

Original Research Article

Breastfeeding practices among mothers attending a tertiary care hospital in Kashmir

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ABSTRACT

Background: According to world health organization (WHO), exclusive breastfeeding (EBF) for the first 6 months of life is vital for optimal growth and development of a child. During this period, other liquids or breastfeeding substitutes should not be given to infants except for medicine or oral rehydration solution.

Methods: This cross-sectional study was conducted in the child health clinic of the department of community medicine, SKIMS. The study participants were mothers accompanying their infants coming for immunisation at the child health centre. A semi-structured, questionnaire was used to interview the mothers regarding breast feeding practices of their infants. The data was entered in Microsoft excel 2010 and analysed using SPSS Version 20.

Results: The prevalence of EBF was 38.7%. Mixed feeding was received by 54% and 7.3% were formula-fed. Variables that were significantly associated with EBF include residence and mother's education. Infants from rural area were more likely to be exclusively breastfed compared to those from urban area (OR=0.365; 95% CI=0.166-0.802; p=0.012). Mothers with up to 9 years of formal education were more likely to exclusively breastfed their children than those with more than 9 years of formal education (OR=0.300; 95% CI=0.121-0.744, p=0.009).

Conclusions: To ensure that the rate of EBF among the mothers is increased, all the stakeholders (spouse, family and government) as well as the people at work place must play their part to the best extent.

Keywords: Breastfeeding, Misconception, Bottle-feeding

INTRODUCTION

According to WHO, EBF for the first 6 months of life is vital for optimal growth and development of a child. During this period, other liquids or breastfeeding substitutes should not be given to infants except for medicine or oral rehydration solution.¹ Breastfeeding is one of the most effective ways to ensure child health and survival. However, only 1 out of 3 infants are exclusively breastfed for the first 6 months.²

In developing countries like India, only 37% of children are breastfed exclusively for the first 6 months of life.³ As India is one of the leading countries of the world in the number of preterm births, under 5 years malnutrition, and

neonatal mortality, it becomes crucial to understand the factors associated with EBF to help improve the nutritional status for millions of infants. To achieve the United Nations sustainable development goal 3 (SDG3) of reducing neonatal mortality to at least as low as 12 neonatal deaths per 1000 live births by 2030, it is essential to understand the factors that influence EBF practices.⁴

The low prevalence of EBF in most developing countries is attributed to various maternal and child-related factors such as place of residence, sex, age of the child, number of births and space between children, mother working outside home, maternal age and educational level, economic status, mothers' domestic work burden, access

to mass media, maternal healthcare access and use, and maternal knowledge on infant and young child feeding practices.⁵⁻¹¹

The present study, therefore, aimed to determine the breastfeeding practices among mothers attending the child health clinic of a tertiary care hospital in Kashmir.

METHODS

This cross-sectional study was conducted in the child health clinic of the department of community medicine, SKIMS Soura from July 2021 to August 2021. A convenient sampling technique was used to include the participants. The study participants were mothers accompanying their infants coming for immunisation at the child health centre. All children coming for MR vaccination at 9 months were included. As WHO recommends EBF for a period of first six months, we included children who were 9 months of age so that breastfeeding practices are completely assessed by that period. A semi-structured, pre-designed and pre-tested questionnaire was used to interview the mothers regarding breast feeding practices of their infants after obtaining informed verbal consent from them. Information regarding socio-demographic and other general characteristics was obtained. Reasons for non-EBF were assessed by an open-ended question. A total of 150 participants were assessed during our study period which formed our sample size.

Exclusion criteria

Mothers who did not provide consent and children who were not accompanied by mothers were excluded. The data was entered in Microsoft excel 2010 and analysed using SPSS version 20. To identify factors associated with EBF, binary logistic regression was performed. A p value of less than 0.05 was considered statistically significant.

Ethical clearance

As the study does not involve any intervention, ethical approval was not required.

RESULTS

A total of 150 mothers were included as study participants in our study period. Among them, 68.7% belonged to urban area. More than half (52.7%) were females, 56.7% were of birth order ≥ 2 , 88% were of normal birthweight and majority (92%) were of term gestation. For majority of the infants (90.0%) the mode of delivery was cesarean section. For 84%, maternal age less than 35 years at the time of delivery. Majority of mothers (80%) had more than 9 years of formal education. Complications during pregnancy were present in 19.3% of the mothers of infants.

Table 1: General characteristics of the children of study participants.

Characteristic	Group	Frequency	Percentage (%)
Residence	Rural	47	31.3
	Urban	103	68.7
Gender	Male	71	47.3
	Female	79	52.7
Birth order	1	65	43.3
	≥ 2	85	56.7
Birth weight (kg)	<2.5	18	12.0
	≥ 2.5	132	88.0
Gestation	Preterm	12	8.0
	Term	138	92.0
Mode of delivery	Cesarean	135	90.0
	Vaginal	15	10.0
Maternal age at delivery (years)	<35	126	84.0
	≥ 35	24	16.0
Mother education	0-9	30	20
	>9	120	80
Maternal complications in pregnancy	Yes	29	19.3
	No	121	80.7

Figure 1 depicts the breastfeeding practices among study participants. Only 38.7% had exclusive breastfed their children, 54.0% had received mixed feeding and 7.3% were formula-fed.

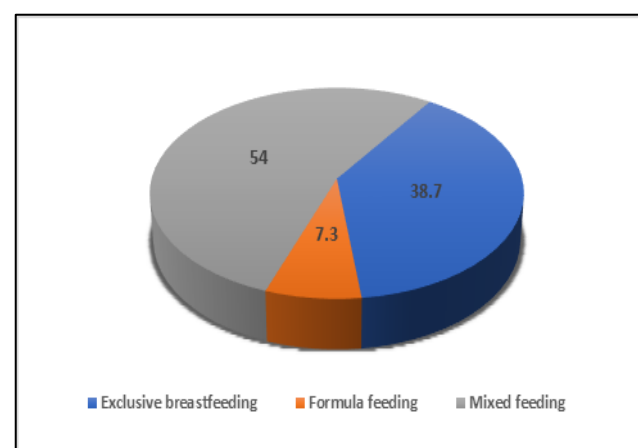


Figure 1: Breastfeeding practices among study participants.

Table 2 shows the reasons for non- EBF. Inadequate or lack of production of milk was stated as a reason by 34.7% of mothers, 9.3% were advised non-EBF by a doctor. For 7.3% of mothers, baby refused breastfeeding at birth and 6.7% of infants used to cry even after breastfeeding. Furthermore, maternal illness responsible in 4.0% of infants, 3.3% were non exclusively breastfed as their mothers were working, 2.0% of mothers wanted to make their babies used to formula feeding whereas sore/inverted nipple contributed to 2.0% of non- EBF.

A total of 1.3% of mothers already breastfeeding their previous child. Only 0.7% of infants (1 out of 150) were non-exclusively breastfed because of infant's ill health.

Table 3 shows the determinants of EBF among mothers. Variables that were significantly associated with EBF include residence and mother's education. Infants from rural area were more likely to be exclusively breastfed compared to those from urban area (OR=0.365; 95% CI=0.166-0.802; $p=0.012$). Mothers with up to 9 years of formal education were more likely to exclusively breastfed their children than those with more than 9 years of formal education (OR=0.300; 95% CI=0.121-0.744, $p=0.009$). Full term infants were 5.5 times more likely to be exclusively breastfed compared to preterm infants (OR=5.550; 95% CI=0.624-49.354). However, this difference was not statistically significant ($p=0.124$).

Table 2: Reasons for non-EBF.

Variables	N	Percent (%)
Production of breastmilk inadequate/absent	52	34.7
BF not recommended by doctor	14	9.3
Baby didn't take breastmilk at birth	11	7.3
Baby used to cry after BF	10	6.7
Maternal illness	6	4.0
Working mother	5	3.3
Make baby used to it	3	2.0
Sore/inverted nipple	3	2.0
Last child on BF	2	1.3
Baby's health status	1	0.7

Table 3: Logistic regression of determinants of EBF.

Variables	EBF, N (%)	Non-EBF, N (%)	OR (95%CI), P value	AOR (95%CI), P value
Residence				
Rural	25 (53.2)	22 (46.8)	2.410 (1.189-4.887), 0.015	0.365 (0.166-0.802), 0.012
Urban	33 (32.0)	70 (68.0)		
Gender				
Male	26 (36.6)	45 (63.4)	0.849 (0.439-1.641), 0.626	1.338 (0.642-2.787), 0.438
Female	32 (40.5)	47 (59.5)		
Birth order				
1	22 (33.8)	43 (66.2)	1.436 (0.735-2.807), 0.290	1.253 (0.587-2.673), 0.559
≥2	36 (42.4)	49 (57.6)		
Gestation				
Term	57 (41.3)	81 (58.7)	7.741 (0.972-61.65), 0.053	5.550 (0.624-49.354), 0.124
Pre term	1 (8.3)	11 (91.7)		
Birth weight				
<2.5	4 (22.2)	14 (77.8)	2.423 (0.756-7.761), 0.136	2.915 (0.745-11.405), 0.124
≥2.5	54 (40.9)	78 (59.1)		
Mode of delivery				
Cesarean	52 (38.5)	83 (61.5)	1.064 (0.358-3.164), 0.911	1.161 (0.348-3.875), 1.161
Vaginal	6 (40.0)	9 (60)		
Mothers age (Years)				
<35	47 (37.3)	79 (62.7)	1.422 (0.590-3.430), 0.433	1.368 (0.503-3.719), 0.539
≥35	11 (45.8)	13 (54.2)		
Mothers' education				
0-9	19 (63.3)	11 (36.7)	0.279 (0.121-0.643), 0.003	0.300 (0.121-0.744), 0.009
>9	39 (32.5)	81 (67.5)		
Mothers' complication				
Yes	15 (51.7)	14 (48.3)	0.515 (0.227-1.166), 0.111	0.604 (0.245-1.490), 0.274
No	43 (35.5)	78 (64.5)		

DISCUSSION

In study, overall prevalence of exclusive breastfeeding in infants up to 6 months of age was 38.7%. This finding is in concordance with the findings of a study conducted by Mukhtar et al in a health block of Kashmir.⁶ In addition, similar findings have been reported in global data. However, this finding is lower compared to the national figure.⁷ Other studies reported prevalence of exclusive breastfeeding in infants to be between 22-40%.^{3,8}

Our study identified reasons for non-EBF. Inadequate or lack of production of milk was stated as a reason by 34.7% of mothers. This is consistent with a study conducted by Oommen et al.⁹ Furthermore, studies suggest that approximately 25-73% of mothers engage in cessation of breastfeeding due to perceived low milk production.^{10,11} Inadequate milk production is actually perceived so by most mothers. Some actually tend to delay initiation of breastfeeding which leads to introduction of unnecessary formula supplementation and

ultimately decrease in milk production based on demand. Mothers need to be educated at birth place by trained nurses that early and frequent suckling by babies leads to more production of milk.

About 9% of mothers were advised non-exclusive breastfeeding by a doctor. The reason was not fully understood by mothers and no proper documentation by the advising doctor was present. We recommend that the doctor advising non-exclusive breastfeeding for any reason should document it for better understanding of the factors associated with exclusive breastfeeding.

Other reasons for non-exclusive breastfeeding included baby refusing breastfeeding at birth, baby crying even after breastfeeding, maternal illness, working mothers, sore/inverted nipple and baby's ill health. These reasons are preventable to a large extent through proper support at place of birth, support from family and most importantly at workplace. Helping the mothers to learn proper breastfeeding techniques including latching and positioning the baby at breast, adequate nutritional intake to improve milk production and providing feasible and stress-free environment at workplace for breastfeeding their children are some crucial methods that can combat the reasons mentioned by our study participants for non-exclusive breastfeeding.

World health assembly has set global target of increasing exclusive breastfeeding for infants under 6 months of age to at least 50% by year 2025.¹² So, government should take all necessary steps to make it possible.

Variables that were significantly associated with EBF include residence and mother's education. Infants from rural area were more likely to be exclusively breastfed compared to those from urban area. Oommen et al also reported higher prevalence of EBF in rural than urban infants.⁹ Mothers of infants up to 9 years of formal education were more likely to exclusively breastfeed than those with more than 9 years of formal education. Similar findings were reported by studies conducted by Ogbo et al and Nishimura et al.^{13,14} However, these findings are contrary to a breastfeeding study based on a nationally representative sample.¹⁵ A study conducted by Tang et al also reported inverse association between higher maternal education and EBF.²⁶ In general, higher rates of breastfeeding are associated with lower income and less formal education.³ Highly educated mothers tend to have higher household incomes and thus able to afford infant formula. Another possible reason is that highly educated mothers working and thus cannot exclusively breastfeed their infants. Full term infants had higher odds of being exclusively breastfed compared to preterm infants. These findings consistent with study conducted by Tan.¹⁷

Limitations

We could have used prospective type in place of cross-sectional study and followed the new-borns for their

breastfeeding practices just from birth. In addition, initiation of breastfeeding practices has not been included because many mothers initiate EBF well at birth but then fail to continue breastfeeding for many reasons.

CONCLUSION

The rate of exclusive breastfeeding among females in our study was very low. All the reasons mentioned by the mothers themselves were almost avoidable. But it is also true that EBF is not an easy job. It needs psychological, emotional as well as practical support by actively helping the females. To ensure that the rate of EBF among the mothers is increased, all the stakeholders (spouse, family and government) as well as the people at work place must play their part to the best extent.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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