

Research Article

Study of breastfeeding practices among working women attending a tertiary care hospital, Mysore, Karnataka, India

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ABSTRACT

Background: Breast milk is considered to be the best milk for infants. It is well suited for the needs of infants. Breastfeeding plays a very important role in determining the growth and development of the infant. Factors in breast milk protect infants from a wide variety of illnesses. Children who have been breastfed have less risk of becoming overweight or obese, even as adults. Keeping in mind women's empowerment, increased women workforce in India, this study was conducted with the objective of assessing breast feeding practices among working women. An attempt is being made to describe the factors influencing breastfeeding practices among working women. The objective of this study was to assess the breastfeeding practices among working women. And to assess the factors influencing breastfeeding practices among working women.

Methods: The present study is a hospital based cross-sectional comparative study. Study participants were working mothers of the children aged between 13-24 months, attending the immunization centre of the paediatric medicine department in JSS Hospital, Mysuru, Karnataka, India for a period of one year from January 2014 to December 2014. The sampling technique used was convenient sampling. All the working mothers attending the immunization centre were interviewed, a total of 107 working mothers were interviewed in a period of one year. The main reason was found to be the employment status of the mothers.

Results: Majority of the study subjects (54.2%) were found to be below 25 years of age. 29% of the mothers had given pre-lacteal feeds to their children. 42.1% of the working women had initiated breastfeeding within one hour of birth. Majority of the women (97.2%) had fed the children with colostrum. 15.9% of the working women had exclusively breastfed their children for six months.

Conclusions: The breastfeeding initiation rate and exclusive breastfeeding rate among working women are much lower when compared to the NFHS-3 findings. The main reason for lowered rate was found to be the employment status of mothers.

Keywords: Working women, Pre-lacteal feeds, Breastfeeding initiation, Exclusive breastfeeding

INTRODUCTION

To achieve optimal health, development and survival of infants and young children, all infants should be exclusively breastfed for the first 6 months followed by introduction of appropriate complementary feeding along with continued breastfeeding for two years or beyond.

Infant and young child feeding (IYCF) include initiation of breastfeeding within one hour of birth, exclusive breastfeeding for the first six months of life, introduction of complementary feeding at six months and ensuring that children receive adequate complementary foods, both appropriate to their age in terms of quality and quantity

along with continued breastfeeding for two years or beyond.

Breast milk contains all the nutrients that an infant needs in the first 6 months of life, including fat, carbohydrates, proteins, vitamins, minerals and water. Breast milk also contains bioactive factors that augment the infant's immature immune system, providing protection against infection, and other factors that help digestion and absorption of nutrients. Colostrum is the special milk that is secreted in the first 2-3 days after delivery. Colostrum is rich in white cells and antibodies, especially sIgA, and it contains a larger percentage of protein, minerals and fat-soluble vitamins (A, E and K) than later milk.

Breastfeeding, especially six months of exclusive breastfeeding, has a significant effect in the reduction of mortality from the two biggest contributors to infant deaths: diarrhoea and pneumonia, as well as on all-causes of mortality.¹

Mothers play a very important role in child's health and shaping its future. Numerous studies have revealed that one of the barriers to breastfeeding is work status. With enlarged urbanization and industrialization, more and more women have joined the work force. An estimated 50% of women employed in the workplace are of reproductive age and return to work within one year of their infants' births Wyatt. Increased female literacy rate to 65.46% according to 2011 census and rapid urbanization has increased the workforce participation rate of females in rural sector to 26.1% and to 13.8% in the urban sector.^{2,3}

A woman's ability to breastfeed is markedly reduced when she returns to work if breastfeeding breaks are not available, if quality infant care near her workplace is inaccessible or unaffordable, and if no facilities are available for pumping or storing milk.⁴

Keeping in mind women's empowerment, increased women workforce in India, this study was conducted with the objective of assessing breast feeding practices among working women. An attempt is being made to describe the factors influencing breastfeeding practices among working women.

Objective of this study was to assess the breastfeeding practices among working women. And to assess the factors influencing breastfeeding practices among working women.

METHODS

Study area

The study was conducted at the JSS Hospital which is a tertiary care hospital located in M.G .Road, Mysuru, Karnataka, India. The study was conducted in the immunization centre of the department of paediatric

medicine, J.S.S. Medical College, Mysuru, Karnataka, India.

The present study is a hospital based cross-sectional comparative study conducted among working women of the children aged between 13-24 months attending the immunization center of the paediatric medicine department in JSS Hospital, Mysuru, Karnataka, India for a period of one year between January 2014 to December 2014.

Inclusion criteria

- All women attending the immunization center having children aged between one to two years.
- All working women engaged in income generating activity (occupation) for at least one year.

Exclusion criteria

- Mothers of children who were severely ill were excluded from the study.

Sampling; Convenient sampling technique used in this study.

Sample size; all the working mothers who attended the immunization clinic in a period of one year were interviewed. A total of 107 working mothers were interviewed in this period.

Method of data collection

A pretested structured questionnaire by interview method was used to assess the socio-demographic factors influencing infant feeding practices among working and non-working women.

The questionnaire included general information like mother's and father's name, age of the mother and the child, sex of the child, religion, education of the mother and the father, occupation of the mother and the father, place of residence, type of family, income of the family and total family members.

Socio-economic status (SES): It is classified according to modified Prasad's BG classification.³ Breast feeding practices included questions regarding initiation of breastfeed, colostrum feed, pre-lacteal feeds, duration of exclusive breastfeeding, schedule of feeding, position preferred while feeding.

Ethical clearance

Ethical clearance was obtained from the IEC (Institution ethics committee) for the study. Informed written consent was obtained from the study participants after explaining them about the purpose of conducting the study in their local language.

Data analysis

The data collected was entered in epi-data version 3.1. Data was analyzed using SPSS software version 22. Chi-square test was used to find the association between socio-demographic characteristics among working women.

RESULTS

Table 1: Distribution of the study subjects based on their socio-demographic characteristics.

Socio-demographic variables	Frequency (=n)	Percentage (%)
Mothers age (years)		
≤25	58	54.2
≥26	49	45.8
Mothers education		
Illiterate	02 (1.9)	1.9
Primary	10 (9.4)	9.4
Secondary	11 (10.3)	10.3
Pre-University	30 (28.0)	28.0
Graduation	51 (47.6)	47.6
Post-graduation	03 (2.8)	2.8
Location of residence		
Rural	17	15.9
Urban	90	84.1
Type of family		
Nuclear	64	59.8
Joint	14	13.1
Three Generation	29	27.1
Socio-economic status		
Class I	70	65.4
Class II	33	30.8
Class III	04	3.8
Class IV	00	0.0
Type of delivery		
Normal	63	58.8
Caesarean Section	44	41.1
History of ANC visit		
Yes	106	99.1
No	01	0.9

Table shows the factors influencing the IYCF practices among working women. It was found that among those who did not exclusively breastfeed their child majority of them had sedentary job at their work place, 63.3% of them belonged to nuclear families, 65.6% of them belonged to class I socio-economic status, 64.4% of them worked for ≥6 hours, 94.4% of them returned to their work within 6 months after delivery, 90% of them did not have facilities at the workplace to breastfeed their children and 87.8% of them stopped breastfeeding their children due to their working status. The association between stoppage of breastfeeding due to work and exclusive breastfeeding was found to be statistically significant with p-value < 0.001.

Table 2: Distribution of study subjects based on their breast feeding practices.

Breast feeding practices	Frequency (n)	Percentage (%)
Pre-lacteal feeding		
Yes	31	29
No	76	71
Type of pre-lacteal feeds given		
Sugar water	21	67.7
Honey	07	22.6
Gripe water	03	09.7
Colostrum		
Fed	104	97.2
Not fed	03	2.8
Breastfeeding initiation		
Within 1 hour	36	33.6
1-6	45	42.1
6-12	17	15.9
12-24	05	4.7
24-48	03	2.8
48-72	01	0.1
Exclusive breastfeeding		
Practiced	17	15.9
Not practiced	90	84.1

Table 3: Factors influencing exclusive breastfeeding among study subjects.

Factors influencing	Exclusive breast feeding		P value
	Practiced	Not practiced	
Nature of work			
Sedentary	14 (82.4)	69 (76.7)	0.758
Moderate	03 (17.6)	21 (23.3)	
Type of family			
Nuclear	07 (41.2)	57 (63.3)	0.08
Joint	05 (29.4)	09 (0.1)	
Three generation	05 (29.4)	24 (26.6)	
Socio-economic status			
Class 1	11 (64.7)	59 (65.6)	0.19
Class II	04 (23.5)	29 (32.2)	
Class III	02 (11.8)	02 (2.2)	
No of hours of work			
<6	06 (35.3)	32 (35.6)	0.98
>6	11 (64.7)	58 (64.4)	
Return to work after delivery			
<6 months	15 (88.2)	85 (94.4)	0.308
>6months	02 (11.8)	05 (5.6)	
Facilities at work place to breast feed			
Yes	01 (5.9)	79 (87.8)	1.000
No	16 (94.1)	11 (1.2)	
Stoppage of breast feeding due to work			
Yes	01 (5.9)	79 (87.8)	0.001*
No	16 (94.1)	11 (12.2)	

^ -χ² test. *P-value <0.05 significant. Figures in parenthesis indicate percentages.

DISCUSSION

In the present study majority of the study subjects were below 25 years age group i.e., 54.2%. Majority of them had studied up to graduation (47.6%) followed by pre-university (28%) and post-graduation (2.8%). Most of them belonged to class I socio-economic status (65.4%) followed by class II (30.8%) and class III (3.7%) according to modified Prasad's BG classification. that 59.8% of them were from nuclear families, 27.1% of them from three generation family and 13.1% of them from joint family.

According to NFHS-3 report (2005-2006), 57% of the new-born received pre-lacteal feeds⁵. In our study it was found that 29% of the mothers had given pre-lacteal feeds. The findings are lower when compared to NFHS-3 report; increased literacy rate among mothers could be one of the reasons for the findings. 67.7% of them had given sugar water, 27.3% of them gave honey and 9.1% of them gripe water. Family customs is one of the main reasons for giving pre-lacteal feeds in our study but they are the main reason for causing infections. In a study conducted at Davangere city by Shubha DB among working and non-working mothers, it was observed that 6% of working and 11% of non-working mothers gave pre-lacteal feeding.⁶ This is lower when compared to the present study. The findings in our study are similar to the studies conducted by Nitin Joseph et al and Kulkarni et al in Mumbai, where the pre-lacteal feeding rate was observed to be 33.5% and 31.6% respectively.^{7,8}

42.1% of them had breastfed their child from 1-6 hours followed by 33.6% of them who breastfed within one hour. In India according to NFHS-35, report early initiation rate is 40%. Early initiation rate among non-working group is higher than NFHS-3 report but lower among working group of women. The reasons for lower rate among working women could be higher rate of caesarean sections and baby in NICU.

In a study done in Singapore by Gary Ong, it was found that working status had no effect on initiation of breastfeeding, 95.2% of the working mothers' breastfed their children.⁹ Ryan and co-researchers demonstrated that breastfeeding rates in the immediate post delivery period among part-time and full time working women were closer at 68.8% and 65.5% respectively; but the same rates diverged to 36.6% and 26.1% at six months.¹⁰ The world health organization recommends exclusive breastfeeding up to the age of six months.¹¹ In the present study it was found that the percentage of women who practiced exclusive breastfeeding was only 15.9%. EBF rate is much lower when compared to the NFHS-3 findings. Working status of women has reduced the duration of exclusive breastfeeding.

Motee A et al in their study observed that only 17.9% of the mothers followed exclusive breastfeeding and the major barrier was found to be their employment status.¹²

Shubha DB in her study observed that 16% of the working and 62% of the non-working women had exclusively breastfed their children. These findings are close to the present study.⁶

Gryzwacz JG in his study among working mothers observed that only 13.6% of the mothers reported exclusive breastfeeding and employment influenced the feeding behavior of mothers.¹³

Employment status of the mothers influences the IYCF practices. This has been noted in our study by the low exclusive breastfeeding rate, stoppage of breastfeeding after returning to work. The main factors influencing the mothers include return to work before six months of postpartum, lack of facilities at the work place to feed the child. Raju TNK in his study has observed that lack of privacy and adequate time to express breast milk are the main barriers.¹⁴

CONCLUSION

The exclusive breastfeeding rate among the study subjects was very much lower. The major reason for early cessation of exclusive breastfeeding and starting complementary feeding before the age of six months was women returning to work before the child being six months of age. Lack of facilities at the work place to feed the child was another obstacle for optimal feeding practices. Type of delivery, mother's employment status, more than six hours of work were the factors found to influence the breast feeding practice among working women.

Recommendations are as following.

- Mothers should be educated about the harmful effects of pre-lacteal feeds and discourage them from feeding their infants with pre-lacteal feeds.
- The workplace poses serious impediments to continued breastfeeding by mothers who return to work postpartum. Measures should be taken to provide facilities at the work place for the mother to feed their babies confidently. Facilities at the workplace should provide privacy to the mother and the mother should be given adequate breaks during her work to feed the baby.
- Inadequate knowledge about expressed milk resulted the mothers in starting the complementary feeds too early. Mothers should be educated about the proper techniques of pumping the breast milk, its storage and ways of feeding it to the baby.
- Family members should be involved to support the mother in feeding the baby optimally.

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