Original Research Article

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Assessment of breastfeeding practices in lactating mothers: more road to cover

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ABSTRACT

Background: The mother's milk is the best gift nature has provided. It is complete nourishment for babies. The World Health Organization (WHO) recommends that infants be exclusively breastfed for the first six months, followed by breastfeeding along with complementary foods for up to two years of age or beyond. Absence of remarkable progress in indicators of breastfeeding suggest that certain gaps still exist which restrict achievement of national development goals. These gaps could have resulted from unawareness and lack of knowledge regarding appropriate IYCF practices. Appropriate intervention in terms of awareness programmes may help in achieving the national development goals.

Methods: A cross sectional hospital based study was conducted over a period of 3 months. Lactating mothers in post natal ward were questioned using self-administered breastfeeding knowledge questionnaire about their knowledge, attitude and practices of breastfeeding.

Results: Total of 100 lactating mothers were enrolled. Majority of the mothers were in the age group of 20-25 years (72%), 65% of mothers were from rural area. only 27% mothers practiced initiation of breastfeeding after birth. 62% of mothers initiated breastfeeding after 30 minutes of birth. 10% mothers gave prelacteal feeds, honey was the most commonly given prelacteal feed. 90% of the mothers fed their baby colostrum. 90% of mothers knew that breast milk is ideal feed for newborn.

Conclusions: The primary care givers need to implement strategies to educate mothers about breastfeeding in antenatal and post natal checkups to enhance good breastfeeding practice thereby reducing infant mortality and morbidity. A special strategy to reach out to poor socio economic status and illiterate mothers is need of the hour.

Keywords: Breastfeeding knowledge, Hospital practices, Initiation of breastfeeding, Socio-demography

INTRODUCTION

The best gift nature has provided is the mother's milk. It is complete nourishment for babies. Breastfeeding is recognized worldwide as beneficial for both the mother and child, as breast milk is considered the best source of nutrition for an infant. The World Health Organization (WHO) recommends that infants be exclusively breastfed for the first six months, followed by breastfeeding along with complementary foods for up to two years of age or

beyond.² Exclusive breastfeeding is defined as a practice whereby the infants receive only breast milk and not even water, other liquids, tea, herbal preparations, or food during the first six months of life, with the exception of vitamins, mineral supplements, or medicines.³ Breast feeding protects babies against various diseases like diarrhea, pneumonia, and allergies and boosts their immunological response.⁴ Study from Ghana found that 22% of deaths among newborns were prevented if all newborns started breastfeeding within 1 hour of birth,

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irrespective of whether they were exclusively breastfed later or not; further analysis by the researchers now suggested this figure could be 31% for developing countries.⁵ According to NFHS-4 data, initiation of breastfeeding within one hour of birth in India is only 41.6 per cent even after a tremendous increase in institutional births from 38.7 per cent (2005-06) to 78.9 per cent (2015-16). Exclusive breastfeeding rates amongst infants 0-6 months of age, from 46.3 per cent (2005-06) to 54.9 per cent (2015-16).6 Initiation of breastfeeding within 1 hour rates across India varied from 25.4% to 75.4%, exclusive breastfeeding (0-6 months) rates varies from 35.8% to 77.2%.7 Absence of remarkable progress in these indicators suggest that certain gaps still exist which restrict achievement of national development goals. These gaps could have resulted from unawareness and lack of knowledge regarding appropriate IYCF practices. Appropriate intervention in terms of awareness programmes may help in achieving the national development goals.

Hence we planned this study with the objective to assess the knowledge, attitude and practice of breastfeeding among lactating mothers in a tertiary referral centre in central Karnataka.

METHODS

It was a cross sectional descriptive study conducted at Women and Children's Hospital, Davanagere, for a period of 3 months, August 2015 - October 2015. Study population included 100 lactating mothers in post natal ward.

Inclusion criteria

Healthy breastfeeding mothers in the post natal ward.

Exclusion criteria

Mothers with medical/surgical illness, mothers whose babies are admitted in NICU.

Data collection

By using self-administered breastfeeding knowledge questionnaire.

Study procedure

The questionnaire was self-administered in local language. Mothers meeting inclusion criteria were given questionnaire to answer. Illiterate mothers were asked and responses were recorded. Demographic details like age, parity, educational status, working status, income, type of delivery, weight of baby and sex of baby were recorded. Mother's knowledge and practices of breast feeding were assessed. Assessment of onset and adequacy of breast feeding was assessed. General characteristics of the patients were presented in terms of percentage.

Numerical variables of breastfeeding practices, breast feeding knowledge were tabulated and assessed.

RESULTS

100 lactating mothers in post natal ward were interviewed. Table 1 shows the characteristics of participants in the study.

Table 1: Demographic variables of the participants.

Age	Characteristics		Number
Sex of baby 25-30 years 18 25-30 years 2 2 25-30 years 2 2 2 2 2 2 2 2 2	Age	<20 years	8
Solution Solution		20-25 years	72
Place of residence Urban 35 Rural 65 Nuclear 56 Extended 44 Religion Hindu 72 Muslim 28 Illiterate 29 Primary 32 Secondary 21 Higher secondary 10 Pre university 08 Graduate 01 House wife 94 Self employed 05 Blue collar 01 >6528 0 >3264-6527 6 Income 1959-3263 24 979-1958 50 <978		25-30 years	18
Family Rural S65 Extended 44 Religion Hindu F2 Muslim 28 Illiterate 29 Primary 32 Secondary 21 Higher secondary 10 Pre university 08 Graduate 01 House wife 94 Self employed 05 Blue collar 01 >6528 0 >3264-6527 6 Income 1959-3263 24 979-1958 50 <978 20 Primi 43 Multi 57 Type of delivery Normal vaginal delivery 90 LSCS 08 Assisted vaginal delivery 02 Male 51 Female 49 1000-1500 gm 06 1500-2500 gm 24		>30 years	2
Nuclear 56	Place of	Urban	35
Extended 44 Hindu 72 Muslim 28	residence	Rural	65
Religion	Family	Nuclear	56
Muslim 28		Extended	44
Hushim 28	Religion	Hindu	72
Primary 32 Secondary 21 Higher secondary 10 Pre university 08 Graduate 01 House wife 94 Self employed 05 Blue collar 01 >6528 0 >3264-6527 6 Income 1959-3263 24 979-1958 50 <978 20 Primi 43 Multi 57 Normal vaginal delivery 90 LSCS 08 Assisted vaginal delivery 90 LSCS 08 Assisted vaginal delivery 02 Male 51 Female 49 1000-1500 gm 06 1500-2500 gm 24		Muslim	
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Higher secondary 10 Pre university 08 Graduate 01 House wife 94 Self employed 05 Blue collar 01 >6528 0 >3264-6527 6 Income 1959-3263 24 979-1958 50 <978 20 Parity Primi 43 Multi 57 Type of delivery Normal vaginal delivery 90 LSCS 08 Assisted vaginal delivery 02 Male 51 Female 49 Birth Weight 1000-1500 gm 06 1500-2500 gm 24	Education	Secondary	21
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Blue collar 01 >6528			94
Sex of baby	Occupation	Self employed	05
Sex of baby Signature Si		Dide Collei	01
Income		>6528	
979-1958 50	Income	>3264-6527	6
-978 20 Primi 43 Multi 57 Type of delivery Normal vaginal delivery 90 LSCS 08 Assisted vaginal delivery 02 Male 51 Female 49 1000-1500 gm 06 1500-2500 gm 24		1959-3263	24
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Normal vaginal delivery 90	Parity	Primi	43
LSCS			57
LSCS	V A	Normal vaginal delivery	90
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Sex of baby Female 49 Birth 1000-1500 gm 06 1500-2500 gm 24		Assisted vaginal delivery	
Birth weight 1500-2500 gm 06 1500-2500 gm 24	Sex of baby		
Birth			
weight 1500-2500 gm 24	211 111	1000-1500 gm	
>2500 gm 70		1500-2500 gm	24
		>2500 gm	70

Majority of the mothers were in the age group of 20-25 years (72%), 65% of mothers were from rural area, 56% of mothers belonged to nuclear family, more than half of the mothers were school dropouts, majority of the mothers were home makers. Nearly 90% of the mothers belonged to lower and lower middle class family. Multi para mothers contributed to 57% of the study sample. Only 8% of the babies were delivered by LSCS. Male and female babies were equal in number. 30% babies were low birth weight.

Table 2: Breast feeding practices observation of the participants.

Observation		Number
	< 30 minutes	27
	30 minutes-2 hours	62
Initiation of	2-6 hours	08
breastfeeding	6-24 hours	00
	24-48 hours	01
	>48 hours	02
	On demand	33
T 0	Every 24 hours	36
Frequency of	Every 4 hours	31
breastfeeding	On insistence of elders	01
	Nothing	90
Pre lacetal	Honey	09
feeds	Milk other than breast	01
	milk	01
Feeding of	Yes	90
colostrum	No	10
Burping done	Yes	46
after feed	No	54
Position of	Sitting	40
feeding	Lying	60
Cleaning of	Yes	64
breasts	No	36
	don't clean	23
How often do you clean	Each time before feed	60
	After feed	03
you cican	Both	09
	Sometimes after feed	05
	Water	69
How do you	Soap and water	09
clean breast	Milk	16
	Others	06
Do you wipe	Yes	83
baby's mouth after feeding	No	17
	Yes	86
Is baby top fed	No	14
Baby generally	0-5 minutes	44
	5-10 minutes	48
feeds for	10-20 minutes	07
	>20 minutes	01
Any restriction	Yes	23
in diet while breastfeeding	No	77

On assessment of breastfeeding practices, only 27% mothers practiced initiation of breastfeeding after birth. 62% of mothers initiated breastfeeding after 30 minutes of birth. Only 1/3rd of mothers fed baby on demand, 10% mothers gave prelacteal feeds, honey was the most commonly given prelacteal feed. 90% of the mothers fed their baby colostrum, more than half of mothers didn't practice burping after feeding, lying was the most commonly fed position followed by sitting position.

Majority of the mothers cleaned their breast with water before feeding. Most of the mothers wiped baby's mouth after breastfeeding. 86% of the mothers gave top feed in addition to breast milk. Almost all babies were fed till 5-10 minutes, only 27% of mothers followed restricted diet during breastfeeding.

Table 3: Breast feeding knowledge observations in participants.

Observation		Number
	Breast milk	90
Ideal feed for	Formula feed	05
newborn	Cow's milk	04
	Buffalo's milk	01
	Immediately after birth	56
	30 minutes	27
XX711-1	2 hours	12
When should BF be started in newborn	Whenever breast becomes full	02
III Hewborn	2 -24 hours	02
	24-48 hours	01
	>48 hours	00
Importance of	Yes	46
colostrum	No	54
What should be	Feed to baby	88
done with	Throw away	06
colostrum	don't know	06
How frequently baby should be fed	Whenever baby cries	55
	2 nd hourly	30
	3 rd hourly	15
	Till baby sleeps	26
How long baby should be fed per feeding	<5 minutes	09
	5-10 minutes	56
	10-20 minutes	07
	>20 minutes	03
How long baby should be breastfed	2 months	08
	4 months	04
	6 months	48
	8 months	20
	>8 months	20
When breast feeding should be stopped	<6 months	10
	6-12 months	16
	12-23 months	48
	>24 months	26

On assessment of knowledge about breast milk and breastfeeding, 90% of mothers knew that breast milk is ideal feed for newborn, 56% of mothers knew immediate initiation of breastfeeding in newborn, less than half of mothers knew about importance of colostrum, 88% of mothers knew that colostrum should be fed to newborn, half of the mothers were aware of demand feeding, 56% of mothers thought baby should be fed for 5-10 minutes, only half of the mothers were aware of exclusive breastfeeding, 48% of mothers thought breastfeeding should be stopped by 12-23 months.

DISCUSSION

It was observed in the present study that 97% of mothers initiated breastfeeding within first day of birth. Only 27% of mothers initiated breastfeeding immediately within 30 minutes of birth, which is significantly low compared to NFHS-4 data where 41.6% babies were breastfed within 1 hour of birth.⁶ A delay in initiation will lead to a delay in the development of oxytocin reflex, which is very important for the contraction of the uterus and the breast milk reflex. 97% mothers initiated breastfeeding within first day of birth. Our finding is much higher than (37.1%) the national data.⁶ Studies show that the earlier breastfeeding begins the earlier and more effective the consolidation of the process, and therefore, a better impact on the after-birth period, which helps in the earlier initiation of the secretion of breast milk.⁸

10% mothers gave prelacteal feeds, honey was the most commonly given prelacteal feed. Similar findings were reported in previous studies. 9-12 Pre-lacteal feeds are given believing they act as laxatives or as a means of clearing the meconium. Unfortunately, the mothers are not aware that the pre-lacteal feeds could be a source of contamination. 13 Honey, which is used as prelacteal food in infants is not recommended to be given below the age of one year, because of the risk of infection by *Clostridium botulinum*.

90% of mothers fed colostrum to baby which is a good practice. Similar findings were reported in previous studies. ^{13,14} But only half of the mothers were aware of its importance or role. Colostrum is rich in vitamins, minerals, protein and immunoglobulins that protect the child from infections. ¹⁵ The most common reason stated by mothers for discarding colostrum was that they thought colostrum was not good for the child.

Only one third of mothers were aware of demand feeding. Nearly half of mothers were practiced burping after feeding, burping helps to prevent regurgitation of feeds.

Majority of the mothers practiced good hygienic practices, they cleaned their breasts while feeding. This prevents infection in mothers and helps them to sustain breastfeeding.

Quarter of mothers had restricted diet while breastfeeding, rest all mothers increased their diet while breastfeeding. Similar findings were reported in previous studies. The reason behind restriction of diet in mothers could be belief that food consumed by mother may harm the baby by developing symptoms like cold, cough and increased frequency of stools.

Only half of the mothers were aware of exclusive breastfeeding till 6 months, this can be attributed to the fact that the majority of the study population were mothers belonging to low socioeconomic class with a low level of literacy.

Exclusive breastfeeding for the first six months, which is highly recommended, is often a necessity in poor communities that cannot afford formula or cow's milk.

Creating an awareness of its advantages will further strengthen and support this common practice in rural communities and avoid the early introduction of complementary foods for sociocultural reasons. Thus, no opportunity should be missed by doctors and health workers to educate the rural women on the benefits of breastfeeding.

One potential limitation of this study could be the small localized population. Hence, the findings in this study cannot be generalized.

CONCLUSION

Despite the higher rates of early initiation of breastfeeding and exclusive breastfeeding, there was low awareness of the benefits of exclusive breastfeeding.

Creating an awareness of the advantages of exclusive breastfeeding will further strengthen and support this common practice in rural communities and avoid early introduction of complementary foods for sociocultural reasons.

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REFERENCES

- 1. Ku C, Chow SKY. Factors influencing the practice of exclusive breastfeeding among Hong Kong Chinese women: a questionnaire survey. J Clin Nurs. 2010;19(17-18):2434-45.
- 2. Hanif HM. Trends in breastfeeding and complementary feeding practices in Pakistan, 1990-2007. Int Breastfeed J. 2011;6:15.
- 3. Nkala TE, Msuya SE. Prevalence and predictors of exclusive breastfeeding among women in Kigoma region, Western Tanzania: a community based cross-sectional study. Int Breastfeed J. 2011;6:17.
- 4. Benefits for Infants. Advantages of Breastfeeding. Available at: www.breastfeeding.com/all_about/all_about_more.h tml. Accessed on 6 August 2020.
- Srivastava D. Breastfeeding: the First Hour Saves One Million Babies! World Breastfeeding Week 2007, August 2-4. Breastfeeding Promotion Network of India, Delhi, 2007.

- www.bpni.org/WBW/2007/UNICEF-India-Health.html. Accessed on 6 August 2020.
- Government of India. Ministry of Health and Family Welfare. National Family Health Survey-4, 2015-2016. Available from: http://rchiips.org/nfhs/nfhs-4Reports/India.pdf. Accessed on 4 August 2020.
- Breastfeeding and infants and young children feeding practices. Report card: India States and UTs, 2019. Available from: https://nhm.gov.in/New_Updates_2018/NHM_Com ponents/RMNCHA/CH/Schemes/Maa/Brestfeeding and IYCF Report Cards.pdf.
- 8. Iarukov A, Nin'o A, Iarukova N, Doicheva E, Kolev D. The early breast feeding of newborn infants. Akush Ginekol. 1992;31:13-5.
- 9. Mandal PK, Sardar JC, Chatterjee C, Lahiri SK, Ghosh PK. A study on breast feeding practices among infants in a rural area of west Bengal. Indian J Prev Soc Med. 2007;38:28-31.
- 10. Chaturvedi M, Nandan D, Gupta SC. Rapid assessment of infant feeding practices in Agra district. Indian J Community Med. 2007;32:227.
- Sharma D, Sharma S. Bottlenecks to breastfeeding in Rural Rajasthan. Indian J Community Med. 2005;30:155-6.
- Pathi S, Das BC. Breast feeding practices in a rural ICDS block of Khallikote, South Orissa. Indian J Community Med. 2005;30:154.

- 13. Deshpande JD, Giri PA, Phalke DB, Phalke VD, Kalakoti P, Syed MM. Socio-cultural practices in relation to breastfeeding, weaning and child rearing among Indian mothers and assessment of nutritional status of children under five in rural India. AMJ. 2010;3:618-24.
- Khan Z, Mehnaz S, Khalique N, Ansari MA, Siddiqui AR. Poor perinatal care practices in urban slums: Possible role of social mobilization networks. Indian J Community Med. 2009;34:102-7.
- 15. Davies MC, Arinolan G, Sanusin R, Osotimehin B. Immunoglobulin classes and nutritional factors in plasma and breast milk of lactating mothers in Nigeria. Iran J Immunol. 2006;3:181-6.
- 16. Agarwal M, Idris MZ, Mohan U. Quality of reproductive health care at primary care level. Indian J Community Med. 2001;26:119-26.
- 17. Panda S. Brief report of PVOH-II Project of OMRAH, Cuttack, Orissa. Indian J Community Health. 1997;3:82-6.

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