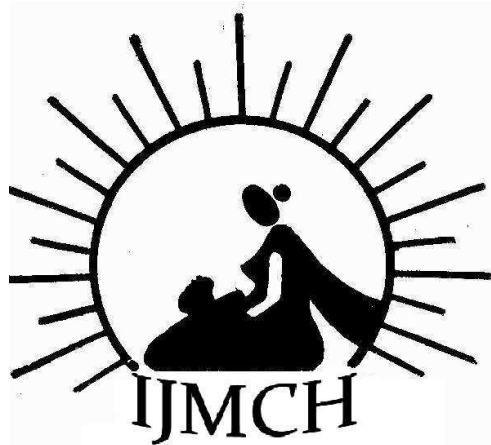


**Colostrum Feeding Practices Followed by Women -  
A Study in Rural Areas of Jawan Block, Aligarh, U.P.**

*Khan S  
Varshney T  
Pandey G  
Jahan F*

[www.ijmch.org](http://www.ijmch.org)



# **INDIAN JOURNAL OF MATERNAL AND CHILD HEALTH**

(i) To assess the practice regarding colostrum and prelacteal feeds among rural women (ii)  
To identify socio - demographic factors affecting colostrum feeding practice.

## Colostrum Feeding Practices Followed by Women - A Study in Rural Areas of Jawan Block, Aligarh, U.P.

Khan S,\* Varshney T,\*\* Pandey G,\*\* Jahan F\*\*

\*Lecturer, \*\* Research Scholars, Home science Department, Aligarh Muslim University (AMU), Aligarh

Correspondence: Tanuja Varshney

[tanuja.varshney@yahoo.com](mailto:tanuja.varshney@yahoo.com)

### ABSTRACT

**Objectives:** (i) To assess the practice regarding colostrum and prelacteal feeds among rural women (ii) To identify socio - demographic factors affecting colostrum feeding practice.

**Material and Methods:** The study was conducted in six Gram Panchayats of Jawan block of Aligarh district, U.P. Three hundred women who had male / female child up to age 12 months were purposively selected. Semi structured interview schedule was used during the course of study to collect the information.

**Results:** Eight percent of women started breast feeding within half an hour and 76.3 % of mothers discarded colostrum. Literacy level of mothers, place of delivery and general awareness were affecting colostrum feeding. Ninety percent of women were giving prelacteal feed to the newborn.

**Key words:** *Colostrum, Rural women, Prelacteal feeding.*

### INTRODUCTION

After few minutes of delivering baby, the breasts produce a thick lemon yellow pre milk substance called colostrum. Within the first few hours of life, a normal infant put on its mother's chest spontaneously roots, finds a nipple and starts to suckle. In many mammals, both the action of suckling and initial milk, called colostrum is necessary for the neonate to survive. This is not in case of humans. However, there is high evidence that both early suckling and intake play important roles in an infant's development both physical and psychological. This mammary secretion protects the infant against infection and lays the foundation of immune system. This is high in [carbohydrates](#), [protein](#), and protective [antibodies](#) and low in [fat](#) (as human [newborns](#) may find fat difficult to digest).<sup>(1)</sup> Unfortunately, most ignorant and illiterate mothers discard colostrum for various reasons.<sup>(2)</sup> This practice is prevalent especially in rural areas. In fact, mothers believe to initiate the infants on pre lacteal feeds. The reason cited include 'for nourishment', child is thirsty / hungry/ crying, to clear meconium and tradition to give.<sup>(3)</sup>

Colostrum is the first feed for laying down the base of child's good health. Child's health is one of the indicators of nation's development. In the light of above evidences the study has the following objectives (i) to assess the practice regarding colostrum and prelacteal feeds

among rural women (ii) to identify socio - demographic factors affecting colostrum feeding practice.

### **HYPOTHESIS OF THE STUDY**

In the present study, hypotheses were used to identify factors affecting colostrum feeding practice. Six hypotheses were addressed. To examine the relationship between colostrum feeding practices by women and different demographic variables null hypotheses were formulated –

*First*, literacy level of women has no effect on colostrum feeding practice. An alternative hypothesis was also formulated i.e. literacy have positive effect on colostrum feeding practice.

*Second*, type of family has no effect on colostrum feeding practice while an alternative hypothesis was type of family has positive effect on colostrum feeding practice

*Third*, working status of women has no effect on colostrum feeding practice. Whereas an alternative hypothesis was working status of women has positive effect on colostrum feeding practice

*Fourth*, place of delivery of women has no effect on colostrum feeding practice. An alternative hypothesis was also formulated i.e. institutional delivery has positive effect on colostrum feeding practice.

*Fifth*, there is no gender discrimination in colostrum feeding. An alternative hypothesis was also formulated i.e. there is gender discrimination in colostrum feeding.

*Sixth*, general awareness regarding colostrum among women has no effect on colostrum feeding practice. An alternative hypothesis was also formulated i.e. unaware women discarded their first milk.

### **MATERIAL AND METHODS**

This survey based study was conducted in Jawan block of Aligarh district, U.P. For the purpose of the study, six out of seventy eight Gram Panchayats were visited to have view on practice regarding colostrum feeding among women in the short period of three months. The Gram Panchayats were selected using stratified random sampling. Sample of three hundred young adult women who had male / female child up to age 12 months, (Fifty from each Gram Panchayat) were purposively selected as target group. Semi structured interview schedule was used during the course of study to collect the information. Colostrum feeding practice among women and prelacteal feeding were used as dependent variables in the study whereas literacy level, family type, working status of women, place of delivery, gender of baby, awareness regarding colostrum among women were considered as independent variables. The Center of Continuing Adult Education and Extension, A.M.U., Aligarh facilitated in approaching these villages. Finally, the raw data were compiled to make it suitable for statistical analysis. Percentile method along with Chi-square test at 5% level of significance and one degree of freedom were used to analyze and interpret the data.

## RESULTS AND DISCUSSION

Respondents from the study locale mainly belonged to agricultural labour. The literacy status of the women was poor as 216 (72%) were illiterate, 30 (10%) were just literate and 54 (18%) women had primary education. 186 women belonged to nuclear family and rest 114 lived in joint family. Most of the women were engaged in income generating activities. Two hundred thirty two (77.3%) women were working and 68 (22.7%) women were not working. Women were engaged mainly in agricultural activity and animal, dairy activities and Patti - work craft (handicraft embroidery done on fabric). These women have lower access to health care as only two to three percent received antenatal care and only 24 (8%) deliveries were institutional. One hundred sixty six (55.3%) women were having male and 134 (44.7%) women having female baby as their last child. Awareness level of women regarding colostrum was poor even after successfully running of ICDS and Janani Suraksha Yojana in the study locale. Only thirty seven (12.3%) women were aware about the benefits of Colostrum whereas 263 (87.7%) women were not aware about it.

Out of three hundred women, only twenty four (8%) women initiated breastfeeding within half an hour of delivery. Forty eight (16%) women initiated breastfeeding same day of their delivery. Ninety women (30%) out of three hundred initiated breastfeeding on the second day. Seventy two (24%) women started breastfeeding from third day, thirty women (10%) from fourth day and thirty six women (12%) from fifth day. Women who initiated breastfeeding on third, fourth or fifth day gave the reason that they breast feed their babies after taking first bath after delivery. Table I indicates the number of women according colostrum feeding practices and day of initiating breastfeeding. Evidence from the survey indicates that 229 (76.3%) women did not feed colostrum to their babies. They discarded their first milk on cow dung cake, grass or on ground. According to them, it is the tradition in their community and it has been followed since a long time. They thought that it is dirty milk and it is not good for newborn's health. Only 71 (23.7%) women fed colostrum to their babies. Srivastav *et al*, support the result of this study as they found in their study that *Colostrum* was discarded by 82.89% mothers.<sup>(4)</sup> This situation was more depressing in rural area of Haryana, where only 0.66% of the respondents had fed colostrum to their infants.<sup>(5)</sup> Among women who fed colostrum to their babies, had reasons for practicing it such as 24 (8%) women's delivery was performed at community health center at Jawan and J. N. Medical College; 19 (6.3%) women were aware about colostrum and fed it; 10 (3.3%) women had ASHA at the time of delivery; 35 (11.7%) women were those who did not have resources to avail cow's milk for babies. However, thirty seven women were aware about colostrum feeding but eighteen women could not practice it because of family restrictions.

**Table I: Distribution of women by Colostrum feeding practices and the day of initiation breastfeeding**

N = 300

S.No.	Day, when women started Breast feeding	Colostrum Fed		Colostrum not fed		Total	
		No.	%	No.	%	No.	%
1	Within half an hour of birth	24	8	-	00.0	24	8
2.	I Day	35	11.7	13	4.3	48	16
3.	II Day	12	4	78	26	90	30
4.	III Day	-	0.00	72	24	72	24
5.	IV Day	-	0.00	30	10	30	10
6.	V Day	-	0.00	36	12	36	12
<b>Total</b>		<b>71</b>	<b>23.7</b>	<b>229</b>	<b>76.3</b>	<b>300</b>	<b>100</b>

Risk factors for not practicing colostrum feeding were analyzed by calculating chi square. Distribution of women by colostrum discarding and different socio - demographic variables has been given in table II. On the basis of the analysis, it was found that literacy level of mothers, place of delivery and awareness regarding colostrum were significantly related with providing colostrum to the child while gender of the infant, type of family and working status of women were not found to have a significant effect.

A study from rural areas and urban slums of Maharashtra and Gujarat supports the same result as it was found in that study that general awareness of mothers and hospital delivery had positive influence on colostrum feeding while joint family system did not have any influence.<sup>(6)</sup>

Table II: Relationship of certain Variables with the Practice of Colostrum Feeding in the Study Group

N=300

Variables	Colostrum Feeding practice by women						$\chi^2$
	Colostrum not fed		Colostrum fed		Total		
	No.	%	No.	%	No.	%	
<b>Literacy level</b>							$\chi^2 - 48.9,$ $P < 0.05$
Literate	41	13.7	43	14.3	84	28	
Illiterate	188	62.7	28	9.3	216	72	
<b>Total</b>	<b>229</b>	<b>76.4</b>	<b>71</b>	<b>23.6</b>	<b>300</b>	<b>100</b>	
<b>Type of Family</b>							
Nuclear Family	148	49.3	38	12.7	186	62	$\chi^2 - 2.84,$ $P > 0.05$
Joint Family	81	27	33	11	114	38	
<b>Total</b>	<b>229</b>	<b>76.3</b>	<b>71</b>	<b>23.7</b>	<b>300</b>	<b>100</b>	
<b>Working status of women</b>							
Working	183	61	49	16.3	232	77.3	$\chi^2 - 3.76,$ $P > 0.05$
Non working	46	15.3	22	7.4	68	22.7	
<b>Total</b>	<b>229</b>	<b>76.3</b>	<b>71</b>	<b>23.7</b>	<b>300</b>	<b>100</b>	
<b>Place of Delivery</b>							
Institutional Delivery	-	00.0	24	8	24	8	$\chi^2 - 84.14,$ $P < 0.05$
Delivery at home	229	76.3	47	15.7	276	92	
<b>Total</b>	<b>229</b>	<b>76.3</b>	<b>71</b>	<b>23.7</b>	<b>300</b>	<b>100</b>	
<b>Gender of baby</b>							
Male	127	42.3	39	13	166	55.3	$\chi^2 - 0.006,$ $P > 0.05$
Female	102	34	32	10.7	134	44.7	
<b>Total</b>	<b>229</b>	<b>76.3</b>	<b>71</b>	<b>23.7</b>	<b>300</b>	<b>100</b>	
<b>Awareness regarding Colostrum among mothers</b>							
Aware	18	6	19	6.3	37	12.3	$\chi^2 - 17.91,$ $P < 0.05$
Not aware	211	70.3	52	17.4	263	87.7	
<b>Total</b>	<b>229</b>	<b>76.3</b>	<b>71</b>	<b>23.7</b>	<b>300</b>	<b>100</b>	

### **Prelacteal feeding Practices Followed by rural women**

From the present survey it has been revealed that instead of feeding colostrum, prelacteal feed was given. Two hundred seventy (90%) women followed this practice either due to ignorance or due to traditional belief. Prelacteal feed included honey, cow's milk and jaggery with water. They were given with the belief that they act as laxative and cleaning agents'. Unfortunately, the participants were not aware about chances of infection from this practice. These results agree with the study by Devdas et al, indicating that 87.9% nursing mothers gave sugar water, honey mixed with water, milk or jaggery as prelacteal feed.<sup>(2)</sup> Another study conducted in Jaipur city reported that prelacteal feeds were given to 96.6% of the infants including water, sugar/ jaggery/ azwain water, milk, honey and jaggery with ghee / oil.<sup>(3)</sup>

### **CONCLUSION**

The present study brings out a few important observations about colostrum feeding among rural women of U.P. India. It reveals that more than eighty percent of women discarded colostrum under the belief that it is dirty and started to breast feed their infants from second, third day and so on. This belief is passing from one generation to next. Young mothers believe on the elders and practice it. Literacy level of mothers, place of delivery, general awareness have impact on colostrum feeding while working status of mothers, gender of the infant and type of family have no impact on it. It is disheartening to note that in this age of information and communication, a very large number of mothers continue to administer prelacteal feeds to their infants which can be source of contamination.

### **REFERENCES:**

1. Thapa BR. Health Factors in Colostrum. Indian J Pediatr 2005; 72 (7):579-82.
2. Devdas RP, Purshottam V, Paul M. Trends in Breastfeeding practice. Ind J Nutr Dietet 1999; 36 (1):1-11.
3. Goyle Anuradha, Jain P, Vyas S et al. Colostrum and Prelacteal Feeding Practices followed by families of Pavement and Roadside Squatter Settlements. Indian J Prev Soc Med 2004; 35 (1 & 2):58–62.
4. Srivastav SP, Sharma VK, Kumar V. Breast Feeding pattern in neonates. Ind Paed. 1994; 31 (9):1079-82.
5. Punia S, Chhikara S. Sangwan S. infant feeding and weaning practices in selected cultural zones of Haryana. Ind J Nutr Dietet 1997; 34:102-5.
6. Subbulakshmi G, Udipi SA and Nirmalamma N. Feeding of Colostrum in urban and rural areas. [Indian J Pediatr](#) 1990; [57 \(2\)](#):191-6.