Research Article

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Study of breast feeding practices in rural field practice area of Kakatiya Medical College, Warangal, Telangana state, India

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ABSTRACT

Background: Infant mortality rate (IMR) is considered as one of the most sensitive indicators of health status of a community. Breast feeding in rural areas appears to be influenced by beliefs, social, cultural and educational factors. This study aimed to access awareness and practices towards exclusive breast feeding and awareness towards the nutritional status and assessment and positioning of baby as per IMNCI guidelines in rural area, Warangal.

Methods: A community based cross-sectional study conducted on mothers with children aged 0-2 years residing in rural field practising area, Kakatiya Medical College, Warangal. A total of 200 mothers with children aged 0-2 years were interviewed using a pre-tested questionnaire. Statistical analysis: percentages, proportions and chi-square test.

Results: A total of 200 mothers with children aged 0-2 years participated in the study; majority (46.2%) belonged to the age group of 21-23 years in which most of the mothers belong to Hindu religion (90%), of which 67% lived in nuclear family. In this study, the percentage of mothers with children 0-2 years belonging to upper class was predominant with 47.5%. Association was found between education and practice of not giving prelacteal feeds and also with initiation of breast feeding (IBF). Association was also found between knowledge and practice. There is a significant awareness between EBF and IBF. About 83.8% mothers feed their child with colostrum, of which 28% mothers said that they don't know the reason of practising colostrum. Around 70% babies have good suckling and 54.3% babies were born with prematurity.

Conclusions: Nearly 76% mothers were lack of awareness regarding health condition of both baby and mother on breast feeding practices. The literacy and age of women has significant association on breast feeding practices.

Keywords: Breast feeding practices, Colostrum, Prelacteal feeds, Socio-demographic profile

INTRODUCTION

Infant mortality rate (IMR) is considered as one of the most sensitive indicators of health status of a community.

Infant mortality figures in India are very high and the two important causes which contributes maximum to the IMR is inadequate breastfeeding and immunization. According to NFHS-3 data,75% of the children are not breastfed from birth and over 50% are not exclusively breastfed. Breast milk has nutritional, immunological, behavioural and economic benefits and helps to build

mother infant bonding.⁴ The major causes of death among under five children in India is prematurity, neonatal sepsis, diarrhoea and pneumonia and breast milk is protective against all these diseases.⁵

Breastfeeding benefits is not just restricted to child, it protects the mother who has breastfed from developing ovarian and premenopausal breast cancers. More than 15% of 24 lakhs child deaths could be avoided in India by optimal breastfeeding practices. Despite the knowledge of benefits of breastfeeding, its prevalence and duration among general population in many countries

are still lower than the international recommendations of six month of exclusive breastfeeding.⁶

The prevalence of exclusive breastfeeding from 2008-2012 of six months duration is 46.4% and the early initiation of breastfeeding in India is less than 41%, breast feeding at age 2 was 76.8% which are far from the desired level. Breast feeding in rural areas appears to be influenced by beliefs, social, cultural and educational factors. Hence this study was aimed to assess the awareness and practices towards exclusive breast feeding, the nutritional status and assessment, positioning of baby as per IMNCI guidelines in rural area of Warangal.

Objectives

- 1. To study the influence of socio-demographic factors on breast feeding practices.
- 2. To study the awareness of breast feeding practices as per IMNCI guidelines.

METHODS

A cross-sectional study was carried out among 200 mothers with children 0-2 years residing in rural field practising area of Kakatiya Medical College, Warangal, by a convenient sampling method over a period of 3 months from September 2015 to November 2015. Kakatiya Medical College (KMC) is located in Warangal, Telanagana state under the gamut of Kaloji Narayana Rao University of Health Sciences. It is one of the premiere teaching and training public institutions of Telangana state that provides specialist tertiary-care services to patients largely belonging to lower/middle socioeconomic strata of the society with rural and urban backgrounds.

pre-designed, pre-tested, self-administered questionnaire in English was devised to collect data. The demographic details like age, occupation, education, marital status, past history, hereditary factors, habits & lifestyle, health seeking behaviour of the respondents, practices and awareness of breast feeding and complication of child during delivery were recorded. Some questions were objective in nature with 'yes' or 'no' answers whereas a few questions were multiplechoice. The mothers with children 0-2 years studied on a voluntary basis included and mothers who refused to participate, mothers with children aged above 2 years (even though breast feeding) and mothers suffering from any disease or illness not included in the study. All study participants were given a briefing about the objective of study and were assured about complete confidentiality regarding collection and storage of personal data.

Statistical analysis

Data were entered into Microsoft Excel and analysed using the Statistical Package of Social Sciences (SPSS) version-22.0. Statistical significance was set at $P \le 0.05$.

RESULTS

As Table 1 shows that the mean age of mother is 22 years, and the number of mothers with children aged 0-2 years belonging to the age group of 21-23 years is 46.2%, amongst which most of them belong to Hindu religion (90%) and 67% lived in nuclear families. In this study, a predominant number of mothers with children 0-2 years belonged to upper class (47.5%).

Table 1: Socio-demographic profile of the study population.

Socio-demographic profile	Number	Percentage
Age of mother	1 (0.11.001	
<18 years	40	20%
18-20 yeras	3	1.2%
21-23 years	92	46.2%
24-26 years	43	21.4%
≥27 years	22	11.2%
Type of family		
Nuclear	134	67%
Joint	64	32%
Extended	2	1%
Caste		
OC	12	6%
BC	81	40.5%
SC	88	44.0%
ST	19	9.5%
Religion		
Hindu	180	90%
Muslim	14	7%
Christian	6	3%
Education		
Illiterate	38	19%
Primary	4	2%
Secondary	62	26%
Intermediate	45	22.5%
Graduate/Diploma	45	22.5%
Post graduate	6	3%
Occupation		
Skilled	12	6%
Unskilled	38	19%
Unemployed	150	75%
Socio-economic class		
Upper class	95	47.5%
Upper middle	53	26.5%
Lower middle	22	11%
Upper lower	6	3%
Lower	24	12%

It was seen from Table 2 that 17 (14.16%) illiterates and did not have prelacteal feeds as compared to of those with P.G degree and above. There seems to be proportional increase in mothers not giving prelacteal feeds with proportional increase in education. There is significant relation between education and practice of not giving

prelactate feeds. Table 3 shows that, 29.5% of women are aware that breast feeding should be given within 1 hour as compared to 38% of women 1-2 hours, 7% within 2-4 hours and 25.5% of women >4 hours. By having

knowledge does not mean that they should practice. This is very much clear evident in this table. Therefore there is a significant gap between knowledge and practice.

Table 2: Distribution of education according	g to	practice of	prelacteal	feeds	amongst study population.

Education of mother	Prelacteal feeds		Total	p-value
Yes Yes	Yes	No		
Illiterate	9 (11.25%)	17 (14.16%)	26 (13%)	
Primary	2 (2.5%)	4 (3.3%)	6 (3%)	
Secondary	19 (23.75%)	43 (35.8%)	62 (31%)	$X^2=16.637$
Intermediate	11 (13.75%))	35 (29.2%)	45 (22.5%)	df =5
Graduate/ Diploma	18 (22.5%)	15 (12.5%)	33 (16.5%)	p< 0.005
Post Graduate	21 (26.25%)	6 (5%)	27 (13.5%)	
Total	80 (40%)	120 (60%)	200 (100%)	

Table 3: Awareness on EIBF of participants according to IBF practices of child after birth.

Exclusive breast	Initiation of breast feeding (IBF)				n volvo	
feeding (EBF)	<1 hour	1-2 hours	2-4 hours	>4 hours	Total	p-value
<1 hr	44 (22%)	12 (6%)	2 (1%)	8 (4%)	66 (33%)	
1-2 hrs	6 (3%)	47 (23.5%)	4 (2%)	15 (7.5%)	72 (36%)	$X^2 = 117.55$
2-4 hrs	3 (1.5%)	4 (2%)	6 (3%)	2 (1%)	15 (7.5%)	df=9
>4 hrs	6 (3%)	13 (6.5%)	2 (1%)	26 (13%)	47 (23.5%)	P=0.000
Total	59 (29.5%)	76 (38%)	14 (7%)	51 (25.5%)	200 (100%)	

Table 4: Awareness about breast feeding amongst study population.

Awareness	Yes (%)	No (%)
Any health worker discus	69.50%	29%
about feeding practices		
Decreases diarrhoea & RTI	46%	54%
Decreases cancer	42%	58%
Spacing	33.50%	66.50%
Exclusive breast feeding	48.50%	51.50%
Expression & storage of	26.50%	73.50%
breast milk		

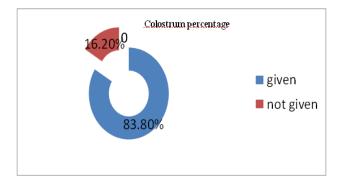


Figure 1: Distribution according to feeding of colostrum to their child.

As Table 4 shows that, 69.5% of mothers got awareness of breast feeding practices from any health worker, 46% aware that breast feeding decreases diarrhoea and RTI, and 66.5% of mothers not aware that breast feeding cause spacing, 73.5% of mothers not aware of expression and storage of breast milk.

As Figure 1 shows that 83.8% mothers have given colostrum to their children and 16.2% mothers discarded colostrum.

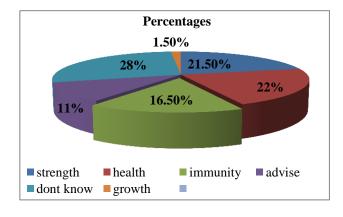


Figure 2: Distribution according to reasons for practising colostrum.

As Figure 2 shows that, 28% of mothers said that they don't know the reason of practising colostrum compared to 22% (health), 21.5% (strength), 16.5% (immunity), and 1.5% (growth).

Table 5: Distribution of assessment of breast feeding according to positioning of baby.

Position of the baby towards mother	Yes (%)	No (%)
Baby close to mother	71.50%	28.50%
Baby neck & body straight	57%	43%
Body turned towards mother	73.50%	26.50%
Mother supporting baby by both hands	47.50%	52.50%

According to Table 5 that positioning of baby, 71.5% baby close to the mother, 57% baby neck & body straight, 73.5% baby turned towards mother and 52.5% mother not supporting baby by both hands.

Table 6: Distribution of assessment of breast feeding according to attachment of baby.

Attachment of baby	Yes (%)	No (%)
Chin touching breast	77%	23%
Mouth wide open	66.5%	34.5%
Lower lip everted	52.5%	47.5%
More areola visible	47.5%	51.5%
Infant able to attach	51%	49%
Suckling	70%	30%

As depicted in Table 6 that the attachment of baby as 77% babies chin touching breast, 66.5% mouth wide open, 52.5% lower lip everted, 47.5% more areola visible and 51% of infant able to attach, and 70% of babies have good suckling.

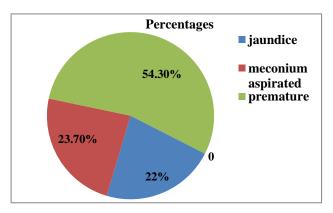


Figure 3: Distribution of participants with delivery complications.

As Figure 3 shows, that 54.3% children are delivered with prematurity, whereas 23.70% with meconium aspiration and 22% child with jaundice.

DISCUSSION

In the present study, out of 200 mothers, 52.5% had initiated breast feeding within one hour of delivery, the prevalence of exclusive breast feeding which shows that it is close to the district and national average survey sheet of Telangana fact sheet DLHS-4 is 60.3% in rural areas. According to NFHS-3 (India) the percentage of children who were ever breastfed is almost universal in every state, which matches well with present study which is 93.6% children were ever breastfed.³ However positive influences and support could help and negative influences could hinder the process of lactation. Similar findings were reported by Kumar et al. where 93.40% infants were given. 10 The predominant age group of study subjects is 21-23 years. About 81% of study population are literate. More than 95% of study subjects had hospital deliveries attended by doctor.

In which 45% of deliveries were normal, 22.3% of new born are less than 2.5 kgs birth weight, compared with the average survey of Telangana fact sheet DLHS-4 in which 8.1% new born are less than 2.5 kgs of which maximum of admissions in NICU are due to low birth weight. Regarding prelacteal feeds our figures are in corroboration with NFHS-3 which states that 60% newborn received prelacteal feed. In our study, the prevalence of prelacteal feeding was (40%) and there is significant association between education of mother with practice of prelacteal feeds suggesting that more the education less practice of prelacteal feeds.

Highly significant association of parity with attachment and suckling of baby is seen among second and multipara. In this study, there is significant relation between education of mother with early initiation of breast feeding <1 hour. About 52.5% of literates have initiated breast feed within 1 hour compared to illiterates. Practice of late initiation of breast feeding may be due to mother's illiteracy, low socioeconomic class, and majority of deliveries taking place at home. Other reasons could be wrong customs and beliefs, less milk secretion, mother too tired to feed; baby was sleeping. This reflects that the mothers were not motivated adequately for early initiation of breastfeeding.

In contrast to other studies, this study shows that delayed breast-feeding (>1 hour) is still practiced in the rural areas of Warangal. In our study, although the first hour feeding rates was less but almost half of the babies (52.5%) were breastfed with in the first 1 hr, which compares well with the findings of NFHS-3 (India), Takalkar et al and Kar et al.^{3,11,12} In contrast to present findings lower levels are observed in the study by Kumar S and Chatterjee et al. where breast feeding within 1 hour was only 6.3% and 14.54% within 24 hours respectively.^{10,13}

According to IMNCI guidelines positioning and attachment of baby with breast feeding is approximately

75%. Nearly 76% mothers were lack of awareness regarding health condition of both baby and mother on breast feeding practises. Among 50 mothers who discarded colostrum, the most common reason was they have no idea of the importance of colostrum 28.1%.

In present study, 83.8 % babies were fed colostrum which matches well with the findings of Takalkar et al, Parmar et al. and Deshpande et al. 11,15,16 Breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infants; it is also an integral part of the reproductive process with important implications for the health of mothers.

CONCLUSION

Thus it can be concluded from the results that breast feeding was popular in rural women though their knowledge about the same needs to be improved. Since their perceptions regarding the feeding practices directly influence the health of the infant and young child feeding, growth monitoring and promotion therefore false beliefs and myths attached to child's feeding deeply rooted in all strata of community need to be replaced by sound and scientific messages by health personnel. The various opportunities for maternal and child health contacts available at the community level and Health facility level must be utilized. This study emphasizes the fact that the appropriate feeding practices can be increased by increasing mother's literacy and by imparting health education to the mothers in the community.

Limitations

One of the limitations of the study was the use of a convenient sample. It limited the generality and ability of the study. In addition, it is important to remember that the results of this study are dependent upon the accuracy of the responses.

Recommendations

As per NRHM mean age for girls 21 years, the mean age at marriage in my study population was 17-21 years and it should be increased to 19-21 years. This is possible by increasing the awareness through Kishori Shakthi Yojana. As per NRHM antenatal care and other craft classes should be conducted for all antenatal mothers.

About 50% of mothers have given pre lacteal feeds which are harmful and this can be overcome by medical officer conducting the delivery and ensure about breast feeding. Information regarding complementary feeds should be reinforced. IMNCI guidelines on position and attachment are not practiced in the field up to mark.

Guidelines need to be pushed by ANM, ASHA, and medical officers. Socio-demographic variables seem to have variable impact on knowledge and awareness on practice of pre lacteal feeds, feeding colostrum, EIBF and IBF. Women empowerment in the form of knowledge generation schemes would provide a common platform for sharing information there by leading changes in behaviour related to breast feeding practices.

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