Original Research Article

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A study of determinants of infant feeding practices in a resettlement colony of Delhi, India

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ABSTRACT

Background: Optimal infant and young child feeding practices, especially exclusive breastfeeding for the first 6 months, could contribute significantly in reducing childhood malnutrition and improving child survival. The present study is designed to assess the prevalence of feeding practices among the mothers in an urban resettlement colony of Delhi

Methods: A community based cross- sectional study was carried out in a resettlement colony of East Delhi among mothers with infants less than 6 months of age. Mothers were enrolled from Anganwadi Centres using systematic random sampling and a questionnaire was used to record information on feeding practices. Statistical analysis used: Chi square test, t test and multiple logistic regression analysis was done.

Results: A total of 350 children were included. Breastfeeding (BF) was initiated within 1 h of birth in 51.7% of children. Pre-lacteal feeds were given by 18.5% of mothers. The prevalence of exclusive BF (EBF) for less than 6 months was 42% (147/350). One third (117/350) of mothers gave artificial feeding to their infants. Exclusive breastfeeding decreased with increasing age of infants and was significantly lower in families with higher income and who gave pre-lacteal feeding. Similarly, introduction of artificial feeding was significantly higher in families with higher income and working mothers

Conclusions: In the present study the infant feeding practices in the resettlement colony were not satisfactory. There is need for skilled, sustained and practical help to the pregnant and lactating mothers by skilled counsellors at health facilities.

Keywords: Artificial feeding, Exclusive breastfeeding, Initiation of breastfeeding

INTRODUCTION

The current under- five mortality rate (U5MR) of India is 40 per 1000 live-births. More than 2 million out of 6.5 million under-5 child deaths each year are in South Asia, out of which 1.4 million are contributed by India alone. Exclusive breastfeeding during the first six months and continued breastfeeding for two years and beyond could contribute significantly in reducing childhood

malnutrition and improving child survival.³⁻⁶ Study shows that predominantly breastfed 0-5 months infants had 48% more risk of mortality; and it was almost threefold higher in partially breastfed infants and 14-fold higher in infants who were not breastfed.⁷ Breastfeeding provides protection against non-communicable diseases, particularly obesity, diabetes and high systolic blood pressure.⁸

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Breastfeeding also improves IQ, educational attainment and monthly income with increasing breastfeeding duration.⁹

In spite of the crucial role of optimal Infant and Young Child Feeding in preventing child mortality, NCDs and malnutrition, the situation of IYCF practices in India remains dismal. Although the timely initiation of breast feeding and exclusive breastfeeding has increased from 24.5% to 44.6% and 46.4% to 64.5% in eight years between National Family Health Survey-3(NFHS-3) and (Rapid Survey on Children) RSOC 2013-14; out of 26 million babies born in India annually, 14.5 million are not able to get optimal feeding practices during first year of life. ^{10,11} There are few available data on the status of IYCF practices in urban poor population. This study is aimed to assess the feeding practices among mothers in an urban resettlement colony of Delhi.

METHODS

A community based cross- sectional study was carried out in a resettlement colony of East Delhi among mothers with infants less than 6 months of age. Considering the prevalence of exclusive breastfeeding as 34.5% (NFHS-3) in Delhi and with an absolute difference of 5% on either side, with a confidence interval of 95%, a sample size of 350 was calculated using the Epi Info Software. The area has 5 blocks and 4 sub-blocks in each block; for a sample size of 350, 70 subjects from each block i.e. 18 subjects from each sub-block were included. The subjects were selected from Anganwadi centres (AWCs). There are total 45 AWCs in the area. With an average of 2 AWC in each sub block, from each sub-block 1 AWC was randomly selected. List of mothers of children less than 6 months of age group was obtained from the selected AWC. By systematic random sampling, every second child was selected, and the mother was contacted at home. Premature born infants or those with chronic diseases or any birth defects such as congenital heart disease, cleft lip/cleft palate and Down's syndrome were not included in the study. The study was conducted from April 2015 to July 2015.

Data on socio- demographic status, obstetric factors, current feeding practices and factors associated with breastfeeding were collected using a pre-tested and semiopen-ended structured questionnaire by investigators. Age of the child was calculated in completed months on the date of interview. prevalence of exclusive breastfeeding was determined by 24 hours recall method (based on recall of the previous day) as suggested by WHO.12 In the present study exclusive breastfeeding was defined as giving the infant no other food or drink; not even water except breast milk or expressed breastmilk from his or her mother, but allowing the infant to receive oral rehydration solution, drop and syrup (vitamin, mineral and medicine) as per the WHO definition.¹³

Statistical analysis

Data were entered into MS Excel and statistical analysis was done by using SPSS version 20.0 software package. To identify associated factors, first a bivariate analysis using Chi square test was performed for each independent variable with the outcome of interest. The age of the child was analyzed as a continuous variable and thus 't' test was done for the bivariate analysis. Finally, multivariable logistic regression was done to determine independent predictors of exclusive breastfeeding.

Ethical clearance was obtained from Institutional Ethics Committee. Prior to interview, written informed consent was obtained from the mothers. The participants were also assured about the confidentiality of the data.

RESULTS

Socio-demographic characteristics of mothers

A total of 350 mothers with children less than 6 months of age were included for analysis. The mean age of the mothers was 25.6 years (SD \pm 3.9 years). 45.4% (159/350) of the mothers were in the age group of 20-25 years, 46% (161/350) mothers were educated up to middle or higher school. Majority, 96.8 % (339/350) of the mothers were home-makers, 64.2% (225/350) belonged to the schedule castes or schedule tribes. About half (175/350) of the mothers belonged to households with a monthly income of \geq 10000 while 38.5% (135/350) were from those with income between 5001-9999. Out of the total respondents, 59.1% (207/350) had a joint family. The mean age of the infants was 3.1 months (SD \pm 1.6), 182 (52%) were male and 168 (48%) were female (Table 1).

58.8% (206/350) of the respondents were multiparous. 98.2% (344) of the mothers had received antenatal care during their pregnancy. 54.3% (187/350) registered in their first trimester and 86.6% (298/344) had more than four ANC visits. However, only 50.8% (178) were advised or informed about breastfeeding during their ANC visits or pregnancy. 87% (155/178) of those who were advised or informed got the information from doctors, 6.1% (11/178) from nurses or ANM, 2.8% (5/178) from AWW and 3.9% (7/178) from mothers-inlaw or relatives. Regarding the place of delivery 87.7% (307/350) mothers delivered at health institutions, 71.1 % (249/350) in government health facilities and 16.5% (58/350) in the private health facilities while 12.2% (43/350) delivered at home. 76% (266/350) of mothers delivered vaginally and 24% (84/350) of mothers had a caesarean section. In the present study, 48.5% (170/350) infants had normal birth weight, 28.5% (100/350) had low birth weight while 22.8% (80/350) of mothers were not aware of the birth weight.

Feeding practices

In the present study, 98.2% (344/350) of mothers initiated breastfeeding. However, out of these mothers only 51.7% (178/344) initiated breastfeeding within one hour of birth. 18.5% (65/350) mothers gave pre-lacteal feed to their infants. Animal milk 32.3% (21/65), infant formula 27.6% (18/65) and *Janam Ghutti* 10.7% (7/65) were the most commonly used pre-lacteal feeds. 42% (147/350) of

mothers reported practicing exclusive breastfeeding as per previous day recall. The exclusive breastfeeding rate dropped from 67.5% (52 /77) in infants aged less than one month to 46.1% (48 /104) at less than 4 months and 27.8% (47/169) at less than 6 months of age (Figure 1). The mean age duration of exclusive breastfeeding was 3.1 months. (SD \pm 1.6) Perception of insufficient milk supply is the most frequently cited reason by the mothers for not practicing EBF.

Table 1: Socio-demographic characteristics of mothers (n=350).

Variables	Frequency	%						
Age of mothers (years)								
<20	28	8.0						
20-25	159	45.4						
26-30	129	36.8						
> 30	34	9.7						
Maternal education								
Illiterate	53	15.1						
up to primary level	37	10.5						
Middle & High school	161	46						
More than high school	99	28.2						
Occupation of mothers								
Non-working	339	96.8						
Working	11	3.1						
Caste								
SC & ST	225	64.2						
OBC	59	16.8						
General	66	18.8						
Household monthly income								
< 50000	22	6.2						
5001- 9999	135	38.5						
≥10000	175	50.0						
Don't know	18	5.1						
Types of family								
Nuclear	143	40.8						
Joint	207	59.1						

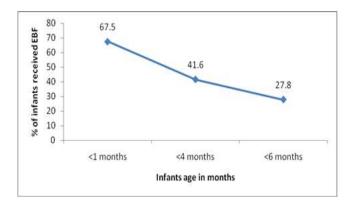


Figure 1: Trend of exclusive breastfeeding in infants less than six months of age.

One third (117) of mothers gave artificial milk to their infants, out of these 76.9% (90/117) gave animal milk and 23% (27/117) infant formula in last 24 hours. 92.2% (83/90) of infants received diluted animal milk. Regarding the advice on artificial feeding, 59.2% (16/27) of the mothers who used infant formula were advised by the health professionals while 58.8% (53/90) mothers self-decided to use animal milk. Majority (88.8%) of mothers used bottle for artificial feeding.

Factors associated with exclusive breastfeeding (EBF)

In bivariate analysis, other than mother's family income and pre-lacteal feeding none of the factors were associated with EBF at 0.05 level of alpha (Table 2). Odds of EBF was 3 times higher among mothers with

family income less than Rs.5000 per month as compared to family income more than Rs. 5000 per month. (COR=3.03; 95% CI: 1.26-7.30). Similarly, those mothers who did gave pre-lacteal feeds to their infants were 2.15

less likely to exclusively breastfeed compared to those who did not give pre-lacteal feeds (COR = 2.15; 95% CI: 1.19, 3.90).

Table 2: Bivariate and multivariate analysis of factors associated with exclusive breastfeeding among mothers with children less than 6 months of age.

Variables	Exclusive breastfeeding		Unadjusted OR with 95% CI	P-value	Adjusted OR with 95% CI	P-value
	Given	Not given				
Mother's age				0.648		0.324
<20	15 (53.6)	13 (46.4)	1.65(0.60-4.52)	0.332	2.51 (0.71- 8.82)	0.151
21-25	65 (40.9)	94 (59.1)	0.99(0.47-2.09)	0.975	1.05 (0 .40- 2.70)	0.918
26-30	53 (41.1)	76 (58.9)	0.99 (0.462-2.147)	0.992	1.12 (0 .45- 2.77)	0.795
>30	14 (41.2)	20 (58.8)	1.0		1.0	
Mother's educat						
Illiterate	18 (34.0)	35 (66.0)	0.67(0.36-1.24)	0.194	0.81(0 .39- 1.71)	0.596
Literate	129 (43.4)	168 (56.6)	1.0		1.0	
Mother's occupa	ation					
House maker	145 (42.8)	194 (57.2)	3.36(0.72-15.80)	0.087	4.64(0 .83-25.86)	0.080
Working outside	2 (18.2)	9 (81.8)	1.0		1.0	
Monthly income	:			0.013*		0.086
<5000	15 (62.5)	9 (37.5)	3.03(1.26-7.30)	0.014*	2.92 (1.09- 7.83)	0.033*
5001-9999	67 (46.9)	76 (53.1)	1.60(1.02-2.50)	0.039*	1.43 (0 .81- 2.50)	0.208
≥10000	65 (35.5)	118 (64.5)	1.0		1.0	
Type of family	(5 2 12)	2 (3 13)				
Nuclear	67 (46.9)	76 (53.1)	1.40(0.91-2.16)	0.127	1.38(0 .78- 2.43)	0.259
Joint	80 (38.6)	127 (61.4)	1.0		1.0	
Parity	,	,				
Primipara	59 (41.0)	85 (59)	1.0	1.0	1.0	
Multipara	88 (42.7)	118 (57.3)	1.08(0.70-1.66)		1.35 (0 .77- 2.37)	0.294
Type of delivery		,	,		,	
Normal	112(42.1)	154 (57.9)	1.02(0.62-1.67)	0.943	1.08(0 .60- 1.94)	0.787 1
Caesarean	35 (41.7)	49 (58.3)	1.0		1.0	
Place of delivery				0.113		0.241
Home	12 (27.9)	31 (72.1)	0.55(0.24-1.28)	0.164	0.46(0 .16- 1.29)	0.144
Govt Institute	111 (44.6)	138 (55.4)	1.14(0.64-2.03)	0.659	0.98(0 .50- 1.92)	0.971
Pvt Institute	24 (41.4)	34 (58.6)	1.0			
No of ANC visits	S			0.160		
none	1 (16.7)	5 (83.3)	1.0		1.0	0.624
1 to 3 visits	10 (31.2)	22 (68.8)	2.27(0.23-22.07)	0.479	1.37(0 .11- 15.85)	0.799
≥4 visits	136 (43.6)	176 (56.4)	3.86(0.45-33.46)	0.220	2.00 (0 .20- 19.80)	0.551
Counselling duri	ing pregnancy/		s		· · · · · · · · · · · · · · · · · · ·	
Yes	79 (44.4)	99 (55.6)	1.22(0.80-1.87)	0.358	1.22(0 .75- 1.99)	0.420
No	68 (39.5)	104 (60.5)	1.0		1.0	
Pre-lacteal feedi		·				
Yes	18 (27.6)	47 (72.3)	2.15(0 1.19- 3.90)	0.011*	0.40(0 .20-0 .80)	0.010*
No	129 (45.2)	156 (54.7)	1.0		1.0	
Infant age in mo	, ,					
Mean age (SD)	2.54 (1.66)	3.56 (1.41)	0.66(0.57-0.76)		0.61(0 .52- 0.721)	< 0.001

^{*}p<0.05, Figures in parentheses indicate percentages; T test; was used to study association of EBF with age.

On multivariable regression analysis after adjusting for other variables in the model, family monthly income and no pre-lacteal feeding remained the independent predictors of exclusive breastfeeding. (AOR=2.92; 95% CI: 1.09-7.83), (AOR=0.40; 95% CI: 0.20-0.80)

The odds of EBF was 4.64 times higher among the homemakers as compared to working mothers but was not statistically significant due to small number of working mothers (AOR=4.26; 95% CI: 0.83-25.86). EBF showed a negative association with age, the mean age of EBF infants was 2.54 months as compared to 3.56

months in those not EBF (p<0.005). With increase in one month of age a decrease of 34% in exclusive breast feeding rate was observed on bivariate analysis which increased to 38% on multivariate analysis.

Mothers with family income of Rs. 10000 or more were more likely to give artificial feed (animal milk /infant formula) as compared to those with lesser income (P=0.009). Introduction of artificial milk was higher among the working mothers as compared to non-working mothers (P<0.05).

Table 3: Factors associated with introduction of artificial feeding at less than 6 months.

	Artificial feeding (animal milk/infant formula) in last 24 hrs		Chi- Square	P-Value	Odds Ratio	95% confidence Interval
Variables	Given (n=117)	Not given (n=233)				
Mother's education						
Illiterate	18(34.0)	35(66.0)			1.03	0.56-1.91
Literate	99(33.3)	198(66.7)	0.008	0.929	1.0	
Mother's occupation						
House maker	110 (32.4)	229 (67.9)			1.0	
Working outside from home	7 (63.6)	4 (36.4)	4.66	*0.031	3.64	1.04-12.71
Monthly Income						
< 5000	4 (16.7)	20 (83.3)			1.0	
5001-9999	39 (27.3)	104 (72.7)	9.504	*0.009	1.88	0.60-5.83
≥10000	74 (40.4)	109 (59.6)			3.39	1.12-10.34
Type of family						
Nuclear	40 (28.0)	103 (72.0)			0.66	0.41-1.04
Joint	77(37.2)	130 (62.8)	3.24	0.072	1.0	
Types of delivery						
Normal	83(31.2)	183(68.8)			0.67	0.40-1.11
Cesarean	34(40.5)	50(59.5)	2.467	0.116	1.0	
Place of delivery						
Home	17(39.5)	26(60.5)			0.93	0.42-2.07
Govt Institute	76(30.5)	173(69.5)	3.31	0.191	0.62	0.35-1.12
Pvt Institute	24(41.4)	34(58.6)			1.0	
Counselling during pre	gnancy/ ANC C	heck-ups				
Yes	53(29.8)	125(70.2)			1.0	
No	64(37.2)	108(62.8)	2.172	0.14	1.40	0.90-2.18

^{*}p<0.05

DISCUSSION

In the present study, the prevalence of exclusive breastfeeding among mothers with infants less than six months of age was 42%. This is lower compared to that reported in RSOC 2013-14) at national level (64.9%) and studies from Delhi (56%-57%) and Kolkata (66.7%). Note that the studies conducted in Gujarat (37%) and Tamil Nadu (34%) report lower prevalence than present study. However, the finding was similar to the community-based study done in Medak district in

Andhra Pradesh (41%) and the NFHS-3 Figures. ^{10,17} The prevalence of exclusive breastfeeding declined with increasing infant age, from 67.5% at less than one month to 27% at four to five months which is similar to that observed in NFHS-3. ¹⁰ Similar findings were observed from other national and international studies. ¹⁸⁻²² The possible reason cited for decline in rate of exclusive breastfeeding by the mothers was their perception of inadequate quantity of breastmilk which may be due to lack of confidence in breastfeeding so they added artificial milk. Similar findings were also reported by

Sinhababu et al and Taneja et al. ^{19,23} Out of 33.4% of infants who were artificially fed majority (76.9%) received animal milk and 23% received infant formula. Majority (91.2%) of infants received diluted animal milk, similar to that reported by Bhanderi et al. ²⁴

In the present study, although 86.6% mothers had four or more antenatal visits, and 50.8% mothers received advice regarding breastfeeding during their antenatal visits or pregnancy but these two factors did not show any significant association with prevalence of EBF. The possible explanation for such finding could be that mothers need 'confidence building, support and skilled counselling' from IYCF trained health care providers and not just advice on breastfeeding or delivering messages. Similar finding was also observed by Chudasama et al and Singh el al. ^{15,25}

Mother's family income was significantly associated with exclusive breastfeeding in this study.EBF was more among the mothers with lower family income as compared to higher family income. Several other studies have also shown a higher prevalence of exclusive breastfeeding amongst the mothers with the lower monthly family income. 26-28 Consumption of artificial feeding (animal milk/infant formula) was higher among the mothers who belonged to higher family income as compared to those belonging to lower family income. The reasons might be that mothers of higher income group may have more opportunity to get exposed to the markets and social media, which is major influence these days. Secondly these mothers could also afford buying artificial milk. Further research is needed to understand the factors influencing mothers' attitudes and perceptions on infant feeding. Previous studies have also found socioeconomic factors to be significantly associated with infant formula. 29,30

Another factor that was shown to have a significant association with EBF is pre-lacteal feeding. Those mothers who did not give pre-lacteal feeds to their infant were more likely to exclusively breastfeed compared to those who gave pre-lacteal feeds. This is also consistent with a study finding from Ethopia. ³¹An explanation could be that introduction of pre-lacteal feed may cause decrease in infants ability to suckle their mothers' breast which may cause decrease in milk production and which will in-turn compel mothers to introduce artificial pre-lacteal feeding early.

Exclusive breastfeeding was higher among the mothers who were homemakers (42.8%) than in working mothers (18.2%) but was not found statistically significant due to smaller number.

On the other side, the consumption of artificial feeding was significantly associated with working mothers. The frequency was higher among the working mothers (63.6%) as compared to homemakers (24.8%). A study from Rajasthan has also highlighted that mother's

employment compromises infant feeding and care.³² An increase in number of women joining work outside home without appropriate support mechanisms for breastfeeding is yet another major cause of starting artificial feeds.³³ This could be because of mother's perception that she has to give artificial feed when she is away from home for work and lack of family and health professionals support to give skilled help to these working mothers about how to give EBF.

CONCLUSION

In the present study feeding practices in the mothers of the resettlement colony were not satisfactory; the prevalence of exclusive breastfeeding was lower than the national figure. The practice of giving artificial feeds was common with majority of the mothers giving diluted feeds. The only factors related to exclusive breastfeeding was family income and pre-lacteal feeding while for artificial feeding family income and working status of the mothers were found to be significant. There is a need for sustained and practical help to the pregnant and lactating mothers by skilled counsellors at the community level for alleviating the poor feeding practices so as to improve EBF.

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Ethical approval: The study was approved by the

Institutional Ethics Committee

REFERENCES

- Registrar General of India), Sample Registration System (SRS) Statistical Report 2013. Ministry of Home Affairs, Government of India. New Delhi 2014.
- The State of the World's Children 2014 in numbers. Every child counts. http://www.unicef.org/ sowc2014/numbers/
- 3. UNICEF/ WHO 2003. Global strategy for infant and young child feeding. Switzerland: WHO. Retrieved from http://www.who.int/nutrition/ publications/infantfeeding/9241562218/en/index.htmlDsdsda
- 4. Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS, Bellagio Child Survival Study Group. How many child deaths can we prevent this year? Lancet. 2003;362:65-71
- Bhutta ZA, Ahmed T, Black RE, Cousens S, Dewey K, Giugliani E, et al Maternal and Child Undernutrition Study Group. What works? Interventions for maternal and child undernutrition and survival. Lancet. 2008;371:417-40
- 6. Roberts T, Carnahan E, Gakido E. Burden attributable to suboptimal breastfeeding: a cross-country analysis of country-specific trends and their relation to child health inequalities. Lancet. 2013;381:S126.
- Sankar MJ, Sinha B, Chowdhary R, Bandari N, Taneja S, Martines J, Bahl R. Optimal breastfeeding practices and infant and child mortality: a systematic review and meta-analysis. Acta Pædiatr. 2015;104:3-13.
- 8. Horta BL, Victora CG (WHO). 2013 Long-term effects of breastfeeding a systematic review. Available at:

- http://apps.who.int/ iris/bitstream/ 10665/ 79198/ 1/9789241505307_eng.pdf.
- Victora CG, Horta BL, Loret de Mola C, Quevedo L, Pinheiro RT, Gigante DP, Gonçalves H, Barros FC. Association between breastfeeding and intelligence, educational attainment, and income at 30 years of age: a prospective birth cohort study from Brazil. Lancet Glob Health. 2015;3(4):199-205.
- National Family Health Survey 2005-06, Government of India. Available from http://www.nfhsindia.org/nfhs3.html. Accessed 14th May 2014.
- Rapid Survey on Children (2013-2014). Ministry of Women and Child Development, Government of India.http://wcd.nic.in/issnip/National_Fact%20sheet_ RSOC%20 02-07-2015.pdf
- World Health Organization 2008. WHO, UNICEF, USAID, AED, UCDAVIS, IFPRI. Definitions. Indicators for assessing infant and young child feeding practices: Part 1: 1-19.
- Gupta A, Chhabra P. Infant and young child feeding practices and its determinants in an urbanized village of Delhi. Int J Med Public Health. 2015;5(3): 228-31.
- 14. Dasgupta A, Naiya S, Ray S, Ghosal A, Pravakar R and Ram P. Assessment of infant and young child feeding practices among the mothers in a slum area of Kolkata: A cross sectional study. Int J Biol Med Res. 2014;5(1): 3855-61.
- Chudasama RK, Patel PC, Kavishwar AB. Determinants of exclusive breastfeeding in south Gujarat region of India. J Clin Med Res. 2009;1:102-8.
- Radhakrishnan S, Balamuruga SS. Prevalence of exclusive breastfeeding practices among rural women in Tamil Nadu. Int J Health Allied Sci. 2012;1:64-7.
- 17. Meshram LA, Venkaiah K, Brahmam GNV. Impact of feeding and breastfeeding practices on the nutritional status of infants in a district of Andhra Pradesh, India. Natl Med J India.2012;25(4):201-6.
- Banapurmath CR, Sobti R. Status of infant and young child feeding: Davanagere (state of Karnataka). Bulletin of Breastfeeding Promotion Network of India. 2003:16-8.
- Sinhababu A, Mukhopadhyay DK, Panja TK, Saren AB, Mandal NK, and BiswasAB. Infant- and Young Child-feeding Practices in Bankura District, West Bengal, India. J Health Popul Nutr. 2010;28(3): 294-9.
- Roy S, Dasgupta A, Pal B. Feeding Practices of Children in an Urban Slum of Kolkata. Indian J Community Med. 2009;34(4):362-3.
- 21. Seid A, Yesuf ME, Koye DN. Prevalence of Exclusive Breastfeeding Practices and associated factors among mothers in Bahir Dar city, Northwest Ethiopia: a community based cross-sectional study. Int Breastfeed J. 2013;8:14.

- Saha KK, Frongillo EA, Alam DS, Ariffen SE, Persson LA, Rasmussen KM. Appropriate infant feeding practices result in better growth of infants and young children in rural Bangladesh. Am J Clin Nutr. 2008;87:1852-9.
- 23. Taneja DK, Saha R, Dabas P, Gautam VP, Mehra TM. A study of infant feeding practices and underlying factors in a rural area of Delhi. Indian J Community Med. 2003;27:107-11.
- 24. Bhanderi D, Choudhary SK. A study of feeding practices in under five children in semi urban community of Gujarat. Indian J of Prev Soc Med. 2011;42(1):60-6.
- Singh G. Estimating the duration of full breastfeeding with survival analysis procedure. Indian J Community Med. 2007;32:18-21.
- 26. Chhabra R, Grover VL, Aggarwal OP, Dubey KK. Breast feeding patterns in an urban resettlement colony of Delhi. Indian J Pediatr. 1998;65(6):867-72.
- Kumar V, Sharma R, Vanaja K, Real M. Breast feeding pattern in urban infants in Chandigarh. Indian J Pediatr. 1984;51(408):13-9.
- 28. Choudhary AK, Bankwar V, Choudhary A. Knowledge regarding breastfeeding and factors associated with its practice among postnatal mothers in central India. Int J Med Sci Public Health. 2015: 4(7):973-6.
- Tarrant RC, Pereira MS, McCarthy RA, Younger KM, Kearney JM. Mothers who formula feed: their practices, support needs and factors influencing their infant feeding decision. Child Care Practice. 2013;19(1):78-94.
- 30. Yarnoff B, Allaire B, Detzel P. Mother, infant, and household factors associated with the type of food infants receive in Developing Countries. Front Pediatr. 2014;2:14.
- 31. Mekuria G, Edris M. Exclusive breastfeeding and associated factors among mothers in Debre Markos, Northwest Ethiopia: a cross-sectional study. Int Breastfeed J. 2015;10(1).
- 32. Nair M, Ariana P, Webster P. Impact of mothers' employment on infant feeding and care: a qualitative study of the experiences of mothers employed through the Mahatma Gandhi National Rural Employment Guarantee Act. BMJ. 2014;4(4):3-26.
- 33. Gupta A, Dadhich JP. Infant malnutrition/breastfeeding. In: Quah SR, Heggenhougen HK, eds. Int Encyclopedia of Public Health. 2008; 3:554-62.

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