



Infant and young child feeding practices in rural Belgaum: A descriptive study

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ABSTRACT

A community based, cross-sectional study was conducted during May-August 2011 to assess the infant and young child feeding (IYCF) practices in Peeranwadi village in Kinaye rural field practice area, Belgaum. It consisted of 780 households with 4,300 people. A house to house survey was conducted and all the mothers, who had at least one child between 12-23 months of age and were residing in that area for more than one year, were interviewed using systematic random sampling technique. Early initiation of breastfeeding was 64.89% and exclusive breastfeeding for six months was 65.95%. Infants who received weaning foods at the age of six months was 65.95%, however 15.95% of infants had not received weaning food even at 23 months of age.

Keywords: Infant and young child, Breastfeeding, Weaning, Prolactal feeds

INTRODUCTION

Infant feeding practices comprises of breast feeding and complimentary feeding which directly affects the nutritional status of children under two years of age and ultimately has an impact on child survival. Breast milk is the ideal food for infants. Antibodies present in the breast milk play a protective role against several illnesses in the childhood and supports the infants' immune system.¹² Breastfeeding in infants helps to reduce the risk of several acute infections including diarrhea and pneumonia, as well as promotes the overall development of the child.¹

Poor breast feeding practices are still widely prevalent worldwide. Improper breastfeeding practices still account for deaths of 1.4 million children less than five years of age. India houses a large share of world's malnourished children, owing largely to faulty breast feeding and weaning practices. Poverty, unsanitary conditions, lack of education and poor rearing practices are some of the major contributory factors.² According to National

Family Health Survey-3 (NFHS-3) data, every year about 26 million babies are delivered in India, out of which 20 million are not able to receive exclusive breastfeeding for the first six months. NFHS-3 reported exclusive breastfeeding rate of 46.3% at five months after child birth and the initiation of breastfeeding within one hour of birth was 24.5%.³

World Health Organization (W.H.O.) recommends exclusively breast feeding for infants for at least first six months of life. It has been estimated that infants, who are not breastfed during the first month of life, are 25 times more prone to death than infants who are exclusively breastfed. Optimal infant and young child feeding means that mothers should start to breastfeed within half an hour of birth and continue exclusively for the first six months till two years, together with nutritionally adequate, safe and age appropriate complementary feeding. Improving

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infant and young child feeding practices in children 0-23 months of age is critical to improved nutrition, health and development of children. One of the ways to effectively reduce the growing under-five mortality rate is the timely introduction of complementary feeding.¹

Community-based studies are essential to obtain a clear understanding of the factors that are responsible for such practices and to develop measures to reduce such faulty practices. A community-based cross-sectional survey was undertaken to assess infant and young child feeding practices during the period of May to August, 2011 in Peeranwadi village in Kinaye Primary Health Centre area of Belgaum district.

METHODOLOGY

A community based cross sectional study was conducted for a period of four months (May-August 2011). Data was collected from mothers' of children aged 12-23 months residing in Peeranwadi village of Kinaye Primary Health Centre, which is one of the Rural Field Practice areas of Department of Community Medicine, J.N. Medical College, Belgaum. It consists of 780 households with a population of about 4,300. A house to house survey

was conducted and all the mothers who had at least one child between 12-23 months of age and were residing in that area for more than one year were interviewed. The purpose of the study was explained to them in detail in the vernacular language and written informed consent was obtained. Every third house was visited using systematic random sampling and total of 260 houses were visited. Two more follow up visits were made to the same households, if the mothers were absent at first visit. Total of 94 mothers with a child between 12-23 months of age were interviewed. Socio-demographic variables were the age & educational status of mother and age & gender of the child. The socioeconomic status was recorded as per modified B.G. Prasad's classification.⁴ Approval was obtained from the Institutional Ethical Committee for Human Subjects' Research. Statistical analysis was done using percentages and chi square test.

RESULTS

Among the 94 children, 50% (47) of them belonged to age group of 12-15 months. More than half 52.12% (49) of the mothers' were in the age group of 18-23 years. 39.36% (37) of study participants had studied up to 10 years. Majority (84.04%) of them were Hindus.

Table 1 Age and gender distribution of children

Age of the child in months	Males		Females		Total	
	No	%	No	%	No.	%
12-15	19	41.30	28	58.33	47	50.00*
15-18	6	13.04	6	12.50	12	12.76
18-21	13	28.26	5	10.42	18	19.14
21-24	8	17.30	9	18.75	17	18.10
Total	46	100.0	48	100.0	94	100.0

All the mothers in the study population were found to be either housewives or unemployed. All mothers were practicing breast feeding, out of which 65.95% of mothers practiced exclusive breast feeding for first

six months. 3.2% of Mothers' practiced bottle feeding. 4% children received nutritional supplements (like vitamins and mineral supplements).



Table 2 Socio-demographic variables of study participants

	Socio-demographic variables	Number	Percentage
1.	Age of the woman in years		
	18-24	49	52.1*
	24-30	40	42.6
	30-36	04	4.3
	36-42	01	1.0
	Total	94	100.0
2.	Religion		
	Hindu	79	84.0*
	Muslim	14	14.9
	Others	1	1.1
	Total	94	100.0
3.	Socio-economic status		
	Class I	40	42.6
	Class II	44	46.8*
	Class IV	08	8.5
	Class V	02	2.1
	Total	94	100.0
4.	Educational status		
	Illiterate	5	5.3
	1-5 years	26	27.6
	6-10 years	37	39.4*
	11-12/ Diploma	22	23.4
	Graduation	04	4.3
	Total	94	100.0
5.	Type of Family		
	Nuclear	65	69.1*
	Joint	29	30.9
	Total	94	100.0



Table 3 Distribution based on the age at which weaning was initiated for their children

Age of the child in months at starting of weaning	Frequency	Percentage
> 6	62	66.0*
6-12	10	10.6
12-18	7	7.4
18-24	15	16.0
Total	94	100.0

In our study, 64.87% (61) of the mothers' initiated breast feeding within four hours of birth. 51.06% of

the mothers' had given pre-lacteal feeds, out of which majority 81.25% (39) had Given *Gutti* (homemade paste).

Table 4 Distribution of study participants based on type of weaning food given

Type of weaning food	No. of mothers who gave	Percentage
a) Solid Food		
Mixed diet	45	72.5*
Plain Rice	6	9.7
Fruits	3	4.8
Biscuits	6	9.7
Roti	2	3.2
Total	62	100
b) Liquid Food	No. of mothers who gave	Percentage
More than one type	1	1.1
Plain water	42	46.1
Instant formula	48	52.8*
Total	91	100
c) Semi-solid Food	No. of times given	Percentage
Commercial food	6	19.4
Rice (Bhaat)	19	61.2*
Porridge	6	19.4
Total	31	100.0



We found association between the age of initiation of weaning food and the weight for age. It was observed that those children in whom weaning foods started later than six months of age or not at all, had lower weight for age, compared to those children in whom weaning practices were started at six months (Table

6). Some of the rearing practices observed in our study participants were 47.87% (45) of mothers put *kajal* (black paste) on their children's eyelids and 51.06% (48) mothers practiced putting oil in their children's ears.

Table 5 Association between initiation of weaning and weight for age

Age at which weaning was started	Weight for age				
	> 80	71-80	61-70	51-60	< 50
At 6 months	2 (25)	4 (50)	2 (25)	0	8
7-12 months	24(33.8)	36 (50.7)	9 (12.7)	2 (2.8)	71
13-18 months	8 (50)	3 (18.8)	4 (25)	1 (6.2)	16
Not started > 18 months	34 (35.8)	43 (45.3)	15 (15.8)	3 (3.2)	95
Fisher's exact test p=0.192					

There was association between child rearing practices and literacy of mothers. Mothers' who were less educated, were found to be following faulty rearing practices as compared to mothers' who were educated(application of oil in the infant's ears: $\chi^2=8.491$, $p = 0.037$ & application of *kajal* over infant's eyelids: $\chi^2=10.507$, $p=0.015$).

DISCUSSION

The prevalence of exclusive breastfeeding in Peeranwadi area was 65.95% which was higher compared to the national level of 46% (NFHS 3), but far shorter than the 11th five year plan target of 80%.¹¹ but similar to a study conducted in rural Wardha - 61.6%⁶ and also similar to the Tamil Nadu study - 68.4%.⁹ Another study conducted in a slum in New Delhi, India showed that exclusive breast feeding rates at six months is about 46%.⁶ Our findings are higher compared to a study conducted in Bankura district of West Bengal of 57%.²

35.94% (33) of mothers initiated breastfeeding within an hour after birth, which was higher than the study conducted in rural Wardha - 22.2%⁷ and also higher than the national average of 23%. These findings are also similar to an earlier study at New Delhi, where 35% of rural mothers initiated breastfeeding one hour after birth⁷ as well as the West Bengal study - 13.6%.²

In our study, breastfeeding indicators were continued breastfeeding up to one year was 74.46%. Infants 6–8 months of age who received solid, semi-solid or soft foods during the previous day were 27.27%. Minimum meal frequency (MMF) indicator⁵ was 65.95% and reference was 48.6%.

In our present study, 51.6% mothers reported giving pre-lacteal feeds to their children due to lack of knowledge and their belief that feeding colostrums was harmful for their children. These findings were much higher than the study from West Bengal 26.7%,² but similar as compared to NFHS-3 of 57.2%.³

65.95% of infants were started weaning at six months of age. Out of these, 72.5% were given more than one type of solid or semi solid food. This was found to be higher than that reported at the National level(NFHS-3) data 44.2%,³ but similar to the West Bengal study which reported that 55.7% of infants were given solid or semi-solid food². Bottle feeding was given to 3.79% of the infants. Due to the risk of exposure to infectious agents, current WHO guidelines do not recommend the use of bottle feeding.¹



CONCLUSION

In our study, half of the participants had given prelacteal feeds to their newborns. Almost two thirds of them practiced exclusive breastfeeding for six months. Three out of five participants initiated weaning at six months of age. Half of the participants gave weaning foods like instant formula to their children. Henceforth we need to focus on educating the mothers with regard to proper weaning practices, one of the methods by which this can be achieved is through peer education. The Baby Friendly Hospital Initiative can also help to promote better weaning practices. Mothers can be counseled about proper weaning practices at the time of delivery and told about the hazards of delayed weaning and faulty weaning practices. Strengthening of MCH services can further help to achieve this goal.

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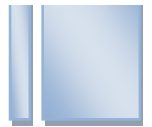
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