Original Research

A cross-sectional study on exclusive breastfeeding practice among lactating females attending medical college, district Jhansi (U.P)

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Abstract

Background: Breast milk is an unequaled way of providing ideal food for the healthy growth and development of infants and has a unique biological and emotional influence on the health of both mother and child.

Objectives: The present study was conducted to study the exclusive breastfeeding practice among females and its association with socio-demographic variables.

Material and Methods: The study was conducted on mothers attending the immunization clinic, for the period of four months between September 2015 to December 2015. The study was conducted on 400 nursing mothers, who were selected randomly using the simple random technique. Data was analyzed in SPSS 16 trial version. Chi-square test was used for comparison and statistical significance was taken at *P* value <0.05.

Results: In our study, the majority of the mothers were in the age group of 20-24 years (37.5%) and 93% of them were Hindus. Of the total 62% of the study participants were residing in the rural area. Among 400 study participants, 240(60%) have adhered to exclusive breastfeeding practices. Exclusive breastfeeding practice is more prevalent in females belonging to age group of 25-29 years, which is statistically significant.

Conclusion: Exclusive breastfeeding practice is more prevalent in Hindus, general caste and females residing in the urban area. The reason given by the mother for not exclusively breastfeeding was the inadequacy of milk production. The information regarding the advantages and duration of breastfeeding needs to be provided for the community as a whole.

KEY WORDS: Breast milk, Exclusive breastfeeding, Immunization clinic, Adhered

Introduction

Breast milk is an unequaled way of providing ideal food for the healthy growth and development of infants. Breastfeeding has a unique biological and emotional influence on the health of both mother and child. Breast milk is the natural first food for babies, it provides all the energy and nutrients that the infant needs for the first months of life and, it is also important for sensory and cognitive development. Breast milk protects the infant against infectious and chronic diseases. Exclusive breastfeeding for 6 months is the optimal way of feeding infants.[1]

Breast milk reduces the risk of a number of acute and chronic diseases especially the diarrheal diseases and respiratory tract infections in early childhood as well as has long-term benefits for cardiovascular health and hence reduces childhood mortality.[2] The Government of India has always been promoting at the National and International level, the importance of exclusive breastfeeding for the first six months of an infant and the introduction of complementary foods thereafter with continued breastfeeding up to two years which is consistent with the Indian tradition.[3]

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The beneficial effects of breastfeeding depend on breastfeeding initiation, its duration, and the age at which the breastfed child is weaned.[4] Breastfeeding practices vary among different regions and communities. The rationale for conducting this study is to observe breastfeeding practices vary among the different regions and communities in India. Frequent monitoring of changing trends in exclusive breastfeeding practices necessary, therefore. The present study was conducted to study the exclusive breastfeeding practices among females and its association with socio-demographic variables.

Materials and Methods

This was a cross-sectional study. The study was conducted by the department of community medicine, Medical College, Jhansi, a tertiary care hospital. The study was conducted on mother's attending the immunization clinic, during the period of four months from September 2015 to December 2015.

The study was conducted to find out the practice of exclusive breastfeeding among nursing mothers depending upon their age group, education strata, rural or urban background, occupation, socio-economic status. In this study, only those mothers who have children between 6 months to 2 years of age were included. The study was conducted on 400 nursing mothers. The mothers were selected randomly using the simple random technique. The information about participants demography and practices towards breastfeeding were collected from the mothers on a predesigned and pretested semi-structured questionnaire. Consent was taken from the mothers prior to the study.

After getting through literature, according to NFHS-3, prevalence of exclusive breastfeeding as 46.3. [5] The sample size was calculated using the formula:

$$n = 4pq/L^2$$ [6],

where, n= sample size; p= proportion in the population processing the characteristic of interest; L=absolute error; q = (1-p)

Considering 95% confidence interval, prevalence and taking "L", absolute error in the estimate of "p" as 5%, the sample size was calculated to be 400. A total of 400 mothers were selected for the study.

Statistical Analysis: The collected data was entered into M.S Excel and analyzed in SPSS 16 trial version. Chi-square test was used for comparison and statistical significance was taken at *P* value <0.05.

Results

In our study, the majority of the mothers are in the age group of 20-24 years (37.5%) and 25-29 years (25%). Most of the study participant are Hindu (93%) in religion, belonging to general caste (45%), followed by OBC (32.5%). Of the total 62% of the study participants were residing in the rural area. The majority of our study participants have completed their schooling till middle and high school 23.75% & 23% respectively. Of which, 86% of our study participants were housewives. Most of our study participants belong to IV and III socio-economic status 41% & 22% respectively. In our study 300(75%) of mothers initiated breastfeeding within 1 hour of delivery. Colostrum feeding was given after birth by 320(80%) of mothers.

Table 1: Socio-demographic characteristics of study participants

Demographic factor	Number	Percentage
Age distribution(age in years)		
≤ 19	40	10.0
20-24	150	37.5
25-29	100	25.0
30-34	80	20.0
≥35	30	7.5
Religion		
Hindu	372	93.0
Muslim	28	7.0
Caste		
General	180	45.0
OBC	130	32.5
SC/ST	90	22.5
Residence		
Rural	248	62.0
Urban	152	38.0
Type of family		
Joint	228	57.0
Nuclear	172	43.0
Literacy status		
Illiterate	70	17.5
Primary	55	13.75
Middle	95	23.75
High school	92	23.0
Intermediate	58	14.50
Graduate & above	30	7.50
Working status of women		
Housewife	344	86.0
Working	56	14.0
Socio-economic status		
I	16	4.0
II	60	15.0
III	88	22.0
IV	164	41.0
V	72	18.0

(Table 2) shows the feeding practices, among 400 study participants, 240(60%) have adhered to exclusive breastfeeding practices; 19% of the participants gave mixed feed to their infants; 11% fed cow's milk 11% and 10% fed powder milk.

(Table 3) shows the association of exclusive breastfeeding practices with socio-demographic determinants. An exclusive breastfeeding practice is more prevalent in females belonging to age group of 25-29 years followed by 20-24 years, which is statistically significant with *p*-value 0.00. Exclusive

breastfeeding practice is more prevalent in Hindus. However, it is not significantly associated with *p*-value 0.13. Mothers of General caste have prevalent exclusive breastfeeding practice, followed by OBC with *p*-value 0.00. Exclusive breastfeeding is more prevalent in the urban area and it is significantly associated with p-value 0.00. Exclusive breastfeeding is more prevalent in females living in a joint family and being a housewife, it significantly associates with *p*-value 0.00. Exclusive breastfeeding is significantly associated with increasing literacy status with *p*-value 0.02. Exclusive breastfeeding practice is not significantly associated with socioeconomic status with *p*-value 0.13.

Table 2: Feeding practices of study participants

Type of feeding	Number	Percentage
Exclusive breastfeeding	240	60.0
Cow's milk	28	11.0
Powder milk	32	10.0
Mixed feed	60	19.0

Discussion

Breast milk should be initiated within 30 minutes of delivery.[7] The delay in initiation will lead to a delay in the

Table 3: Association between exclusive breastfeeding and socio-demographic characteristics

Demographic factor	Exclusive breastfeeding present	Exclusive breastfeeding absent	Chi-square	P-value	df
Age distribution(age in years)					
≤ 19	22	18			
20-24	102	48			
25-29	74	26	34.81	0.00	4
30-34	32	48			
≥35	10	20			
Religion					
Hindu	227	145	2.31	0.13	1
Muslim	13	15			
Caste					
General	130	50			
OBC	70	60	22.33	0.00	2
SC/ST	40	50			
Residence					
Rural	134	114	9.68	0.00	1
Urban	106	46			
Type of family					
Joint	154	74	12.57	0.00	1
Nuclear	86	86			
Literacy status					
Illiterate	32	38			
Primary	28	27			
Middle	57	38	13.86	0.02	5
High school	60	32			
Intermediate	42	16			
Graduate & above	21	9			
Working status of women					
Housewife	221	123	18.44	0.00	1
Working	19	37			
Socio-economic status					
I	9	7			
II	39	21			
III	62	26	7.11	0.13	4
IV	90	74			
V	40	32			

**P* value <0.05 i.e. statistical significant;
df= degree of freedom

development of oxytocin reflexes, which are very important for the contraction of the uterus and the breast milk reflex. In our study, most of the mothers initiated breastfeeding within 1 hour of childbirth, which is a good practice. Only 60% of the mothers were doing exclusive breastfeeding, the remaining 40% of the mothers were not. The main reason given by the mother to start weaning early was insufficient milk, which may be due to the early age of marriage (those who were younger than 19 years) and early childbirth. In our study, only 55% of females with age ≤19 years were exclusively breastfeeding.

A similar study showed initiation of breastfeeding within an hour by 72 % of mothers.[8] Studies comparing the early onset of breastfeeding, on the development of newborns and on their mothers, the studies in which breastfeeding had begun on the 6th hour after birth show that the earlier the breastfeeding begins, earlier and more effective is the consolidation of the process and therefore a better impact on the after-birth period, which in turn helps in the earlier initiation of the secretion of breast milk.[9] Exclusive breastfeeding should be continued for 6 months.[10] It protects the child from malnutrition, infections, and helps the overall development of the child.[11, 12] Similar results were shown in a study where 64% mothers did exclusive breastfeeding.[8] In another study, only 40% of the mothers were doing exclusive breastfeeding, the remaining 60% of the mothers were not.[13] In another study, only 38% of the mothers did the exclusive breastfeeding until 6 months and started weaning after 6 months. A total of 57% of the mothers in our study prematurely started weaning.[14] In a study, they prematurely start weaning the child, which may lead to the development of infections and may have a long-term effect on the physical growth of the child.[15] Similarly, studies indicated that adolescent's breastfed less often than adults, and they hold positive and negative attitudes toward breastfeeding that influence decision-making and breastfeeding. [16]

The mothers who did not come to the immunization clinic, and went to privative clinics were not included in this study. The results in mothers or who did not come for vaccinations might be different. These factors may limit the generalizability of the study findings. We did not seek the views of partners and family directly. We took a sample, which was calculated statistically.

In our study 240(60%) of the females were exclusively breastfeeding. Exclusive breastfeeding practice was more prevalent in females of Hindu religion, belonging to General caste, those residing in the urban area and those living in joint family. Exclusive breastfeeding was more common in housewives, those with higher education status and in females belonging to middle socio-economic status. The main reason given by the mothers for not exclusively breastfeeding was the inadequacy of milk production and that the working women were unable to exclusively breastfeed. Following our study we recommend that the information regarding the advantages and duration of breastfeeding needs to be provided for the community as a whole. Undesirable cultural practices such as giving pre-lacteal feeds, early/late initiation of breastfeeding after birth, discarding the colostrum, delay in the introduction of weaning foods and avoiding exclusive breastfeeding are still prevalent among the mothers. Practices such as discarding the colostrum and early/ late weaning should be discouraged.

Conclusion

Exclusive breastfeeding practice is more prevalent in Hindus, general caste, and females residing in the urban area. The reason given by mothers for not exclusively breastfeeding was the inadequacy of milk production. The information regarding the advantages and duration of breastfeeding needs to be provided for the community as a whole.

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