International Journal of Contemporary Pediatrics
Rai R et al. Int J Contemp Pediatr. 2023 Oct;10(10):1550-1557
http://www.ijpediatrics.com
pISSN 2349-3283 | eISSN 2349-3291

DOI: https://dx.doi.org/10.18203/2349-3291.ijcp20232883

Original Research Article

Impact of educational intervention on breastfeeding practices of mother undergoing institutional delivery

Rajesh Rai, Reshma Khatun*, Prithi Inamdar, Rohan Patil

Department of Pediatrics, DY Patil University, Navi Mumbai, Maharashtra, India

Received: 22 July 2023
Revised: 01 September 2023
Accepted: 04 September 2023

***Correspondence:**
Dr. Reshma Khatun,
E-mail: reshmakhatun0208@gmail.com

ABSTRACT

Background: Existing literature shows that education and supportive interventions, both for breast-feeding mothers as well as for healthcare professionals, can increase the proportion of women that use exclusive breast-feeding. Healthy nursing practise can be encouraged by offering mothers the proper guidance from medical professionals and by designing educational programmes that explicitly target women with low levels of education and few resources. Aims was to study the effect of structured educational intervention for improving appropriate breastfeeding practices at 6-8 weeks of birth and to evaluate the factors causing deviation from recommended breastfeeding norms.
Methods: An interventional study was done to assess breastfeeding knowledge, attitude and practices of mother undergoing institutional delivery in the Department of Paediatrics, D. Y. Patil University School of Medicine, Nerul, Navi Mumbai. Continuous Data was presented as mean, median, and standard deviation. Categorical data were presented as frequency and percentages. Statistical analysis was carried out with the help of statistical test such as Chi-square test to know the significant relationship and software used was SPSS 26. The level of significance was set at 5%. All p values less than 0.05 was treated as significant.
Results: We found that additional educational intervention over and above to routine counselling significantly improved knowledge of not using pre-lacteal feeds in intervention group (p=0.0003), the understanding of importance of colostrum (p=0.001). Most importantly, Group 1 had exclusive breastfeeding rate of 74.5% (149/200) as compared to group 2 with additional intervention; who had exclusive breastfeeding rate of 93.5% (187/200) (p<0.0001).
Conclusions: We could conclude that educational interventions in a structured format in the postnatal period can increase the exclusive breastfeeding rates and sustain it further lowering the mortality significantly.

Keywords: Educational intervention, Exclusive breastfeeding rates, Postnatal counselling, Breastfeeding practices

INTRODUCTION

Breastfeeding is the natural way to feed newborn, and human milk is the best adapted food for their nutritional needs. Breastfeeding is considered the most adequate way to feed newborn as it provides all of the nutrients that they need to grow and develop in optimal conditions. Exclusive breastfeeding (EBF), in which infants exclusively receive breast milk while accepting the use of rehydration salts, drops, syrups, vitamins, minerals, or medications.[1] Colostrum is the first milk which encourages the passage of stool which helps to clear excess bilirubin preventing jaundice and also helps to reduce one of the leading causes of death like diarrhoea and acute respiratory tract infections in infancy. The short-term benefits for newborn include a better nutritional and immunological state, better intestinal function, and a better establishment of attachment and increased psychological well-being. On the long-term, it decreases the risk of diabetes mellitus, obesity, heart disease in adults, certain allergy and inflammatory

diseases, and it influences neurocognitive development. The majority of neonatal deaths occur in low-resource environments, frequently at home in an environment of deprivation and harmful newborn care procedures. In India, neonatal mortality is still high with substantial geographical variations. According to studies, these fatalities can be prevented by putting a primary emphasis on preventative family, community, and healthcare interventions. On the first day of life, more than 50% of newborn deaths occur. In order to improve newborn care practices in the community, the creation of women's groups, a community participation strategy, has shown to be a promising community-based platform.[2] Some breastfeeding challenges that lead to early weaning are related to maternal features, such as being a young mother, having a low household income, working outside the home, having little education, being a single mother, lacking prior breastfeeding experience, being unaware of the benefits of breastfeeding, having no breastfeeding support in the maternity ward, and developing nipple fissure as a result of insufficient breastfeeding.[3] To close the gap between baseline and goal breastfeeding rates, a number of strategies are suggested, including education of new mothers and their partners, education of healthcare professionals, modifications to standard maternity ward procedures, social support, including support from employers, and increased media representation of breastfeeding as the typical infant feeding method. A Cochrane meta-analysis of multiple trials addressing these and other forms of breastfeeding support showed evidence that professional support increases breastfeeding rates.[4] Although there are huge number of studies from India which look into breast feeding practices and studies on structured interventions are lacking. We planned this study to see if a protocolized reinforcement on breast feeding practices improve the exclusive breast-feeding rates in mothers.

METHODS

This is an interventional study conducted in mothers who delivered in our hospital, D. Y. Patil university school of medicine and hospital, Nerul, Navi Mumbai during 1 year period (01 January 22 to 31 October 22) in OBGY ward after the institutional ethics committee approved the study. Informed Consent were taken and whosoever fulfilled the inclusion criteria were included in the study. Total of 400 mothers (200 in each group) included in the study.

Inclusion and exclusion criteria

All successive delivery conducted in our hospital were included. Preterm babies less than 35 weeks, newborn needing NICU care and babies with congenital anomalies were excluded.

Procedure

The study period was divided into two parts. First group was enrolled from 01 January 22 to 30 May 22. Successive mother fulfilling eligibility criteria were enrolled in the study. Knowledge, attitude and practices of breastfeeding in the enrolled mothers were assessed using questionnaire attached. The mothers were routinely counselled in the ward. At 6-8 weeks follow up, mothers were reassessed using the same questionnaire. Second group was enrolled from 01 June 2022 to 31 October 22. Successive mother fulfilling eligibility criteria were enrolled in the study. Knowledge, attitude and practices of breastfeeding were assessed using questionnaire about breastfeeding attached. The mothers were counselled by educational interventional methods with the help of power point presentation, act, pamphlets, videos in addition to routine counselling. At 6-8 weeks follow up again these enrolled mothers were assessed by the same questionnaire. Continuous Data was presented as mean, median, and standard deviation. Categorical data were presented as frequency and percentages. Statistical analysis was carried out with the help of statistical test such as Chi-square test to know the significant relationship. The level of significance was set at 5%. All p values less than 0.05 was treated as significant.

Educational interventions

Power point presentations showing different positions of breastfeeding, correct latching method, burping after feeding, not to give pre-lacteal feed, various advantages of breastfeeding in mother and baby, no bottle feeding and demonstration of breastfeeding techniques, distribution of pamphlets showing latching, question & answer session, videos showing importance of exclusive breastfeeding from online platform and group discussions.

RESULTS

The median age of mothers included in the study was 27 years in group 1 and 26 years in group 2 with age range of 18-40 years. Both the study groups were comparable to each other in terms of education level of mothers, religion of mother and parity of mother. Similarly, both groups were comparable in terms of gestational age at delivery, mode of delivery and gender of the baby. In our study interventional group 2 had more low birth weight babies (58/200 babies) than group 1 (36/200 babies). However, the mean birth weight of both groups remains same. Hence the difference in absolute numbers is unlikely to create a bias in the study. The median age of mothers included in the study was 27 years in group 1 and 26 years in group 2 with age range of 18-40 years with p value of 0.9. This was comparable with the national average data where the major age group of Age specific marital fertility rates was in the age group of 20-24 years. Both the study groups were comparable to each other in terms of education level of mothers (p value of 0.12), religion of mother (p value of 0.3) and parity of mother (p value of 0.8). Similarly, both groups were comparable in terms of gestational age at delivery (p value of 0.1), mode of delivery (p value=0.08) and gender of the baby (p value=0.8).

Table 1: Characteristics of participating mothers in both groups.

Characteristics of mother	Group 1 (non-interventional), N (%)	Group 2 (interventional), N (%)	P value
Age (years) (mean±SD)	27.18±4.41	26.88±4.47	
≤20	11 (5.5)	13 (6.5)	
21-25	63 (31.5)	72 (36)	0.9
26-30	88 (44)	75 (37.5)	
31-35	28 (14)	31 (15.5)	
>35	10 (5)	09 (4.5)	
Education			
Illiterate	4 (2)	3 (1.5)	
High school	83 (41.5)	75 (37.5)	0.12
Secondary high school	85 (42.5)	77 (38.5)	
Graduate	25 (12.5)	44 (22)	
Professional	3 (1.5)	1 (0.5)	
Religion			
Hindu	122 (61)	132 (66)	0.3
Muslim	78 (39)	66 (33)	
Christian	0 (0)	1 (0.5)	
Gravida			
Primigravida	68 (34)	66 (33)	
Gravida 2	64 (32)	65 (32.5)	
Gravida 3	43 (21.5)	48 (24)	0.8
Gravida 4	19 (9.5)	14 (7)	
Gravida 5	06 (3)	06 (3)	
Gravida >5	0 (0)	01 (0.5)	

Table 2: Child-birth related characteristics of participants in the study in both groups.

Characteristics	Group 1, N (%)	Group 2, N (%)	P value
Gestational age at delivery			0.1
Full term	187 (93.5)	193 (96.5)	
Late preterm	13 (6.5)	7 (3.5)	
Mode of delivery			
LSCS	113 (56.5)	130 (65)	0.08
Vaginal delivery	87 (43.5)	70 (35)	
Gender of baby			
Male	97 (48.5)	99 (49.5)	0.8
Female	103 (51.5)	101 (50.5)	
Birth weight of baby (g)			0.009
Mean±SD	2849.8±347.4	2823.73±1425.24	

In our study interventional group 2 had more low birth weight babies (58/200 babies) than group 1 (36/200 babies) with p value of 0.009. However, the mean birth weight of both groups remains same. Hence the difference in absolute numbers is unlikely to create a bias in the study. After providing educational intervention to group 2 and routine counselling to group 1, 92.5% (N=185) mothers from group 1 told colostrum is good for baby and 99% (N=198) from group 2 agreed for the same and it is statistically significant according to Chi-square Test with Chi-square value: 10.3 and p value: 0.001. After counselling the mothers, in group 1, 168 (84%) mothers agreed that babies don't need pre-lacteal foods and in group 2, 195 (97.5%) mothers agreed after educational intervention and it is statistically significant after applying Chi-square test. On asking the mothers after 6-8 weeks, 57.5% and 73.5% mothers from group 1 and group 2 respectively were feeding their baby on demand and it is statistically significant by chi-square test with p value=0.0007. After 6-8 weeks, a comparison of the effects of educational intervention on group 2 and regular counselling to mothers on the practice of exclusive breastfeeding between group 1 and group 2 revealed that 74.5% of mothers and 93.5% of mothers from each group continued to do so, respectively. This result was statistically significant when Chi-square Test was used, with a Chi-square value of 26.8 and a p value of <0.0001. In our study, 85.5% in group 1 had started breastfeeding within 1 hour of delivery and 86.5% in group 2.

Table 3: Comparison for knowledge, attitude and practices for breastfeeding on day 1 of postnatal period without any form of counselling.

Parameters	Group 1	Group 2	P value (Chi-square test)
Knowledge of initiation of feeding within one hour	136/200	139/200	0.7
Knowledge of initial milk being enough	72/200	71/200	0.9
Colostrum is good	160/200	157/200	0.7
Knowledge that Breastfeeding can be continued during fever	84/200	91/200	0.4
Knowledge of using Expressed breast milk within 4-6 hours	198/200	199/200	0.56
Knowledge that Breastfeeding protect baby	177/200	171/200	0.3
Knowledge of Adequacy of feed if baby sleeps well	128/200	132/200	0.57
Knowledge of lactational amenorrhea	41/200	39/200	0.8
Attitude of not Using of Pre-lacteal feed	136/200	145/200	0.32
Practice of giving only foremilk	77/200	87/200	0.3
Feeding on demand	122/200	115/200	0.4
Practice of cleaning breast before feeding	50/200	56/200	0.4
Practice of exclusive breastfeeding	155/200	156/200	0.9
Practice of burping	136/200	141/200	0.5

Table 4: Comparison of impact of educational intervention on knowledge of whether colostrum is good for newborn baby in study subjects between Group 1 and Group 2 after 6-8 weeks.

Educational intervention	Knowledge of whether colostrum is good for newborn baby			
	Yes		No	
	N	%	N	%
Group 1	185	92.5	15	7.5
Group 2	198	99	02	1

Chi-square value: 10.3 and p value: 0.001 (statistically significant).

Table 5: Comparison of impact of educational intervention on attitude of not using pre-lacteal feed to newborn baby in study subjects between Group 1 and Group 2 after 6-8 weeks.

Educational intervention	Attitude of not using pre-lacteal feed to newborn baby			
	Yes		No	
	N	%	N	%
Group 1	32	16	168	84
Group 2	05	2.5	195	97.5

Chi-square value: 21.7 and p value: 0.00003 (statistically significant).

Table 6: Comparison of impact of educational intervention on practice of feeding on demand to newborn baby in study subjects between Group 1 and Group 2 after 6-8 weeks.

Educational intervention	Practice of feeding on demand			
	Yes		No	
	N	%	N	%
Group 1	115	57.5	85	42.5
Group 2	147	73.5	53	26.5

Chi-square value: 11 and p value: 0.0007 (statistically significant).

Table 7: Comparison of impact of educational intervention on practice of exclusive breast feeding in study subjects between Group 1 and Group 2 after 6-8 weeks.

Educational intervention	Practice of exclusive breast feeding			
	Yes		No	
	N	%	N	%
Group 1	149	74.5	51	25.5
Group 2	187	93.5	13	6.5

Chi-square value: 26.8 and p<0.0001 (statistically significant).

On comparing between both the groups, chi square test applied to know the relationship between birth weight of babies in both the groups and Practice of exclusive breast feeding at 6-8 weeks after routine counselling in group 1 and additional intervention in group 2 and it was statistically significant (p value=0.001, Chi-square value=10.3). On comparing between both the groups, chi square test applied to know the relationship between gender of babies in both the groups and Practice of exclusive breast feeding at 6-8 weeks after routine counselling in group 1 and additional intervention in group 2 and it was statistically not significant (p value=0.3, Chi-square value=0.83).

Table 8: Comparison of initiation of breastfeeding after birth in both groups before any counselling.

Educational intervention	Initiation of breast feeding after birth			
	≤1 hour		>1 hour	
	N	%	N	%
Group 1	171	85.5	29	14.5
Group 2	173	86.5	27	13.5

Chi-square value: 0.08 and p<0.77 (statistically not significant).

Table 9: Birth weight and practice of exclusive breast feeding in both groups.

Levels	Birth weight			
	Group 1		Group 2	
	N	%	N	%
Normal	126/164	76.8	130/142	91.5
Low	23/36	63.8	57/58	98.3
Total	149	100	187	100

Table 10: Gender of baby and practice of exclusive breast feeding.

Levels	Birth weight			
	Group 1		Group 2	
	N	%	N	%
Male	80/97	82.4	91/99	91.9
Female	69/103	66.9	96/101	95
Total	149	100	187	100

DISCUSSION

Out of 14 parameters studied, we found that additional educational intervention over and above to routine counselling significantly improved knowledge of not using pre-lacteal feeds in intervention group (p value of 0.0003). It also improved the understanding of importance of colostrum (p value of 0.001). We did not find any significant difference in two groups in terms of knowledge of initiation of breastfeeding after delivery (p value of 0.5), adequacy of initial milk (p value of 0.5), breastfeeding during fever (p value of 0.65), breastfeeding protects baby (p value of 1), knowledge of lactational amenorrhea (p value of 0.66). Out of parameters of practices, after the educational intervention, the significant improvement seen in practicing feeding on demand (p value of 0.0007) as compared to routine counselling. In our study, 85.5% (N=171) of mothers from group 1 and 86.5% (N=173) from group 2 had initiated breastmilk with colostrum within 1 hour of delivery. This data is prior to counselling either routine or additional intervention. Most importantly, in our study, we found that rate of exclusive breast feeding at 6 weeks was better in group 2 as compared to group 1. Group 1 with routine counselling; had exclusive breastfeeding rate of 74.5% (149/200) as compared to group 2 with additional intervention; who had exclusive breastfeeding rate of 93.5% (187/200) (p value of <0.0001). On comparing with similar study done by Souza EFC, Pina-Oliveira AA, Shimo AKK in Brazil, 2020 which included 104 postpartum women (intervention group =52 and control group =52) whose educational intervention was based on the pragmatic theory and use of a soft-hard technology called breastfeeding educational kit (Kit Educativo para Aleitamento Materno, KEAM). This kit included Dialogical, visual, and interactive approaches for the practical management of BF with the aim of creating opportunities for pregnant women to manipulate the items included in the KEAM, allowing for practical simulations of use or for the selection of each item, providing instantaneous feedback, and clarifying doubts. It was found to be statistically significant (p value <0.05) in lesser breastfeeding difficulties and improved rate of exclusive breastfeeding rates at all time points compared with those in the control group.[5] The parameters showed no significant differences at 6 to 8 weeks in both groups in terms of feeding at interval (p value of 6.4), wrong practice of giving

only fore milk (p value of 0.8), cleaning breast before feeding (p value of 0.3) and practice of burping (p value of 0.52). Thus, despite the fact that routine counselling improves breastfeeding practices in mother, vigorous intervention results in sustained and feeding practices in mothers. All parameters were improved in group with additional intervention although statistical significance could not be proved in few parameters. In our study, 85.5% (N=171) of mothers from group 1 and 86.5% (N=173) from group 2 had initiated breastmilk with colostrum within 1 hour of delivery. This data is prior to counselling either routine or additional intervention. Comparing our data with other similar studies, we came across a cross-sectional survey of 9124 eligible women (who had a live birth in 59 days preceding the survey) conducted in 25 districts of Uttar Pradesh, India, in 2018, showed that 48.1% of mothers-initiated breastfeeding within an hour.[6] We compared other studies similar to ours which had compared intervention group to control group. In a study conducted in rural India, it was found that Intervention groups showed greater improvement than control groups in the timely initiation of breastfeeding, exclusive breastfeeding on day 1, initiation of skin-to-skin care and delayed bathing.[7]

Similarly in another study which was a controlled intervention study performed in South-eastern Brazil, there was a significant increase in exclusive breastfeeding after the educational activities for the Family Health Program teams. After the intervention, survival curves of exclusive breastfeeding were significantly different by the log rank test (p=0.001).[8]

Another study which was a quasi-experimental design done by Dellen et al. in Netherlands compared breastfeeding duration and exclusivity in the breastfeeding Support Programme (BSP) group (N = 66) to breastfeeding duration and exclusivity in a control group (N=72). It was found that the effect of the BSP on survival rates for exclusive breastfeeding however was still significant while controlling for differences between the two groups at baseline (p value=0.006).[9] A study by Martín et al BMC Pregnancy and Childbirth in 2022 in Madrid, Spain in which educational intervention was done in the form of theoretical and practical content, active participation of the mothers in discussion groups and the learning of skills through the direct practice of breastfeeding and in result it was found that exclusive breastfeeding rate was 22.4% (95% CI: 16.9-27.9) of the mothers in the intervention group & 8.8% (95% CI: 5.04-12.63) in the control group and early initiation of breastfeeding was done in control group 163/215 (75.8%) and in interventional group 183/219 (83.9%), p value=0.04.[10] Another study by Mostafa et al which educational intervention was Power point presentation, discussion, and problem solving and additional clinical practice sessions (using dolls and role plays). It was found that attitude of Exclusive breastfeeding rate in control group 80.2±8.6 and in intervention group 83.4±9 with p value=0.005 and early initiation of breastfeeding in control group 68.8±24.2 in intervention group after 3 months 86.9±19, p value =0.001.[11] A study by Souza TO et al in Brazil in which educational interventions were in the form of breast model, doll, and specific video about technique, of breastfeeding, exclusive breastfeeding in the first month of life was 76.6% in the experimental group, and 52.2% in the control group. The p value=0.001, breastfed in the first hour of delivery-in experimental group 30 (33.3%) and in control group 21 (23.3%), p value =0.14.[12] In a study by Howell et al from New York, educational interventions were done in which behavioural educational intervention about postpartum symptoms and experiences (including tips on breastfeeding and breast/nipple pain) and self-management skills, educational session with a social worker, educational materials, and a 2-week follow-up call.[13] Exclusive breastfeeding rate at 6 months after delivery in intervention group 7% and in the control group 4% , which is non-significant. Early initiation of breastfeeding in intervention group 231/270 (86%) and in control group 220/270 (81%), p value =0.20. A study by Saggurti et al educational interventions were done in the form of 2 Modules. Module 1 consist of story play narrating the importance and right way of practicing neonatal care behaviours and flip cards were also for the same and Module 2 focused on exclusive breastfeeding till 6 months covers the importance of behaviour through a cardboard puzzle game. Results were exclusive breastfeeding on day 1 in intervention group in year of 2013-78.6%, 2014-91.0%, 2015-91.2% (p value= <0.001) and in control group in the year of 2013-85.7%, 2014-88.7%, 2015-84.0% (p value= 0.632). Timely initiation of breastfeeding in intervention group in year of 2013-45.9%, 2014-78.2%, 2016-86.6% (p value≤0.001) and in control group in the year of 2013-71.4%, 2014-57.3%, 2015-62.5% (p value=0.378). We also collected data for other parameters in terms of adequacy of breast milk if the child sleeps well after feeds (p=0.0009), knowledge that expressed breastmilk has to be used within 6 hours in room temperature (p value of 0.01), knowledge of initiation of breastfeeding after delivery (p value of 0.5), adequacy of initial milk (p value of 0.5), breastfeeding during fever (p value of 0.65), breastfeeding protects baby (p value of 1), knowledge of lactational amenorrhea (p value of 0.66). The parameters showed no significant differences at 6 to 8 weeks in both groups in terms of feeding at interval (p value of 6.4), wrong practice of giving only fore milk (p value of 0.8), cleaning breast before feeding (p value of 0.3) and practice of burping (p value of 0.52). These data has not been described in this present article as it was not that significant and relevant to the study. There was no statistical difference in birth weight and practices of demand feeding, however low birth weight babies are less likely to breastfeed exclusively with Chi-square value=10.3 and p value=0.001. It was heartening to find no statistically significant difference in exclusive in breastfeeding rate between male and female infants in our population. In a questionnaire-based cross-sectional study by Debnath et al which was done in Banaras Hindu University, India which depicted various factors effecting breastfeeding practices and regarding knowledge and attitude about breastfeeding, 71.4% females considered breast milk was the best food for a new born and only 45%

of mothers started breastfeeding within an hour of giving birth while 27% of mothers provided pre-lacteal meals, the majority (82%) of women fed colostrum to their infants. Even after six months, 53.6 percent of mother had no formal education, 70 percent of mothers with only a high school diploma.[14,15] Howell et al did a similar study of five hundred forty mothers who were assigned randomly to the intervention (N=270) vs. control subjects (N=270). With mean age was 28 years (range, 18-46 year). Mothers in the intervention arm breastfed for a longer duration than did the control subjects (p=0.02) and also mothers in the intervention arm were less likely to quit breastfeeding over the first 6 months after delivery (hazard ratio, 0.79; 95% confidence interval, 0.65-0.97).[16]

This study along with other study proves that ongoing support to mothers during their hospital stay in the post-natal period with extensive counselling helps them expand their knowledge as well as built confidence to follow recommended breast-feeding practices in immediate postnatal period which ultimately translates into exclusive breast feeding. In comparison with all the mentioned studies, the exclusive breastfeeding rates at 6-8 weeks of delivery after counselling by educational intervention obtained in our study (93.5%) are even higher than those based on data from national health surveys (24.7%). Hence, we can say that the educational intervention based on active methodologies, videos and stimulating instructional resources was effective in developing greater practical mastery among postpartum women with regard to adherence and maintenance of exclusive breastfeeding.[17] This shows that extensive intervention in mothers can significantly improve the rate of breast feeding and early initiation of breast feeding. Every hospital should have a dedicate team to do individual and group counselling with a structured program to increase awareness about breast feeding.

Limitations

The time period for study was included only up to 6-8 weeks of follow up. Ideal would have been till 6 months. However, it is a common practice in this part of India that many mothers come for delivery to parental house and move to marital home at 12 weeks, patients would have been lost to follow up had we taken till 6 months. Since, this hospital is a Higher Referral Centre, mostly high-risk mothers get admitted and delivered babies goes to NICU due to which there was low sample size.

CONCLUSION

The rate of exclusive breast feeding at 6 weeks was better in group 2 as compared to group 1. Group 1 with routine counselling; had exclusive breastfeeding rate of 74.5% as compared to group 2 with additional intervention; who had exclusive breastfeeding rate of 93.5%. It also improved the understanding of importance of colostrum and knowledge of not using pre-lacteal feeds in intervention group. 85.5% mothers from group 1 and 86.5% from group 2 had initiated breastmilk with colostrum within 1 hour of delivery. Age and education status of mother had no significant relationship with use of pre-lacteal feeds, knowledge that colostrum is good, practice of demand feeding, wrong practice of feeding top milk and exclusive breastfeeding. Low birth weight babies are less likely to breastfeed exclusively. Gender of baby did not make any difference in exclusive breastfeeding rate. Our study shows that increasing mother education and counselling families over visits to health facilities such as antenatal check-ups and immunisation visits, which are frequently handled by primary care physicians, can improve the percentage of exclusive breastfeeding.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Martín-Iglesias S, Santamaría-Martín MJ, Alonso-Álvarez A, Rico-Blázquez M, Del Cura-González I, Rodríguez-Barrientosn R, et al. Effectiveness of an educational group intervention in primary healthcare for continued exclusive breast-feeding: PROLACT study. BMC Preg Childbirth. 2018;18(1):59.
2. Saggurti N, Porwal A, Atmavilas Y, Walia M, Das R, Irani L. Effect of behavioral change intervention around new-born care practices among most marginalized women in self-help groups in rural India: analyses of three cross-sectional surveys between 2013 and 2016. J Perinatol. 2019;39(7):990-9.
3. Maleki A, Faghihzadeh E, Youseflu S. The Effect of Educational Intervention on Improvement of Breastfeeding Self-Efficacy: A Systematic Review and Meta-Analysis. Obstet Gynecol Int. 2021;2021: 5522229.
4. Britton C. Support for breastfeeding mothers. J Perinatol. 1996;2(3):42-8
5. Souza EFDC, Pina-Oliveira AA, Shimo AKK. Effect of a breastfeeding educational intervention: a randomized controlled trial. Rev Lat Am Enfermagem. 2020;28: e3335.
6. Namasivayam V, Dehury B, Prakash R, Becker M, Avery L, Sankaran D, et al. Association of prenatal counselling and immediate postnatal support with early initiation of breastfeeding in Uttar Pradesh, India. Int Breastfeed J. 2021;16(1):26.
7. Porwal A, Atmavilas Y, Walia M, Das R, Irani L. Effect of behavioral change intervention around new-born care practices among most marginalized women in self-help groups in rural India: analyses of three cross-sectional surveys between 2013 and 2016. J Perinatol. 2019;39(7):990-9.
8. Caldeira AP, Fagundes GC, de Aguiar GN. Educational intervention on breastfeeding promotion to the Family Health Program team]. Rev Saude Publica. 2008; 42(6):1027-33.
9. van Dellen SA, Wisse B, Mobach MP, Dijkstra A. The

effect of a breastfeeding support programme on breastfeeding duration and exclusivity: a quasi-experiment. BMC Public Health. 2019;19(1):993.
10. Santamaría-Martín MJ, Martín-Iglesias S, Schwarz C, Rico-Blázquez M, Portocarrero-Nuñez JA, Diez-Izquierdo L, et al. Effectiveness of a group educational intervention - prolact - in primary care to promote exclusive breastfeeding: a cluster randomized clinical trial. BMC Preg Childbirth. 2022;22(1):132.
11. Mostafa OA, Salem MR, Badr AM. Effect of an educational intervention on breastfeeding knowledge and attitude among interns at Cairo University Hospital. J Egypt Public Health Assoc. 2019;94(1):19.
12. Howell EA, Bodnar-Deren S, Balbierz A. An intervention to extend breastfeeding among black and Latina mothers after delivery. Am J Obstet Gynecol. 2014;210:239.e1-5.
13. Walia M, Das R, Irani L. Effect of behavioral change intervention around new-born care practices among most marginalized women in self-help groups in rural India: analyses of three cross-sectional surveys between 2013 and 2016. J Perinatol. 2019;39(7):990-9.
14. Debnath F, Mondal N, Deb AK, Chakraborty D, Chakraborty S, Dutta S. Determinants of optimum exclusive breastfeeding duration in rural India: a mixed method approach using cohort and content analysis design. Int Breastfeed J. 2021;16(1):13.
15. Howell EA, Bodnar-Deren S, Balbierz A, Parides M, Bickell N. An intervention to extend breastfeeding among black and Latina mothers after delivery. Am J Obstet Gynecol. 2014;210(3):239.e1-5.
16. Souza EFDC, Pina-Oliveira AA, Shimo AKK. Effect of a breastfeeding educational intervention: a randomized controlled trial. Rev Lat Am Enfermagem. 2020; 28:e3335.

Cite this article as: Rai R, Khatun R, Inamdar P, Patil R. Impact of educational intervention on breastfeeding practices of mother undergoing institutional delivery. Int J Contemp Pediatr 2023;10:1550-7.