

## Original Research Article

# Effect of socio demographic profile on knowledge, attitude and practices of mothers regarding breastfeeding of Lucknow district

Sachi Ojha<sup>1</sup>, Shitanshu Srivastava<sup>2\*</sup>, Pratibha Gupta<sup>3</sup>, Divyanshu Agrawal<sup>1</sup>

<sup>1</sup>ELMC&H, Lucknow, Uttar Pradesh, India

<sup>2</sup>Department of Pediatrics, Dr Ram Manohar Lohia Institute of Medical Sciences, Lucknow, Uttar Pradesh, India

<sup>3</sup>Department of Community Medicine, ELMC&H, Lucknow, Uttar Pradesh, India

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### \*Correspondence:

Dr. Shitanshu Srivastava,

E-mail: [dr\\_shitanshu@yahoo.co.in](mailto:dr_shitanshu@yahoo.co.in)

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## ABSTRACT

**Background:** Breastfeeding is the ideal source of nutrition for first six month of life which is globally recognised. There are various advantages of optimal breastfeeding but still breastfeeding rates in Uttar Pradesh is only 56%. This might be attributed to various social, cultural and economical factors. Since there is limited local data on the knowledge, attitudes and practices of women toward breastfeeding. hence, we planned this study to assess knowledge, attitude and practices (KAP) of mothers regarding breastfeeding and influence of sociodemographic profile on them.

**Methods:** A cross sectional study was conducted on 200 mothers coming to the rural and urban areas of a district with infants between 0-6 months. The data was collected using a predesigned questionnaire based on KAP about breastfeeding. The data was analyzed using (SPSS) version 21.0.

**Results:** Our study shows that regarding knowledge of breastfeeding, in rural group 42% considered colostrum as first breast milk. In contrast in urban group, 63% were aware that it was first breast milk ( $p=0.003$ ). Regarding practices, 56% of rural women had started breastfeeding within one hour while only 38% of urban women did the same ( $p=0.011$ ). Regarding attitude, 77% women of urban area agreed regarding goodness of colostrum for health followed by 48% of rural women ( $p\leq 0.001$ ). Most of the women agreed to the belief that a baby should burp after feeding (94% rural and 91% urban).

**Conclusions:** The Gap between KAP regarding breastfeeding exists in rural and urban setups. So, proper strategies should be planned depending on socio-demographic profile.

**Keywords:** Breastfeeding, Colostrum, Infant

## INTRODUCTION

Benefits of breastfeeding for both infants and mothers are globally recognized and is an ideal source of nourishment till six months of life.<sup>1</sup> The World Health Organization (WHO) recommends continued breastfeeding up to two years of age or beyond and it has been estimated that optimal breastfeeding of children younger than two years, could annually save the lives of over 800,000 children under five years of age.<sup>2,3</sup>

WHO defines "exclusive breastfeeding" as no other food or drink, not even water, except breast milk (including milk expressed or from a wet nurse) for six months of life, but allows the infant to receive ORS, drops and syrups (vitamins, minerals and medicines).<sup>4</sup>

As per National family health survey IV (2015-16), only 42 percent of children under 6 months are exclusively breastfed. Continuous vigilance over infant feeding

practices in the community is necessary for timely interventions, to ensure optimal growth and development.

Pre lacteal feeds should not be given but still the majority of woman give sugar water or honey. Discarding the colostrum is still practiced widely. The colostrum is rich in vitamins, minerals, and immunoglobulin that protect the child from infections.<sup>5</sup> Practice of breastfeeding among Indian mothers is almost universal, but initiation of breastfeeding is quite late and the colostrum is usually discarded.<sup>6</sup> Breastfeeding practices in rural communities are shaped by their beliefs, which are influenced by social, cultural, and economic factors.<sup>7</sup>

Moreover, to bring a significant change in breastfeeding practices, local data regarding knowledge, attitude and practices needs to be collected and addressed. Therefore, we aimed to identify the influence of socio-demographic factors on knowledge and attitudes and practices (KAP) of women regarding breastfeeding.

## METHODS

A cross sectional study was done over a period of eight months after taking institutional ethical clearance and informed consent from mothers. The study population comprised of Mothers with infant between 0-6 months of age coming to the rural and urban health centre of a teaching hospital.

Mothers who were not willing to participate were excluded. The data was collected using a predesigned questionnaire based on knowledge, attitude and practices about breastfeeding.

The sample size was calculated on the basis of prevalence (p) of exclusive breast-feeding NFHS-2005-2006 using the formula,

$$n = \frac{4pq}{d^2}$$

d = allowable error 7.5% absolute for 90% power of study.

Data loss= 10%, then sample size came out to be 200. We included 100 mother infant pair each from rural and urban centre.

The data was analyzed using (SPSS) version 21.0. Chi-square test and Independent samples 't'-test was used to compare the data. A 'p' value less than 0.05 is suggestive of a statistically significant difference.

## RESULTS

A total 200 women falling in sampling frame were included out of which 100 were from rural and 100 from urban areas. They were assessed for knowledge, attitudes and practices regarding breastfeeding.

Table one compares the knowledge level of rural and urban women with respect to breastfeeding. On assessing knowledge regarding breastfeeding, 60% mothers in rural and 91% ( $\chi^2=26.0$ ,  $p<0.001$ ) urban mothers knew that breast milk was best food for baby. Regarding time to start breastfeeding 28% of rural and only 40% of urban mothers ( $\chi^2=3.21$ ,  $p=0.073$ ) knew that breastfeeding should be started within one hour of baby's birth. Regarding colostrum 42% rural 63% urban mothers were aware that it was first breast milk, the difference was statistically significant ( $p=0.003$ ).

Knowledge regarding benefits of colostrum was also lacking in both rural and urban setup. Only 37% of rural and 56% of urban women was aware that colostrum is needed to boost immunity.

56% rural and 62% urban women knew that exclusive breast-feeding should continue up to first six months of life. There were also gaps in knowledge regarding timing of breastfeeds in both the groups. Majority of rural women (64%) considered appropriate time for feeding to be done whenever child cries while only 46% of urban women considered it so. With respect to position of mother during breastfeeding, 56% rural mothers considered side lying as the ideal position followed by sitting position (44%) whereas in urban group 56% considered sitting position to be ideal position followed by side lying 43% and 1% standing respectively

Table 2 shows the comparison of practices of urban and rural women regarding breastfeeding. 56% of rural women had started breastfeeding within one hour, on the other hand only 38% of urban women did the same. This may be attributed to the high incidence of caesarian deliveries in urban areas that causes a delay in the onset of breastfeeding.

The proportion of those who fed colostrum was higher in urban 76% as compared to rural area 50%. 93% of rural and 87% of urban women fed their babies 2-4 times at night or when the baby woke up.

54% of rural and 60% women of urban areas were willing to continue exclusive breastfeeding up to six months followed by 46% of rural and 40% of urban women who were willing to continue the same up to nine months or longer. Statistically, there was no significant difference between two groups with respect to duration to continue exclusive breastfeeding ( $p=0.391$ ).

Table 3 compares the attitude of rural and urban women with respect to breastfeeding. 77% of women of urban area agreed regarding goodness of colostrum for health followed by 48% of rural women. 52% of rural and 23% of urban women were uncertain or disagreed. 58% of women residing in rural areas and 48% if urban women agreed that one should stop feeding the child if he/she has cough/fever, followed by 42% rural and 52% urban who were uncertain or disagreeing.

With respect to attitudes on the belief that breastfeeding protects from diseases of breast, 49% rural and 43% urban of women agreed. 64% of women of rural area agreed that breastfeeding should be stopped when starting complementary feeding while 36% were uncertain or

disagreed with this. On the contrary in urban area, women those disagreeing were higher (58%). Most of the women agreed to the belief that a baby should burp after feeding (94% rural and 91% urban).

**Table 1: Comparison of knowledge of urban and rural women regarding breastfeeding.**

SN	Factor	Rural (n=100) N (%)	Urban (n=100) N (%)	$\chi^2$	P value
1.	Best food for baby				
	Breast milk	60	91	26.0	<0.001
	Cow's milk/others	40	9		
2.	Time to start breastfeeding				
	Within 1 hour	28	40	3.21	0.073
	Later than an hour	72	60		
3.	Colostrum				
	First breast milk	42	63	8.84	0.003
	Don't know Breast milk/Secreted after 5 days/ 2weeks/ others	58	37		
4.	Need for colostrum				
	For immunity	37	56	1.02	0.313
	Promoting growth/food/others	63	44		
5.	Period of exclusive breastfeeding				
	First 6 months	56	62	0.744	0.388
	First 2 months/more than a year	44	38		
6.	Time for feeding				
	Child cries	64	46	6.55	0.011
	On schedule/as per convenience	36	54		
7.	Position of mother during breastfeeding				
	Side lying	56	43	4.15	0.126
	Sitting	44	56		
Standing	0	1			

**Table 2: Comparison of practices of urban and rural women regarding breastfeeding.**

SN	Practice	Rural (n=100) N (%)	Urban (n=100) N (%)	$\chi^2$	P value
1.	Started breastfeeding				
	Within 2-4 hrs	56	38	6.50	0.011
	Others	44	62		
2.	Fed colostrum	50	76	14.5	<0.001
3.	Frequency of feeding in night				
	1-2 times	7	13	2.00	1.57
	2-4 times/when baby wakes up	93	87		
4.	Willingness to continue exclusive breastfeeding				
	Up to 6 months	54	60	0.734	0.391
	Up to 9 months/1 year/2 years	46	40		
5.	Complementary feeding before 6 months				
	Formula milk	46	47	0.020	0.887
	Others	54	53		

**Table 3: Comparison of attitude of urban and rural women regarding breastfeeding**

SN	Attitude	Rural (n=100) N (%)	Urban (n=100) N (%)	$\chi^2$	P value
1.	Colostrum is good for health				
	Agree	48	77	17.9	<0.001
	Uncertain/disagree	52	23		
2.	Stop feeding when child has cough/fever				
	Agree	58	48	2.01	0.157
	Uncertain/disagree	42	52		
3.	Breastfeeding protects from diseases of breast				
	Agree	49	43	0.725	0.395
	Uncertain/disagree	51	57		
4.	Stop breastfeeding when starting complementary feed				
	Agree	64	42	9.71	0.002
	Uncertain/disagree	36	58		
5.	Baby should burp after feeding				
	Agree	94	91	0.649	0.421
	Uncertain/disagree	6	9		

## DISCUSSION

Purpose and benefits of breastfeeding has been stressed all over the world by various health organizations and community-based programs and approaches.

The current study has observed that the knowledge of the urban women regarding what was the best food for the baby and what is the appropriate time to start the breastfeeding was superior to the women residing in rural areas. 91% urban women believed that breast milk was the best food for their infants as opposed to 60% rural women who shared the same opinion. 28% women of rural areas believed that breastfeeding must be initiated within one hour vis-à-vis 63% women of urban areas felt it must be initiated within one hour.

The practice of initiating breastfeeding within one hour was only 38% in urban women whereas 56% of women in rural areas fed their infants within 1-2 hours of their birth. Gaps in knowledge regarding breastfeeding was present in both rural and urban setups. A south Indian based study Chinnasami et al has shown that although 80% women in general had the knowledge to initiate breastfeeding within one hour only 35.5% did so.<sup>8</sup> A Ghana based study by Sriram et al has shown that breastfeeding within one hour of delivery reduces the mortality by 22%.<sup>9</sup> This shows that health programmes imparting knowledge are not enough neither have women received appropriate antenatal counseling.

Similarly when the knowledge about what colostrum is and why is it essential was evaluated, 42% of rural women and 63% of urban women were aware that it was the first breast milk. 50% of women of rural area gave colostrum to their infants. In urban areas 76% women gave colostrum. While the others discarded it as they were not aware of its importance. On evaluation of attitude of mothers 48% of rural women believed that

colostrum is good for health as opposed to 77% women of rural areas

The main reason for this in rural areas is on the advice of elders and their belief that colostrum is not good for the health of the baby. Similarly a study in Bihar has shown that about two third of mothers discarded colostrum.<sup>10</sup> The study has shown the trend of breast feeding in rural and urban areas to be almost the same. According to Kumar et al, 15.9% respondents threw away their colostrum while in study of Slama et al, 43% of mothers had no knowledge about colostrum.<sup>10-12</sup>

Regarding the knowledge of period of exclusive breast feeding should be continued for six months it was almost the same in both areas. (56% rural and 62% in urban) and so was the willingness to continue exclusive breast feeding in both areas. (54% in rural and 60% in urban). Chinnasami et al has shown that 11% women did not exclusively breast feed their child and 17% of them gave exclusive breast milk for three months only.<sup>8</sup> Mothers should be educated about the benefits of exclusive breastfeeding till six months. In a Delhi based study Taneja et al reported that although 90.6% of mothers breastfed their infants till six months, exclusive breastfeeding was not practiced in majority.<sup>13</sup> Medhi & Mahouta et al reported 100% breastfeeding rates with 69.35% of it being exclusive for six months.<sup>14</sup> Exclusive breast feeding rates by other studies were 36.8% (Ben Slamaetal) in Riyadh and 22.4% (Yesildal et al) in Turkey.<sup>13,15</sup> According to Karnawat et al demand feeding was preferred by 77% of lower class workers while 62% of doctors preferred timed feeding.<sup>16</sup>

In our study that 46% rural women and 47% urban started complementary feeding before six months. 64% women of rural area and 42% women of urban area believed that they should stop breastfeeding when they initiate complementary feeding. The attitude of women to make

their infant burp after feeding was the same in both areas. In a study done by Mushaphi et al in Vhembe district of Limpopo Province it was observed that about 77.30% mothers had started complementary foods to their infants before six months of age; most commonly they had done so as per elder's advice (45.00%).<sup>17</sup>

Contradictory observation was found in the urban and rural areas of Bihar in a study carried out by Yadav et al that 17.70% urban and 13.10% rural mothers started complementary foods before six months of age and 53.70% urban and 54.20% rural mothers started complementary foods between 6–12 months of age.<sup>10</sup> However, reason behind early weaning was found to be the apprehension that breast milk was not sufficient (30.00% in urban and 28.90% in rural area). Cereal preparations and milk formed are the major substitutes for children on breast milk. The main reasons for starting supplements were insufficient milk production by mother, child's demand and supplements are required for proper growth. There was no major difference in the knowledge regarding frequency of feeding in the night and the position to be adopted while feeding. As far as the knowledge of when to feed the child 64% women of rural area were aware of demand feeding as opposed to 46% women of urban areas

There was no major difference in the attitude of women of both areas regarding whether they should stop feeding the child when they are sick and whether breastfeeding protects women from diseases of the breast.

## CONCLUSION

Gaps in knowledge, attitude and practices regarding breastfeeding exists in both rural and urban setups and proper steps should be implemented to narrow this. Imparting knowledge and change in attitude through proper counselling may effect breastfeeding practices.

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