups: (1) Turkman: The inter marriage of this ethnic group with others was rare, and this group can be distinguished by phenotype. (2) non-Turkman: All of non-Turkman ethnic groups living in this area have been included.

Based on public education system in Iran, the educational levels were expressed as actual years of schooling. The parents' educational level is divided into three groups: (1) Uneducated: People who neither read nor write. (2) People are having 1-12 years education at schools (3) and people who are college educated.

Statistical Package for Social Sciences (SPSS) version 16.0 (SPSS Inc., Chicago IL, USA) was used for statistical data analysis. Chi-square test and logistic regression were used for analyzing and *P* valueless than 0.05 was considered as significations. Mothers who were not interested in joining this study or could not remember their children breastfeeding status were excluded from the study. This study was approved by Ethical Research Committee in Golestan University of Medical Sciences and consent was received from all participants.

Results

As a whole, 25.7% (1675/6519) of mothers and 12.6% (821/6519) of fathers were uneducated and the number of educated mothers in Turkman group were fewer than in non-Turkman group (66.9%; 1755/2622 vs 79.3%; 3485/3897) ($P < 0.01$). While uneducated fathers in Turkman group were less than in non-Turkman group (10.7%; 280/2622 vs 13.9%; 541/3897) ($P < 0.01$). College education in Turkman mothers was less than in non-Turkman mothers (2.7%; 72/2622 vs 10.5%; 408/3897) ($P < 0.01$) [Table 1].

Breastfeeding prevalence at 19-24 months and before 6 months were seen in 57.4% (3745/6519) and 5.8% (377/6519) of mothers, respectively. The breastfeeding prevalence at 19-24 months in Turkman ethnic group (64.7%; 1696/2622) was significantly more than in non-Turkman group (52.6%; 2049/3897) ($P < 0.01$) and weaning prevalence before 6 months in Turkman ethnic group (4.7%; 123/2622)

Table 1: Characteristics of subjects based on parent's education (*n*=6519)

Ethnicity	Parents of subjects	Educational level, *n* (%)		
		Uneducated	1-12 years schooling	College
non-Turkman (3897)	Mother	808 (20.7)[a]	2681 (68.8)	408 (10.5)
	Father	541 (13.9)[b]	2770 (71.1)	586 (15.0)
	P	<0.01	0.03	<0.01
Turkman (2622)	Mother	867 (33.1)[a]	1683 (64.2)	72 (2.7)
	Father	280 (10.7)[b]	2027 (77.3)	315 (12.0)
	P	<0.01	<0.01	<0.01

[a,b]: Chi-square is significant between similar letters. *P*<0.05

significantly is less than in non-Turkman ethnic group (6.5%; 254/3897) ($P < 0.01$) [Table 2].

There was no significant difference between mother's education and breastfeeding prevalence at 19-24 months in two ethnic groups but in Turkman group, there is a positive relation between mother's higher education and lower breastfeeding duration. In Turkman mothers, an inverse association was seen between educational level and early weaning prevalence ($P = 0.04$) but in non-Turkman group it was positive ($P < 0.01$).

There was a positive association between non-Turkman fathers' education levels and breastfeeding prevalence at 19-24 months ($P < 0.01$), while this trend was seen in Turkman fathers in early weaning prevalence ($P < 0.01$) [Table 3].

Odds ratios (ORs) and 95% CI were obtained from logistic regression analysis for weaning at 6 months and using college educated as reference categories. In comparison with non-Turkman college educated mothers, the OR in uneducated and in 1-12 years of schooling was 0.563 (0.365-0.786, CI: 95%) and 0.665 (0.486-0.910, CI: 95%), respectively. There was not significant association in other comparing groups [Table 4].

Figure 1 shows the association between parents' educational levels and weaning prevalence before 6 months in two ethnic groups. There is a negative association between Turkman parents' educational levels and weaning before 6 months, but in non-Turkman and in total it is divergent. The association between fathers' education and weaning prevalence before 6 months is contrary.

Table 2: The comparison of breastfeeding duration between two ethnic groups (*n* [%])

Ethnicity	Breastfeeding duration (month)				
	0-6	7-12	13-18	19-24	No
non-Turkman (3897)	254 (6.5)	418 (10.7)	1075 (27.6)	2049 (52.6)	101 (2.6)
Turkman (2622)	123 (4.7)	159 (6.1)	613 (23.4)	1696 (64.7)	31 (1.2)
Total (6519)	377 (5.8)	577 (8.9)	1688 (25.9)	3745 (57.4)	132 (2.0)
P	<0.01	<0.01	<0.01	<0.01	<0.01

Discussion

On the whole, 57.4% of northern infants in the north of Iran were breastfed at 19-24 months and breastfeeding duration in Turkman group was longer than in non-Turkman group. Compared with non-Turkman, the association between education and breastfeeding is steady in Turkman mothers, but in fathers it was vice versa.

Breastfeeding prevalence for 2 years was seen in 57% of families in Iran.[21] According to the WHO report,[22] the breastfeeding prevalence for 2 years in countries have similar socio-demographic status with Iran is different, including Afghanistan (54%), Bangladesh (91%), India (65.8%), Pakistan (54.9%), Iraq (35.5%), Egypt (30.5%), Turkey (21.6%), Sri Lanka (83.9%), Turkmenistan (26.9%), Yemen (42.1%) and the United Arab Emirate (28.9%). Although the date studies is not at the same; the breastfeeding duration in our area is more impressive than in Iraq, Egypt, Turkey, Turkmenistan, Yemen, and the United Arab Emirate.

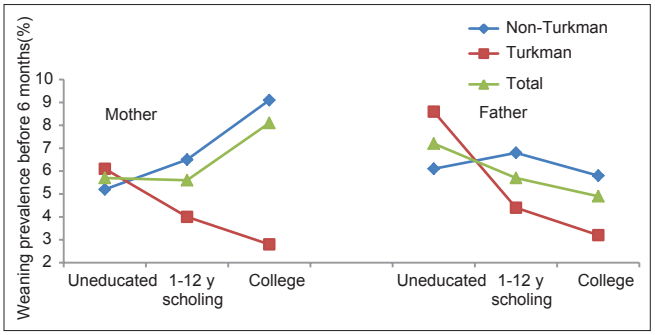

Figure 1: The comparison of weaning prevalence before 6 moths in two ethnic groups based on parents' education

Table 3: Association between educational levels and breastfeeding duration based on ethnicity (*n* [%])

Educational level	Mother					Father				
	Breastfeeding duration – month					Breastfeeding duration – month				
	0-6	7-12	13-18	19-24	No	0-6	7-12	13-18	19-24	No
non-Turkman (3897)										
Uneducated	42 (5.2)[a]	107 (13.2)[b]	208 (25.7)	432 (53.5)	19 (2.4)[d]	33 (6.1)	76 (14.0)	144 (26.6)	281 (51.9)	7 (1.3)
1-12 years schooling	175 (6.5)[a]	272 (10.1)[b]	764 (28.5)	1405 (52.4)	65 (2.4)[d]	187 (6.8)	280 (10.1)	783 (28.3)	1445 (52.2)	75 (2.7)
College	37 (9.1)[a]	39 (9.6)[b]	103 (25.2)	212 (52.0)	17 (4.2)[d]	34 (5.8)	62 (10.6)	148 (25.3)	323 (55.1)	19 (3.2)
Turkman (2622)										
Uneducated	53 (6.1)[c]	63 (7.3)	202 (23.3)	535 (61.7)	14 (1.6)	24 (8.6)[e]	23 (8.6)	58 (20.7)	167 (59.6)[f]	8 (2.9)[j]
1-12 years schooling	68 (4.0)[c]	93 (5.5)	393 (23.4)	1112 (66.1)	17 (1.0)	89 (4.4)[e]	117 (5.8)	469 (23.1)	1331 (65.7)[f]	21 (1.0)[j]
College	2 (2.8)[c]	3 (4.2)	18 (25.0)	49 (68.1)	31 (1.2)	10 (3.2)[e]	19 (6.0)	86 (27.3)	198 (62.9)[f]	2 (0.6)[j]
Total (6519)										
Uneducated	95 (5.7)	170 (10.1)	410 (24.5)	967 (57.7)	33 (2.0)[k]	60 (7.2)	101 (12.1)	203 (24.4)	453 (54.4)[m]	16 (1.9)
1-12 years schooling	243 (5.6)	365 (8.4)	1157 (26.5)	2517 (57.7)	82 (1.9)[k]	277 (5.7)	410 (8.5)	1267 (26.1)	2798 (57.7)[m]	97 (2.0)
College	39 (8.1)	42 (8.8)	121 (25.2)	261 (54.4)	17 (3.5)[k]	45 (4.9)	82 (8.5)	236 (25.7)	536 (58.3)[m]	21 (2.3)

[a,b,c,e,d,e,f,j,m,k]: Chi-square test is significant among similar letters. $P<0.05$

Table 4: The results of logistic regression analysis of association between weaning before 6 months and parents' educational levels in two ethnic groups (CI 95%)

Educational level	Non-Turkman OR (95% CI)	*P*	Turkman OR (95% CI)	*P*
Mother				
College	Ref (1)		Ref (1)	
1-12 years schooling	0.665 (0.486-0.910)	0.01	1.870 (0.451-7.749)	0.14
Uneducated	0.563 (0.365-0.786)	<0.01	2.944 (0.707-12.261)	0.39
Father				
College	Ref (1)		Ref (1)	
1-12 years schooling	1.043 (0.767-1.418)	0.35	3.413 (1.726-6.746)	<0.01
Uneducated	0.845 (0.562-1.298)	0.46	1.481 (0.807-2.719)	0.21

CI: Confidence interval, OR: Odds ratio

In present study, the breastfeeding duration in two ethnic groups is not equal and in Turkman group is so much more. In USA block women were less likely to initiate breastfeeding.[23,24] Breastfeeding prevalence at first 6 months, was 46.6%, 30.1% and 45.2% among whites, blacks, and Hispanics in the USA, respectively.[25] Breastfeeding pattern was changed in Ethiopian immigrant people in Israel[26] and among rural immigrant women to urban area in Bolivia.[27] In low-income families recruited from local Philadelphia health centers, the anticipated breastfeeding in native-born, non-Hispanic African American women was higher than in non-Hispanic white women.[28] These studies showed that the socio-demographic differences in ethnic groups are the substantial factors for differences in breastfeeding behaviors. In line with these studies, the association between breastfeeding and ethnicity was seen among families in the north of Iran. Veghari[18] reported that nutritional status in Turkman children is better than others in the north of Iran. The social behavior in Turkman people differs from others in the north of Iran and it is possibly an underlying factor for more breastfeeding prevalence in this ethnic group and it should be evaluated in further studies.

In the present study, the role of parents' education in the breastfeeding status in two ethnic groups is not alike. The comparison with non-Turkman ethnic group, education has a positive association with increasing of the breastfeeding duration in Turkman ethnic group. Compared with other ethnic groups, socio-behaviors in Turkman ethnic group are different in Iranian northern people. It is not clear why education is in line with breastfeeding duration in Turkman mothers. In comparison with other ethnic groups, the outdoor works is scarce and mothers' education is low in this group.

The association between education and breastfeeding duration in countries is different with regard to education definition is not similar. Rakhshani[29] found the low education as a related factor for breastfeeding in Iran and Wijndaele[30] reported the some evidence about early weaning and low education of mothers, while long exclusive breastfeeding was seen in Swedish college educated parents.[31] Mothers' education is associated with breastfeeding duration in Bangladesh.[32] More education associated with short breastfeeding duration in some developing countries, [5,6,33,34] but in industrialized countries, such as Denmark, appears to be the contrary.[33,35] Education is possibly a proxy for socioeconomic status and it is related to more exposure to advertisements and the more availability to infant formulas.[35]

Low education in mothers is associated with the interruption of exclusive breastfeeding for infants up to 6 months in southern Brazil.[36] Less educated Iraqi mothers knew less about breastfeeding concepts than high educated mothers, besides breastfeeding duration among them is longer.[37] US foreign-born mothers were significantly tend to breastfeed more than US-born mothers.[38] On the whole, the dissimilar effect of the parents' education on the breastfeeding status in two ethnic groups under studied in the north of Iran is related to changing of socio-behavioral factors and it will be studied in future.

In this study, some of mothers couldn't remember their children breastfeeding status appropriately and we did not assess the parents' job, family income, birth order and mothers' age. Besides, we used only data recalled by mother and the failure to distinguish between exclusive and partial breastfeeding was not evaluated in our study. In addition, we did not provide a proper statistical test to consider the design effect caused by cluster sampling because the data has not been saved according to cluster numbers. They are limitations of our study.

Conclusion

The duration of breastfeeding was longer among Turkman compared to non-Turkman mothers, and longer duration of breastfeeding was associated with higher educational level in the Turkman but not in the non-Turkman mothers.

Regards to expanding of academic education in Iran, there is an anxiety for early weaning in non-Turkman women whose population is the most in Iran. We suggest a strategy planning like allowing breastfeeding in college or workplace; establish an education program about breastfeeding beneficial, increase in maternity leave, and other incentive program by government.

Acknowledgments

The authors would like to thank the medical and administrative staff in the Primary Health Care Centers of Golestan University of Medical Sciences for their valuable assistance during the field work. Also, the Research Deputy of the University is thanked for supporting this project financially.

References

1. Gartner LM, Morton J, Lawrence RA, Naylor AJ, O'Hare D, Schanler RJ, *et al.* Breastfeeding and the use of human milk. Pediatrics 2005;115:496-506.

2. Innis SM. Perinatal biochemistry and physiology of long-chain polyunsaturated fatty acids. J Pediatr 2003;143:S1-8.
3. Lawrence RA. Infection, allergy, and the protection from breastfeeding. Breastfeed Med 2009;4:1-2.
4. Thulier D, Mercer J. Variables associated with breastfeeding duration. J Obstet Gynecol Neonatal Nurs 2009;38:259-68.
5. Giashuddin MS, Kabir M. Breastfeeding duration in Bangladesh and factors associated with it. Indian J Commun Med 2003;28:34-8.
6. Giashuddin MS, Kabir M. Duration of breast-feeding in Bangladesh. Indian J Med Res 2004;119:267-72.
7. Killersreiter B, Grimmer I, Bührer C, Dudenhausen JW, Obladen M. Early cessation of breast milk feeding in very low birthweight infants. Early Hum Dev 2001;60:193-205.
8. Raisler J, Alexander C, O'Campo P. Breast-feeding and infant illness: A dose-response relationship? Am J Public Health 1999;89:25-30.
9. Modanlou HD. Avicenna (AD 980 to 1037) and the care of the newborn infant and breastfeeding. J Perinatol 2008;28:3-6.
10. Sadvandian S, Barakati H. *[The law of breastfeeding promotion and mothers' supports during lactation (1995) and executive bylaw (1996) and subsequent attachments (2001-2007)].* 1 ed. Ministry of Health and Medical Education, Health Deputy, Office for children's health and breastfeeding promotion; 2010.
11. Marandi A, Afzali HM, Hossaini AF. The reasons for early weaning among mothers in Teheran. Bull World Health Organ 1993;71:561-9.
12. Gazmararian JA, Williams MV, Peel J, Baker DW. Health literacy and knowledge of chronic disease. Patient Educ Couns 2003;51:267-75.
13. Wolf MS, Davis TC, Cross JT, Marin E, Green K, Bennett CL. Health literacy and patient knowledge in a Southern US HIV clinic. Int J STD AIDS 2004;15:747-52.
14. Morisky DE, Kar SB, Chaudhry AS, Chen KR, Shaheen M, Chickering K. Breast feeding practices in Pakistan. Pak J Nutr 2002;1:137-42.
15. Aryal TR. Breastfeeding in Nepal: Patterns and determinants. JNMA J Nepal Med Assoc 2007;46:13-9.
16. Lande B, Andersen LF, Baerug A, Trygg KU, Lund-Larsen K, Veierød MB, *et al.* Infant feeding practices and associated factors in the first six months of life: The Norwegian infant nutrition survey. Acta Paediatr 2003;92:152-61.
17. Statistical Center of Iran. Population and Housing Census [Online]. 2012. Available from: http://www.amar.org.ir/Portals/1/Iran/census-2.pdf. [Last accessed on 2012 Jun 10].
18. Veghari G, Golalipour M. The comparison of nutritional status between turkman and non-tutkman ethnic groups in North of IRAN. J Appl Sci 2007;7:2635-40.
19. Veghari G, Asadi J, Eshghinia S. Impact of ethnicity upon body composition assessment in Iranian Northern children. J Clin Diagn Res 2009;3:1779-83.
20. World Health Organization. Breastfeeding and replacement feeding practices in the context of mother-to-child transmission of HIV. Available form: http://www.who.int/child-adolescenthealth/publications/NUTRITION/WHO_FCH_CAH_01.21.htm. [Last accessed on 2011 Jun 11].
21. Olang B, Farivar K, Heidarzadeh A, Strandvik B, Yngve A. Breastfeeding in Iran: Prevalence, duration and current recommendations. Int Breastfeed J 2009;4:8.
22. World Health Organization. Infant and young child feeding data by country. Available from: http://www.who.int/nutrition/databases/infantfeeding/countries/. [Last accessed on 2014 Apr 09].
23. Liu J, Smith MG, Dobre MA, Ferguson JE. Maternal obesity and breast-feeding practices among white and black women. Obesity (Silver Spring) 2010;18:175-82.
24. Forste R, Weiss J, Lippincott E. The decision to breastfeed in the United States: Does race matter? Pediatrics 2001;108:291-6.
25. Centers for Disease Control and Prevention. Progress in Increasing Breastfeeding and Reducing Racial/Ethnic Differences — United States, 2000-2008 Births. Available form: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6205a1.htm?s_cid=mm6205a1_w. [Last accessed on 2014 Mar 06].
26. Rubin L, Nir-lnbar S, Rishpon S. Breastfeeding patterns among Ethiopian immigrant mothers, Israel, 2005-2006. Isr Med Assoc J 2010;12:657-61.
27. McCann MF, Bender DE, Rangel-Sharpless MC. Infant feeding in Bolivia: A critique of the World Health Organization indicators applied to demographic and health survey data. Int J Epidemiol 1994;23:129-37.
28. Lee HJ, Rubio MR, Elo IT, McCollum KF, Chung EK, Culhane JF. Factors associated with intention to breastfeed among low-income, inner-city pregnant women. Matern Child Health J 2005;9:253-61.
29. Rakhshani F, Mohammadi M. Continuation of breastfeeding: Is this a problem in Southeast Iran? Breastfeed Med 2009;4:97-100.
30. Wijndaele K, Lakshman R, Landsbaugh JR, Ong KK, Ogilvie D. Determinants of early weaning and use of unmodified cow's milk in infants: A systematic review. J Am Diet Assoc 2009;109:2017-28.
31. Huus K, Ludvigsson JF, Enskär K, Ludvigsson J. Exclusive breastfeeding of Swedish children and its possible influence on the development of obesity: A prospective cohort study. BMC Pediatr 2008;8:42.
32. Akter S, Rahman MM. Duration of breastfeeding and its correlates in Bangladesh. J Health Popul Nutr 2010;28:595-601.
33. Grummer-Strawn LM. The effect of changes in population characteristics on breastfeeding trends in fifteen developing countries. Int J Epidemiol 1996;25:94-102.
34. Hjern A, Bremberg S. Social aetiology of violent deaths in Swedish children and youth. J Epidemiol Community Health 2002;56:688-92.
35. Vestermark V, Høgdall CK, Plenov G, Birch M, Toftager-Larsen K. The duration of breast-feeding. A longitudinal prospective study in Denmark. Scand J Soc Med 1991;19:105-9.
36. do Nascimento MB, Reis MA, Franco SC, Issler H, Ferraro AA, Grisi SJ. Exclusive breastfeeding in southern Brazil: Prevalence and associated factors. Breastfeed Med 2010;5:79-85.
37. Abdul Ameer AJ, Al-Hadi AH, Abdulla MM. Knowledge, attitudes and practices of Iraqi mothers and family child-caring women regarding breastfeeding. East Mediterr Health J 2008;14:1003-14.
38. Bonuck KA, Freeman K, Trombley M. Country of origin and race/ethnicity: Impact on breastfeeding intentions. J Hum Lact 2005;21:320-6.

How to cite this article: ????

Source of Support: Nil. **Conflict of Interest:** None declared.