Research Article

Knowledge and practices regarding breastfeeding: A community-based cross-sectional study in a rural area of Northwest India

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ABSTRACT

Background: Breastfeeding (BF) practices remain the cornerstone to reduce infant and child morbidity and mortality. **Objective:** This study was conducted to assess the knowledge and practices regarding BF among mothers of under-five children in a rural area of Jammu. **Materials and Methods:** A descriptive cross-sectional study was conducted among the mothers of under-five children residing in the rural area to determine their knowledge and practices level related to BF. A pre-tested, semi-structured questionnaire was used as a tool to collect the information. **Results:** Out of a total of 204 subjects interviewed, 76% were in 20-30 years age group. Knowledge regarding the exclusive BF was complete in 66.66% of mothers. 87.74% of the subjects knew that colostrum should be given to the newborns. Only 32.34% of them had a knowledge of exact age at which supplementary food to be initiated. Regarding practices, 44.11% of mothers had given colostrum to their newborns, 36.27% had not given any pre-lacteal feeds, 47.05% initiated BF within 1 h of delivery, and 50% gave supplementary feed at 6 months. Exclusive BF was practiced by 16.66%, 18.13%, and 13.72% of mothers for 2, 4, and 6 months, respectively. **Conclusions:** Efforts need to be made to aware the women of benefits of BF, and there is a need for BF intervention programs selectively targeted at ante- and postnatal mothers so as to plug the gaps between knowledge and practices level.

KEY WORDS: Breastfeeding Practices; Exclusive Breastfeeding; Rural Area

INTRODUCTION

India is a vast country, so breastfeeding (BF) practices vary accordingly in different regions and communities across the nation. The importance of BF to infant health cannot be overemphasized. The United Nations Children's Fund (UNICEF) has estimated that exclusive BF in the first 6 months of life can reduce under-five mortality rates in developing countries by 13%.[1] BF is mutually beneficial to both mother as well as child and is considered best source of nutrition for an infant.[2] WHO recommends infant be exclusively breastfed for the first 6 months starting within 1st h of life, followed by BF along with complementary foods for up to 2 years of age or beyond.[3] Exclusive BF can be defined as a practice whereby the infant receives only breast milk and not even water, other liquids, tea, herbal preparation or food during the first 6 months of life with the exception of vitamins, mineral supplements or medicines.[4]

Any damage caused by nutritional deficiencies in first 2 years of life are detrimental to child's growth and development and could lead to impaired cognitive development, compromised educational achievement, and low economic productivity.[5-7] BF confers both short-term as well as long-term benefits both to the child and the mother including child protection against a variety of acute and chronic disorders.[8] WHO/UNICEF global strategy on infant and young child feeding practices aims to promote

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optimal BF and complementary feeding practices through baby friendly hospital initiative and international BF codes.[9] Although some studies have been conducted in this region of the country in the past, this study was primarily conducted to see the current trends in BF practices in this rural area of Jammu.

MATERIALS AND METHODS

This cross-sectional study was conducted in Miran Sahib zone of RS Pura Block which is attached to PostGraduate, Department of Community Medicine, Government, Medical College, Jammu, for academic purposes. A community-based survey was done, and all the mothers of under-five children, residing in that zone were enrolled for study purpose. The purpose of the study was explained to mothers, and only those who gave verbal informed consent were registered in the study. A pretest was done to validate the questionnaire in an adjacent village which was not a part of the sample. A semi-structured questionnaire prepared by research team was administered to the mothers. The questionnaire included sociodemographic details and information regarding BF knowledge and practices of participants. The data collection was done by female members of research team, keeping in mind the sensitive nature of some of questions. The research team ensured confidentiality of information and anonymity of subject.

Statistical Analysis

The data were entered into Microsoft Excel sheet and then analyzed and interpreted in percentages.

RESULTS

A total of 204 mothers of under-five children participated in this study.

Sociodemographic Profile

About 155/204 **(**76%) study subjects were in 20-30 years age group. Literacy levels were good enough with 47.5% respondents having high school education and an equal proportion with above high school literacy level. 81.86% of mothers belonged to Hindu religion and 52.45% lived in joint families. 57.84% respondents had a parity status of one (Table 1).

Knowledge of BF

Only 36.28% of study subjects had the knowledge that no pre-lacteal feeds should be given to newborns. An overwhelming 87.74% of them knew that colostrum should not be discarded and 51.96% knew that BF should be started within 1 h of birth. Almost two-third (66.66%) of respondents knew the meaning of exclusive BF (Table 2).

Table 1: Sociodemographic profile of study population (*n*=204)

Sociodemographic profile	N (%)
Age of mother (years)	
<20	25 (12.25)
20-25	80 (39.21)
26-30	75 (36.76)
>30	24 (11.76)
Literacy status of mother	
Illiterate	11 (11.0)
Up to high school	97 (47.50)
Above high school	96 (47.05)
Type of family	
Nuclear	97 (47.55)
Joint	107 (52.45)
Parity	
1	118 (57.84)
2	75 (36.76)
≥3	11 (5.39)

Practices of BF

Around 36.27% of mothers had not given any pre-lacteal feeds to their newborns. Only 47.05% initiated BF within 1 h of delivery while colostrum was given by 44.11% of subjects. Exclusive BF up to 6 months was practiced only in 13.72% study subjects, and only 50% initiated supplementary feeding at 6 months (Table 3).

DISCUSSION

This study was conducted to assess the knowledge and practices level of rural mothers of under-five children. As far as knowledge was concerned, 87.74% of the respondents in the current study knew the importance of colostrum and in fact 82.84% of the respondents had given it to their new ones. Gupta et al.[10] in their study in urban slums of Lucknow reported that only 49% of the respondents were of the opinion that colostrum might prevent baby from illness. The results of this study were also in agreement with those reported by Wanjohi et al.[11] who reported that majority of the respondents opined that colostrum is highly nutritious and confers immunity to the newborn.

Although no pre-lacteal feeds should be given to newborn ideally, the results of the current study found that 63.72% of mothers approved of pre-lacteal feeds. Regarding the source of knowledge about BF, half of the respondents (48.52%) reported that it was primarily from the elderly female members of the family. Our results are in agreement with those reported by Subbiah and Jeganathan[12] In contrast, Madhu et al.,[13] in their study, reported that most of the mothers received information regarding BF from the doctors.

Table 2: Distribution of subjects according to knowledge regarding different aspects of BF

Question	Response	N (%)
Should pre-lacteal feed to be given	Yes	130 (63.72)
	No	74 (36.28)
Meaning of exclusive BF	Only breast milk	136 (66.66)
	Breast milk+water	16 (7.84)
	Breast milk+animal milk	28 (13.72)
	Breast milk+bottle feeding	24 (11.76)
Should colostrum to be given to newborn	Yes	179 (87.74)
	No	25 (12.26)
Should water to be given along with BF	Yes	99 (48.52)
	No	105 (51.48)
Time of initiation of BF after birth (h)	<1	106 (51.96)
	6-12	70 (34.31)
	12-24	20 (9.8)
	>24	08 (3.92)
Age at which supplementary food to be initiated (months)	<6	89 (43.62)
	6	66 (32.35)
	>6	49 (24.01)
Whether BF is better than artificial feed	Yes	193 (94.6)
	No	11 (5.4)
Should BF be continued when mother is ill	Yes	163 (79.9)
	No	41 (20.1)
Should BF be continued if baby is ill	Yes	165 (80.88)
	No	39 (19.12)
Burping should be done after every feed	Yes	144 (70.58)
	No	36 (17.64)
	Don't know	24 (11.76)
Source of information related to BF	Family members	99 (48.52)
	Doctors	70 (34.31)
	Paramedical staff	11 (5.39)
	Others	24 (11.76)

BF: Breastfeeding

51.96% respondents in the current study had the knowledge that BF had to be initiated within 1 h of birth. These results were at variance with those reported by Gupta et al.[10] who reported that only one-third (30.2%) of mothers opined that BF is started within 1 h of birth.

Regarding weaning, only 32.35% of the participants in the current study knew that this should be started at 6 months

Table 3: Percentage distribution of respondents according to BF practices

Practices	Response	N (%)
Pre lacteal feeds	Not given	74 (36.27)
	Honey/sugar water	102 (50)
	Others	28 (13.72)
Colostrum given to baby	Yes	90 (44.11)
	No	114 (55.89)
Time since initiation of BF (h)	<1	96 (47.05)
	1-6	69 (33.82)
	6-24	16 (7.84)
	>24	23 (11.27)
Age at which weaning was done (months)	<6	60 (29.41)
	At 6	102 (50)
	>6	42 (20.58)
Duration of exclusive BF (months)	Not possible	105 (51.47)
	2	34 (16.66)
	4	37 (18.13)
	6	28 (13.72)
Frequency of feeding during day time (h)	Every 2	22 (10.78)
	Every 4	30 (14.7)
	On demand	52 (25.49)
	Whenever baby cries	100 (49.01)
Number of times baby was fed during night time	Once	35 (17.15)
	Twice	41 (20.09)
	Thrice	38 (18.62)
	Not at all	90 (44.11)
Duration of feeding on each breast (min)	5	103 (50.49)
	10	51 (25.00)
	15	29 (14.21)
	As long as baby wants	21 (10.29)
Reasons for discontinuing BF	Baby has diarrhea	32 (15.68)
	Mother has breast related problem	136 (66.66)
	Other ailments of mother	15 (7.35)
	Baby has other ailments	21 (10.29)
Food items avoided by mother during BF	GLV	48 (23.52)
	Curd	52 (25.49)
	Soyabean, rajma, etc.	70 (34.31)
	Hot and cold beverages	34 (16.66)
Nutritive items taken by mother during BF	More GLV and fruits	35 (17.1)
	Extra milk with ghee	76 (37.25)
	Roti with more ghee	78 (38.23)
	Energy dense foods (halwa, etc.)	15 (7.35)

GLV: Green leaf volatiles, BF: Breastfeeding

of age which reflects their poor knowledge. Further, a lower level of knowledge (20%) regarding the correct age of weaning was reported by Karnawat et al.[14] An overwhelming 94.6% mothers in the current study said that BF is better than bottle feeding. 70.58% of the mothers were aware of the fact that burping should be done after every feed. In contrast, a higher knowledge (91.8%) regarding the importance of burping after every feed was reported in a study conducted by Vijayalakshmi et al.[15]

With regard to practices of BF, half of study subjects in the current study had given pre-lacteal feeds in the form of honey or sugar water to their babies. Banapurmath et al.[16] reported that almost all mothers were giving pre-lacteal feeds to their babies while equally high prevalence of pre-lacteal feeds was reported by Somaiya et al.[17] In contrast, Paudel and Giri[18] reported that 86% of the mothers avoided giving any pre-lacteal feed to their newborns.

Nearly 47.05% of mothers in the present study had initiated BF within 1 h of birth while another 33.82% started within 1-6 h. The results of the current study are far better from a Nigerian study[19] where only 19.8% mothers commenced BF within 30 min following birth followed by another 12.3% within 1 h. A very low rate (0.3%) of initiating BF within 1 h was reported by Banapurmath et al.,[16] and similarly, low rates were reported by Benakappa et al.[20] and Gupta et al.[21] also. This delayed initiation is in fact invariably associated with administration of pre-lacteal feeds. A higher proportion of mothers (72% and 73.1%) initiated timely BF in studies conducted by Madhu et al.[13] and Bimerew,[22] respectively. Only 27.9% of mothers breastfed within ½ h while colostrum was fed by 87.1% mothers in a study conducted in Nepal by Paudel and Giri.[18] Although almost half of the respondents had initiated BF within 1 h of delivery, colostrums as first feed was given by only 44.11% of the mothers in the current study. In contrast, in a longitudinal survey in Central Nepal,[23] 90.9% mothers fed colostrum as the newborn's first feed.

Weaning was done at 6 months by 50% of the respondents while 29.41% mothers weaned before 6 months in the present study. In another study, 40% mothers weaned at 6 months, 53% weaned prematurely and 84% mothers followed on demand feeding practice in the study conducted in rural Karnataka.[12] Only 13.72% did exclusive BF for 6 months while 18.13% carried exclusive BF for 4 months in the present study. Our results are in agreement with Gupta et al.[21] and Kapil et al.[24] who reported 20% and 15% rates of exclusive BF at 4 months, respectively. A very healthy 55% and 40% rate of exclusive BF until 6 months was reported in studies conducted in Nepal[18] and Karnataka,[16] respectively. Authors in the present study found that half of the mothers breastfed for 5 min on each breast and 49.01% breastfed their babies on demand only. Results were in consonance with those found by Subbiah and Jeganathan[12] as mothers thought that longer duration causes soreness of nipple.

When reasons for discontinuation of BF were enquired, it was found that two-third of the mothers (6.6%) in the current study discontinued BF due to their breast related problems. Ram et al.[25] found that 61.9% mothers reported insufficient milk and 33.1% breast infection as the reasons for discontinuation of BF. Kumar et al.[26] and Madhu et al.[13] found insufficient milk as the commonest cause of stopping BF. Mull[27] reported the refusal to suck as the main reason for stopping BF.

During postnatal period, foods such as soyabean, rajmah, and curd were avoided whereas roti, milk, ghee, etc., were preferred during lactation by the respondents in the present study.

The the present study focused only on those mothers who have practiced BF within last 5 years, so as to minimize the chances of recall bias. However, the cross-sectional design of the study and smaller sample size are the main limitations of the study since these factors limit the generalization of our results.

CONCLUSIONS

The study results show poor adherence to WHO recommendations of exclusive BF. Therefore, it is recommended that interventions be targeted to pregnant and lactating women with the help of health-care providers so as to bridge the gap between current BF practices and those advocated by WHO. A host of factors has been implicated for the beliefs and practices of the mothers regarding BF including lack of women empowerment, besides anemia, fatigue, and inadequate diet. Further, it is essential to distinguish the beneficial beliefs and practices which can be encouraged while discouraging harmful practices. In some cases, health professionals lack of knowledge and skills on BF and unfavorable attitude toward this practice can negatively influence establishment and maintenance of BF.

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