

Breastfeeding Practices among Medical and Paramedical Personnel in a Tertiary Care Hospital in Delhi

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ABSTRACT

A study was conducted to assess the breast feeding practices among medical and paramedical personnel in a tertiary care centre in Delhi. It was a cross-sectional study and was done during the 12 months period from January 2015 to December 2015 in ESI-PGIMSR, ESI-Hospital, Basaidarapur, New Delhi. Total of 80 mothers (doctors=15%, paramedical=85%) were included for study who have had one live birth. A pretested structured questionnaire was circulated, responses recorded and descriptive analysis was done. Study showed that 48.75% of mothers initiated breast feeding within 6 hrs, 85% within 12 hrs and 93.75% of mothers could initiate by the end of 24 hours. Multipara mothers initiated breast feeding earlier as compared to primipara ($p < 0.05$). Similarly, mothers who underwent vaginal delivery initiated breastfeed earlier as compared to LSCS mothers ($p < 0.05$). Significant numbers of mothers (42.5%) used prelacteal feeds; however 93.75% used colostrums for their babies. Most of the mothers (71.25%) started weaning between 6-12 months of age. Duration of exclusive breast feeding was 6 months in 58.75% of mothers. Majority of mothers (68.75%) continued breast feeding beyond 12 months but only 20% were able to continue breast feeding up to or beyond 24 months. Our Study showed that although good numbers (82.5%) of mothers could start breastfeeding within 12 hrs of birth still breastfeeding practices do not seem to be appropriate as being highly selective population. This indicates further reinforcement of correct breastfeeding practices through various measures and especially during antenatal visits.

Key Words: Breast feeding, medical and Paramedical, Prelacteal feed, complementary feed.

INTRODUCTION

World Health Organization (WHO) recommends that infant up to 6 months of age should be exclusively breastfed. ⁽¹⁾ There are numbers of benefits of breastfeeding, which include reduction in incidence of various infectious diseases like diarrhea, respiratory tract infections, otitis media etc and also there in reduction of incidence of type 1 and 2 diabetes

mellitus, obesity and asthma etc in later part of life. ⁽²⁾

Premature as well as delayed introduction of complimentary feeding practices are common and this leads to increase in incidence of under nutrition between 6-24 months of age. ⁽³⁾ The educational status of mother has been positively associated with increased rates of exclusive breastfeeding. The correct

pattern of breastfeeding assumes more significance if the educated mothers happens to be of medical or paramedical profession.

There are various studies on breastfeeding practices in general population but there is paucity of same among health care professionals, hence this study was conducted. The objective of this study was to assess breastfeeding practices in medical and paramedical personnel working in a tertiary care hospital.

MATERIALS AND METHODS

The study was conducted for a period of 12 months from January 2015 to December 2015 in ESI-PGIMSR, ESI-Hospital, Basaidarapur, a tertiary care centre in New Delhi. Total of 80 mothers (15% doctors and 85% paramedicals) were included for study that have had at least one live birth. Paramedicals included nurses, audiometrist, optometrist and nursing orderly etc working in the hospital during the study period. Ethical committee clearance was taken. All the mothers were informed of the nature of study work and informed consent was taken from each of them. A pretested structured questionnaire was circulated and responses were recorded and descriptive analysis was done. Information was collected about the initiation of breast feeding, use of prelacteal feeds, choice of prelacteal feeds, duration of exclusive breast feeding, total duration of breast feeding and complimentary feeding practices etc.

Statistical Analysis

A descriptive analysis was done. Chi square (χ^2), percentage were calculated and p-value was determined from probability tables for statistical significance.

RESULTS

Total 80 mothers were included in the study. All of them had initiated breast feeding. Of total, 47.5% mothers had

delivered through caesarean section while remaining 52.5% delivered vaginally. 36.25% of mothers were primipara while 63.75% of mothers were multipara. Initiation of breast feeding is given in table 1 and 2.

TABLE 1: Showing Initiation of Breastfeeding in LSCS and VD Mothers

Initiation of breast feeding	LSCS MOTHERS		VD MOTHERS		Total
< 6 hrs	14	36.84%	25	60.97%	39(48.75%)
6- <12 hrs	17	44.73%	12	29.26%	29(36.25%)
12-<24 hrs	4	10.52%	3	7.31%	7(8.75%)
>24 hrs	3	7.89%	2	4.87%	5(6.25%)
TOTAL	38	47.5%	42	52.5%	80

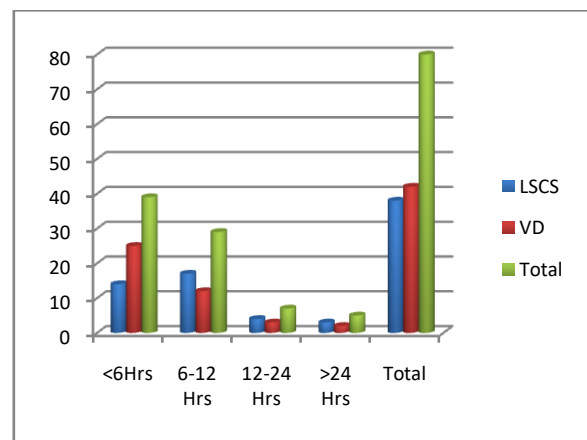


FIGURE 1: Bar Diagram Showing Initiation of Breastfeeding in LSCS and VD Mothers

TABLE 2: Showing Initiation of Breast Feeding In Primipara Vs Multipara Mothers

Initiation of breast feeding	Primipara	Multipara
<6 HRS	7 (24.13%)	30 (58.82%)
6- <12 HRS	14(48.27%)	16(31.37%)
12-24 HRS	4 (13.79%)	3(5.88 %)
>24 HRS	4(13.79%)	2(3.92%)
TOTAL	29(36.25%)	51(63.75%)

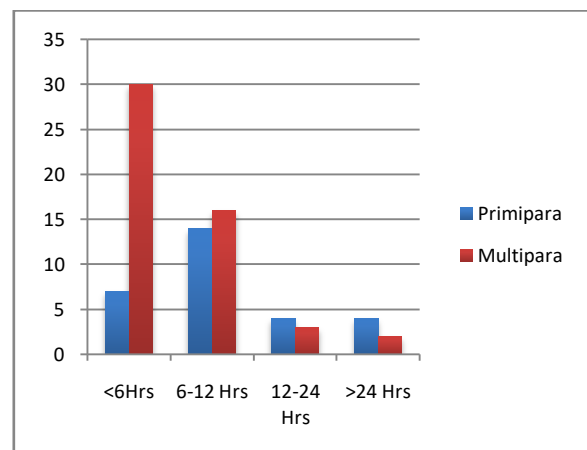


FIGURE 2: Bar Diagram Showing Initiation of Breast Feeding In Primipara Vs Multipara Mothers

Of total LSCS mothers only 36.8% mothers initiated breast feeding within 6 hrs while approx 61% vaginal delivery mothers initiated breast feeding within 6 hrs. This was statistically significant p value<0.05. By the end of 24 hours 92.5% of LSCS mothers and 95.23% of mother

had initiated breast feeding. Thus by the end of 24 hrs, there was no significant difference between the two groups. OF total 80 mothers, 85% could initiate breast feeding within 12 hrs and 93.75% of mothers initiated by the end of day 1 of life (i.e. within 24 hrs).

TABLE 3: Showing Statistical Significance of Initiating Breastfeeding (Within 6 Hours) Between Different Groups (LSCS Vs VD Mothers)

Groups	Breastfeeding initiated within 6hrs	Breastfeeding initiated later than 6 hrs	Total	Chi square (χ^2)=4.108 p value=0.04268 (p<0.05)
LSCS MOTHERS	14	24	38	
VD MOTHERS	25	17	42	
TOTAL	39	41	80	

TABLE 4: Showing Statistical Significance of Initiating Breastfeeding (Within 6 Hours) Between Different Groups (Primipara Vs Multipara)

Groups	Breastfeeding initiated within 6hrs	Breastfeeding initiated later than 6 hrs	Total	Chi square (χ^2)=8.9472 p value=0.00278 (p<0.005)
PRIMIPARA	7	22	29	
MULTIPARA	30	21	51	
TOTAL	37	43	80	

Of primipara mothers only 24.13% of mother could initiate breast feeding within 6 hrs however this percentage rose to 72.4% by the end of 12 hrs. Of multipara mothers 58.82% initiated breast feeding within 24 hours which was statistically significant when compared to primipara group (p<0.05). By the end of

12 hrs 90.2% of multipara mothers had already started breast feeding.

Our study showed that significant numbers (42.5%) of mothers used prelacteal feeds which are contrary to expected. Initiation of prelacteal feeds in various groups has been shown in table 5 and 6.

TABLE 5: Showing Use of Prelacteal Feeds Between LSCS Vs VD Mothers

Groups	Prelacteal feed given	Prelacteal feed not given	Total	Chi square (χ^2)= 0.0677 P value=0.7947 (p>0.05)
LSCS MOTHERS	16 (41%)	23 (58.97 %)	39	
VD MOTHERS	18 (43.9%)	23 (56.09%)	41	
TOTAL	34	46	80	

TABLE 6: Showing Use of Prelacteal Feeds between Primipara Vs Multipara

	Prelacteal feed given	Prelacteal feed not given	Total	Chi square (χ^2)= 0.0767 P value=0.7818 (p>0.05)
PRIMIPARA	13 (40.62%)	19 (59.38%)	32	
MULTIPARA	21(43.75%)	27(56.25%)	48	
TOTAL	34	46	80	

Most common prelacteal feeds were honey (35.3%), cow milk/formula milk (32.4%), glucose-water 20.59%) and plain water 11.7%. It is shown in table 7.

TABLE 7: Showing Choice of Prelacteal Feeds

CHOICE OF PRELACTEAL FEEDS	N (%)
HONEY	12 (35.3%)
COW MILK/FORMULA MILK	11 (32.4%)
GLUCOSE-WATER	7 (20.59%)
WATER	4 (11.7%)

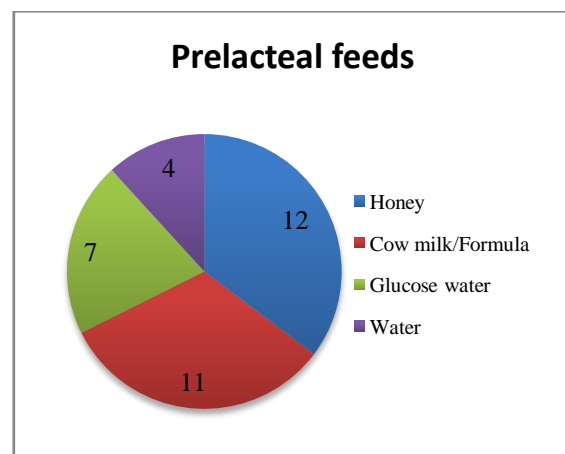


FIGURE 3: Pie Chart Showing Choice of Prelacteal Feeds

TABLE 8: Showing Duration of Exclusive Breast Feeding

Duration of EBF	Doctors	Paramedics	Total
< 4 MONTHS	3 (25%)	9 (13.23%)	12(15%)
4-<6 MONTHS	3 (25%)	14 (20.58%)	17(21.25%)
6-<12 MONTHS	6 (50%)	41(60.29%)	47 (58.75%)
12-24 MONTHS		4(5.88%)	4 (5%)
>24 MONTHS			

Duration of exclusive breast feeding was 6 months in 58.75% of mothers, however, 13.75% of mothers stopped exclusive

breast feeding in <6 months and most important reason cited for this was resumption of work/duties. Majority of mothers (68.75%) continued breast feeding beyond 12 months and only 20% were able to continue breast feeding up to or beyond 24 months.

TABLE 9: Duration of Continued Breast Feeding Given

Total duration of breast feeding	Doctors	Paramedics	Total
< 6 MONTHS	2 (16.66%)	1 (1.4%)	3 (3.75%)
6-<12 MONTHS	3(25%)	19 (27.94%)	22 (27.5%)
12-<24 MONTHS	7 (58.33%)	32 (47.05%)	39(48.75%)
> 24 MONTHS		16 (23.52%)	16(20%)
TOTAL	12(15%)	68(85%)	80

Complimentary Feeding Practices: 25% of mothers initiated complimentary feeding between 4 to 6 months, while most of the mothers (70%) initiated complimentary feeding between 6 to 12 months. Weaning was most commonly started at 6 months of age.

TABLE 10: Showing Complimentary Feeding Practices

Age of complimentary feeding	Doctors	Paramedics	Total
<4 months	Nil	Nil	Nil
4-<6 months	2 (16.67%)	18(26.47%)	20 (25%)
6-<12 months	10(83.33%)	46(57.5%)	56(70 %)
>12 months		4 (5.88%)	4 (5%)
TOATL	12	68	80

DISCUSSION

Our study showed that 48.75% of mothers initiated breast feeding within 6 hrs, 85% within 12 hrs and 93.75% of mothers initiated by the end of day 1 of life (i.e. within 24 hrs). Kumar et al (2006) studied socio-economic correlates of breastfeeding in Chandigarh and reported that 58.9% of the respondent initiated breastfeeding within six hours of births as compared to 48.75% in our study. (4) In a study conducted by Srivastava et al (1994) only 0.5% of mother started breastfeeding within 6 hours which is much lower rate as compared to our study (48.75%). (5) Our study showed similar result to study of Renitha R et al (6) in which 90.1% of mothers initiated breastfeeding within 24 hour while it was 93.75% in our study. Only 7.5% initiated first breast feeding after 24 hrs, while in a study by Pandit N et al (7) 32% initiated breast feeding after 24 hrs. Karnawat et al 1987 (8) showed that 66% of doctors favored initiation of breastfeeding on day 1 and 66% of

paramedical staff on day2 and 96% class four employees on day 3 while in our study all of the mothers initiated breastfeeding on day 1 of life, similar results in a study by Divya Karnawat et al. (9) Our study showed similar results to Srivastava et al study, in which multipara mothers succeeded in starting breast feeding earlier than primipara mothers. (5) However our study showed relatively higher use of prelacteal feeds among healthcare worker (42.5%) as compared to other studies, (10,11) similar results were found by Jeetender Singh et al (47%), (12) however it was significantly lower as compared to studies of other researchers like Khan MH et al(80%), (13) SP Srivastava et al, (5) Yadavannavar MC et al (92.25%), (14) Devang Rawal et al (61.9%). (15) Duration of exclusive breast feeding for 6 months was found to be among 58.75% of mother which is very similar to study of Renitha R et al (6) and higher than national data (46.3%). (16) All (100%) mothers initiated breast feeding, Majority

of mothers (96.25%) were breast feeding their babies beyond 6 months and 68.75% of mothers continued breast feeding beyond 12 months, however only 20% were able to continue breast feeding upto or beyond 24 months. Our study showed better breast feeding rates as compared to developed nations, where in a study breast feeding rates were 22% in UK and 72% in Sweden, respectively. ⁽¹⁷⁾ Yesildal et al (2012) in their study ⁽¹⁸⁾ in Turkey showed that the rate of continued breast feeding was 10.0% while it was better in our study (20%), however it was lower than study by Bahl et al (30%). ⁽¹⁹⁾

In our study we found that 93.75% of mothers used colostrums which is a significant higher rates as compared to study by Srivastava et al (17%), Kumar et al(16%). ⁽²⁰⁾

Most of the mothers (71.25%) started weaning between 6-12 months of age, 22.5% between 4-6 months, 5% between 12-24 months and 1.25% in less than 4 months. A study by Prabhakar et al showed that 90% of mothers in Bangalore started weaning after 12 months of age. ⁽²¹⁾ In another study by Gupta et al it was observed that 25% of mothers did not start complementary feeding even after 12 months of age while this figure in our study was found to be 5%. ⁽²²⁾

Contrary to expectation of breastfeeding practices among healthcare workers, only 58.75% of mothers could exclusively breastfeed their babies for recommended 6 months duration. This seems to the fact that all these mothers are working and undertake night shift duties also. We also found that most important reason for discontinuation of breast feeding was due to resumption of duties. However we could not study other social factors like presence/absence of caretakers at home (nuclear/combined family).

One of the limitations of our study is that subjects are highly selective target population and are well informed of correct breastfeeding practices. As most of studies on breastfeeding practices are on

general population, our study is bound to have biases in results when compared to general population, secondly methods of collecting data is recall based & hence there is possibility of recall bias. There are very few studies on healthcare personnel and our study shows similar results to other studies (Renitha et al) and is better than national data in terms of exclusive breastfeeding rates. Use of prelacteal feeds was prominent in our studies in both medics and paramedics group, there was no significant statistical correlation. Thus breast feeding practices need to be reinforced among healthcare workers.

CONCLUSION

Study showed that although good numbers (82.5%) of mothers could start breastfeeding within 12 hrs of birth still breastfeeding practices do not seem to be appropriate as significant numbers of mothers had given prelacteal feeds to their newborn babies. Despite being well aware of correct breastfeeding practices, significant proportion of mothers is not able to implement the same for themselves while feeding the baby. This indicates further reinforcement of correct breastfeeding practices through various measures and especially during antenatal visits. Baby friendly hospital initiative need to be implemented more intensely even among health care workers who are otherwise assumed of knowing correct breast feeding practices.

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