

Bhardwaj, N.; Hasan, Badrul S.; Zaheer, Mohammad.: Breast-Feeding and Weaning Practices- A Rural Study in Uttar Pradesh. The Journal of Family Welfare. March 1991. 39(1). p.23-29.

Breast-Feeding and Weaning Practices - A Rural Study in Uttar Pradesh

N. Bhardwaj, S. Badrul Hasan and Mohammad Zaheer

Introduction

The practice of breast-feeding is almost universal in India. Protecting, promoting and supporting breast-feed in should be the foremost aim of all the communities. Compare the body of a lactating mother to a baby food factory and we find that she is far and away the most efficient [1].

Breast-feeding is an unequalled way of providing ideal food for the healthy growth and development of all normal infants. This shows the importance of good nutrition during lactation. The first milk or colostrum is of particular value to the infant given its high content of proteins and fat-soluble vitamins, and its anti-infective properties. It is the infant's first immunizations [2]. However, many rural folk discard this precious material. Ideally, exclusive breast-feeding should be the norm for the first 4-6 months of life and homemade soft foods should then be added to the infant's diet.

Objectives

The present study was undertaken to study breast-feeding and weaning practices in a rural setting in north India with a view to strengthen breast-feeding and infant feeding practices for improving the health of infants.

Sample and Methodology

The study was conducted in four randomly selected villages of Jawan Block, District Aligarh in Western Uttar Pradesh from May 1987 to April 1989. From these villages, a total of 212 pregnant women in the last trimester were registered for the study. The women were contacted at their respective homes, and advice regarding breast-feeding practices and the benefits of colostrum feeding was given during the first contact. The importance of weaning after four to six months of breast-feeding was also explained to all the women.

The women were first contacted immediately after child-birth when information regarding breast-feeding and colostrum feeding practices was collected and

recorded in a pretested proforma. They were subsequently followed up at monthly intervals for a period of two years. Two visits in the week immediately after the delivery of the newborn were mandatory so as to record the right time for the commencement of breast feeding and to know whether the colostrum was being fed to the newborn or not. Social class was determined by Prasad's modified classification [3]. The monthly per capita income in each social class was multiplied by 4.17 on the basis of the price index of all commodities with a view to update Prasad's classification.

Results and Discussion

The majority of the 212 women (96.7 per cent) were Hindu; the rest (3.3 per cent) being Muslim. They were almost equally distributed among the three caste groups namely, high caste-33.5 per cent, backward caste-30.2 per cent, and schedule caste-36.3 per cent. Significantly, as many as 93.0 per cent were illiterate. Of the 15 who had received education, two were graduates, one each was just literate or had studied upto the intermediate level, five had received primary education, and four had attended high school. The literacy, rate of 7.1 per cent found in the present study was thus much lower than the national average for females (17.9 per cent) in rural areas and 14 per cent in Uttar Pradesh. All the women were housewives. Going out to the fields for work was their only outdoor activity.

Table 1 presents a distribution of the women by their breast feeding practices and also provides the reasons given by those who did not nurse their infants.

Table 1: Distribution of women by breast-feeding practices and reasons for not breast feeding their infants

Villages	Whether breast-		Reasons for not breast-feeding			Total
	Yes	No	Failure of lactation	Death of new born	Infant did not suckle *	
Oriha	35	1	-	1	-	1 (5.5)
Nagola	74	10	1	6	3	10 (55.5)
Rampur	59	6	1	5	6	6 (33.5)
Chandokha	26	1	-	1	-	1 (5.5)
Total	194	18	2	13	3	18 (100.0)

* Infant premature, congenital defect or LSCS.

The figures in brackets denote percentages.

Table 1 indicates that as many as 91.5 per cent of the women breastfed their infants. Those (18 or 8.5 per cent) who did not had either lost their newborn (6.1 per cent), the infants did not suckle (1.5 per cent), or had been born prematurely or were small in relation to the gestation period (twins). In two cases, the women could not nurse their infants due to failure of lactation. Lactation failures are so rare as to be practically insignificant [4]. However, positive influences and support could help and negative influences could hinder the process of lactation [5].

Breast-feeding on the second day was observed in 44.3 per cent of the women, 35.5 per cent of newborn infants got breast milk after a lapse of three days, 17.5 per cent on the fourth day, of birth, and only 5 or 2.6 per cent got it a day after birth. None of the infants received breast milk on the day of birth. Almost similar observations have been reported by other authors [6] [7] in rural areas of Agra and Varanasi district of Uttar Pradesh where breast-feeding was stalled after two days postpartum in 97.2 per cent and 91.6 per cent of the cases respectively, and after three days in 26.6 per cent and 20.2 per cent cases respectively. In another study [8] breast-feeding on the same day was practically absent and given by only 3.8 per cent of the mothers; over half (53.4 per cent) initiated breast-feeding on the third day (53.4 per cent). 38.8 per cent did so on the second day.

In the present study, the majority of the women breastfed their newborn on the second or third day and none did so on the day of birth. This is a significant finding. In contrast to other studies, this study shows that delayed breast-feeding is still common and is practiced in the rural areas of Uttar Pradesh, whereas according to the latest joint WHO/UNICEF statement mothers should be helped to initiate breast-feeding within half an hour of child birth. On the other hand, a WHO report [9] states that studies have confirmed the benefit of early breast-feeding in reducing weight loss, raising blood glucose levels, lowering unconjugated bilirubin in the serum, reducing dehydration and leading to a more rapid return to birth weight.

Colostrum Feeding Practices

Though colostrum is regarded as an ideal feed for the newborn, only 25 (11.8 per cent) of the women gave colostrum to their infants following counseling. However, over four-fifths (88.2 per cent) did not give it in spite of constant efforts to motivate them to do so as shown in Table 2.

The commonest reason for not giving colostrum cited by over three-fifths (63.6 per cent) of the women was the religious belief that dropping milk on mother earth would ensure a continuous flow of milk; otherwise breast milk would dry up. Other reasons were that it was thick (12.8 per cent), unclean (11.8 per cent),

and its removal would make suckling easy for the baby (11.8 per cent) as shown in Table 2. A study conducted by DANIDA [10] in seven districts of Madhya Pradesh reported only 51.5 per cent as stating that colostrum was important; other reasons for not feeding the baby with colostrum were: dirty (25.9 per cent), harmful (23.0 per cent), baby will become ill (13 per cent) causes pain in the abdomen (3.4 per cent), too thick (2.0 per cent), and stagnant (1.4 per cent). Almost a third of the respondents did not give any reason for discarding it.

TABLE 2: Distribution of women by colostrum feeding practices and reasons for not giving colostrum to their infants

Villages	Whether fed colostrum			Reasons for not giving colostrum				Total
	Given	Not given	Total	Thick	Unclear	To make suckling easy	Religious	
Oriha	3	33	36	5	6	2	20	33 (17.5)
Nagola	12	72	84	9	10	8	45	72 (38.5)
Rampur	9	56	65	7	4	5	40	56 (30.0)
Chando kha	1	26	27	3	2	7	14	26 (14.0)
Total	25 (11.8)	187 (88.2)	212 (100.0)	24 (12.8)	22 (11.8)	22 (11.8)	119 (63.6)	187 (100.0)

Figures in brackets denote percentages.

Colostrum feeding practice in the four villages is almost similar and statistically insignificant: $X^2 2 (0.5)$ at 1 df > 3.84

An inverse relation is usually found between socioeconomic status and breast-feeding [11]. In the present study, over half of the women (53 per cent) belonged to social class IV, followed by a quarter (25.4 per cent) in social class III, a third (15.5 per cent) in social class V; only 3 (1.1 per cent) and 10 (4.7 per cent) belonged to social class I and II respectively. Thus, as many as 68.5 per cent of the women belonged to the lowest socioeconomic status. As such, prolonged breast-feeding was a regular feature observed among them, because it is the most convenient and economical way of feeding babies. On the other hand an international collaborative study [12] reported that among the rich, a large number of women in India (59 per cent) gave "no milk", or "insufficient" as the reason for not breast-feeding their babies. It has also been shown that the higher the educational status of the Indian mother, the lower is the incidence of successful lactation [L] [13], [14], [15].

In the present study, normal growth was observed in exclusively breastfed babies during the first four months of life irrespective of socioeconomic status. Studies [16] [17] [18] from India and abroad indicate that milk from low income group mothers may contain enough energy to sustain the growth of their infants for the first 4-6 months of life. Even a WHO international collaborative study [12] has shown that except for the very poor, poor lactating mothers from developing countries do not differ much from mothers of the so-called developed countries as far as the quantity and quality of breast milk is concerned. While Swedish mothers had a higher output of milk with higher fat from developing countries the latter seem to compensate to a significant extent by producing milk with high protein and lactose contents [19]. However, in a grossly undernourished mother, lactation could totally below a certain body weight [20].

All women continued breast-feeding during the period of study and also, planned to do so till the child was three to four years of age. None practiced contraception while she was breast-feeding her baby with the result only four, women conceived within the second year of breast-feeding and only two - conceived within the first year of breast-feeding. Surprisingly, no woman conceived within the first eight months of breast-feeding. This shows a definite contraceptive effect of breast-feeding for a period of 6-8 months Studies [21], [22] conducted abroad have also shown that beyond 10 months of breast-feeding, amenorrhoea continues almost as long as breast-feeding does. The longest periods of breast-feeding were found in Ecuador, Haiti, Paraguay and Peru (12 to 18 months). Thus, economic development operates upon fertility in an opposite direction through increased contraception and reduced breast-feeding. However, DHS data show a recent increase in breast-feeding in some countries.

Weaning of the infant was not done religiously after four to six months except among high caste Brahmins and Thakurs. Women belonging to scheduled and backward castes did not make any special effort to wean the child. The child was given the same family food after the eruption of the first four teeth. The concept of not giving any solid foods was mainly because the child has no teeth and it is difficult for him to chew. The women did not believe in making special semi-solid food for children like khicheri, dalia, sago, suji or rabri. It was also observed that very few children below one year of age were given any kind of solid food. A few mothers who had to go out to work in the fields also gave bottle-feeds. They complained of not being able to buy a bottle from the market because of their poor purchasing power and therefore any empty bottle was used alone, with a nipple to serve the purpose. Only women of the higher social classes who could afford artificial feeds, did so not knowing the importance of breast-feeding but trying to modernize themselves by aping people in urban areas. A gross lack of knowledge among rural women about the importance of breast-feeding was observed. They thought that they had no choice except breast-feeding because of

their poor socioeconomic status. Gopalan [23] has reported that infants given early supplementary foods, the commercial baby foods, especially the commercial baby foods, fared no better indicating that early supplementation of baby foods (with the increased risk of infection that it involves), may not be the answer. He therefore suggests that attempts must be directed to improve the lactation of the mother through nutritional supplementation and counseling rather than direct "intervention" and supplements added to the infant's diet between four and six months.

Conclusion

The importance of breast feeding lies both in its positive impact on the child's health and survival and in its inhibiting effect on ovulation and therefore on fertility. In rural areas every effort should be made to protect, promote and support the already existing practice of breast feeding specially through the health services. Improvement in nutrition during pregnancy and during lactation should be one of the aims of the services offered at the village level. Nutrition education to help mothers to wean their children at the proper time with locally available cheap foods should be encouraged. The cornerstone of any public health nutrition program for the prevention of childhood malnutrition must be the need to promote an optimal lactation pattern in the community".

References

1. Thomson A.M., Hytten, F.E and Billewicz, W.Z.: "The energy cost of human lactation", Br. J. Nutrition, 24: 565-568 (1984).
2. WHO/UNICEF: "A Joint Statement - Protecting, Promoting and Supporting Breast-feeding - The special role of maternity services, 1989."
3. Prasad, B.G.: "Changes proposed in the social, classification of Indian families - Revised on 15th April 1969", Journal of Ind. Med. Ass. 55: 198-199 (1970).
4. Gopujkar, P.V., Chaudhari, S.N., Ramaswami, M.A., Gore. M.S. and Gopalan. C.: "Infant feeding practices with special reference to the use of commercial infant foods", Scientific Report 4, Nutrition Foundation of India, 1984.
5. Jelliffe, D.B., Jelliffe, E.F.P. In Human Milk in the Modern World, Oxford University Press, London, 224-225, 1978.

6. Kalra, A., Kalra, K., and Dayal, R.S.: "Breast feeding practices in different residential economic and educational groups", *Indian Pediatrics*. 19(5): 419-426 (1982).
7. Katiyar, G.P., Aggarwal, D.K., Tripathi A.M., and Aggarwal. K.N.: "Feeding practices in Varanasi District", *Indian Pediatrics*, 18(1): 65-70 (1981).
8. Stoch M.B., Smythe, P.M., Moodse, A.D., and Bradshaw, D.: "Psychosocial outcome and CT findings after gross under nourishment during infant and 20 years development study", *Development Med. Child Neurol.*, 24: 419-421 (1982).
9. Davies, R.F.: "WHO Review of recent literature", *Time of first feeding MCH*, 85: 121-143 (1988).
10. National Institute of Health and Family Welfare: "Demographic situation and utilization of health and family welfare in Madhya Pradesh: A baseline survey report on levels of fertility, mortality family welfare services in project districts," Report of the Department of Statistics and Demography, National Institute of Health and Family Welfare, New Delhi, 1983.
11. Institute for Resource Development/Washington House: *Demographic and Health Surveys Newsletter*, Columbia, Maryland USA, Summer 1988.
12. World Health Organization: *Contemporary Patterns of Breast-feeding: Report on the WHO Collaborative Study on Breast-feeding*, WHO, Geneva, 1981.
13. Ghosh, S., Gindwani, S., Mital, S.K., and Verma R.K.: "Socio-cultural factors affecting practices in an urban community". *Indian Pediatrics*, 13:827-832 (1976).
14. Walia, B.N., Gambhir S.K., and Bhatia, U.: "Breast-feeding and weaning practices in an urban population", *Indian Pediatrics*, 11: 133-137 (1974).
15. Chowdhary, M., Dutta, N., Sarkar, A., and Dey B.: "Breast-feeding by urban mothers", *JIMA*, 70:221-224 (1978).
16. Das, D., Dhano, J., and Cowan, B.: "Letting them live", *Future*, 4: 49-50 (1982).

17. Gopalan C: "Studies on lactation in poor Indian communities", *Journal Trop. Pediatrics*, 4: 37-39 (1958).
18. Marine P.C.: "Letter to Editor", *Lancet*, 1: 232, 1984.
19. World Health organization: *The Quality and Quantity of Breast Milk - Report on the WHO collaborative Study on Breast-feeding*, WHO, Geneva, 1985.
20. Habicht, J.P.: "Repercussion of lactation on nutritional status of mothers and infants" In: Chanaz A. (ed.) *Proceedings of the Ninth International Congress on Nutrition*. Vol. 2, 106-114, Bable, Karger, 1975.
21. United Nations: "Fertility behavior in the context of development - Evidence from the World Fertility Survey", *Population Studies* No. 100, New York. 1987.
22. Ronald, L., and Kleinman, M.B.: "Fertility transition in Latin America". *IPPF - Medical Bulletin*, Vol. 23, No. 5, October 1989.
23. Anand, K.R.: "Inadequacy, of breast milk - A myth or reality". (Editorial). *Indian Pediatrics*, 22(11): 797-806 (1985).