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Compliance and Defiance of WHO Breast Feeding Guidelines among Mothers

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Abstract **Original Research Article**

***Background*:** Exclusive breastfeeding (EBF) for the first six months of infants' lives is a cost effective intervention in saving children's lives and can avert 13 - 15% of the 9 million deaths of children under 5 years old in resource poor settings. Exclusive breastfeeding (EBF), which is defined as giving an infant only breast milk from birth up to 6 months of age, without giving other liquids or solids, not even water, with the exception of oral rehydration solution, or drops/syrups of vitamins, minerals or medicines as per World Health Organization (WHO) followed by breastfeeding along with complementary foods for up to two years of age or beyond. A survey-based study was conducted on a group of 500 mothers of children aged 2 to 3 years of age to elicit information about infant feeding practices by the use of a properly designed performa by interviewing the mothers. A structured questionnaire was used to collect socio-demographic, breastfeeding patterns and nutritional data during the interviews. Estimation on EBF was based on recall since birth. Exclusive breast feeding for 6 months was practiced by only 37% of the mothers. Initiation of breast feeding within one hour was only in 12.2% women. 46.6% new borns received prelacteal feed before initiating breast feed while 267(53.4%) were directly started on breast feeds without giving any prelacteal feed. The prevalence of EBF in our study is low. Strategies to target beliefs that breast milk is insufficient for growth need to be strengthened in the community. There is gap between the knowledge and what they practise. Furthermore opportunity to increase EBF training during ante and postnatal visits for women should be enhanced.

Keywords: Exclusive breastfeeding, Infant formula, Pre-lacteal feeds, complementary food.

INTRODUCTION

Breast feeding is an unequalled way of providing ideal food for healthy growth and development of infants, with important implications for health of mothers. Evidence has shown that on population basis, exclusive breast feeding for 6 months is the optimal way of feeding infants. Thereafter infants should receive complementary foods with continued breast feeding up to 2 years or beyond. Initiation of breastfeeding within an hour of birth is the most vital step towards reducing the infant mortality. So to reduce infant mortality and ill health WHO recommends that mothers should first provide milk to their infants within one hour of birth referred to as "early initiation of breastfeeding [1]". The pre lacteal feeds to be discouraged. This ensures that the infant receives colostrum (first milk) which is rich in protective factors [2]. Poor knowledge and improper practices of breastfeeding such as introduction of pre-lacteal foods, rejection of colostrum, delayed initiation of breastfeeding, water intake during early months, and late complementary feeding, are often significantly increasing the risk of morbidity and mortality among children.

So there was a need for a study to be conducted to assess the awareness about the WHO guidelines among people of Punjab and up to what extent these guidelines are being followed. Hence this study was planned.

MATERIAL AND METHODS

A survey-based observational study was conducted on a group of 500 mothers (from January 2015 to January 2016) to elicit information about infant feeding practices by the use of a properly designed proforma by interviewing the mothers. The study was conducted on outdoor and indoor basis in Department of Pediatrics at Dayanand Medical College and Hospital Ludhiana. A face-to-face interview using a pre-tested pre-coded structured questionnaire was conducted from the eligible mothers.

In this study, exclusive breastfeeding was defined as the infant having received only breast milk from the mother (either directly from the breast or expressed) and no other liquids or solids with the exception of drops or syrups consisting of vitamins, mineral supplements, or medicines.

In addition, the sampling was based on the following inclusion and exclusion criteria.

Inclusion criteria

- Mothers of children aged 2 to 3 years who were born with more than 34 weeks of gestation.

Exclusion criteria:

- Mothers who could not recall the appropriate information.
- Mothers who are not willing to participate in the study.

Number of cases

Five hundred mothers of children aged 2-3 years coming on outdoor and indoor basis in the Department of Pediatrics at Dayanand Medical College and Hospital was the sample of the study

Comparison between categorical data was performed using Chi square test. Statistical analysis was performed with the aid of the SPSS computer program (version 17 windows)

RESULTS

Out of 500 subjects 172 (34.4%) were female children and 328 (65.6%) were male children. 140 children were of rural residence and 360 were of urban locality. Majority of the mothers included in the study i.e. 430 (86%) were not working and the remaining 70 (14%) were working. Out of 500 mothers, 451 (90.2) were booked pregnancies and were on regular follow ups while 49 (9.8%) were unbooked.

There were only 61 (12.2%) mothers who initiated breast feeding within one hour of birth of newborn. As shown in table 1, in majority (87.2%) of subjects, mothers were responsible for not initiating breast feeding within one hour of birth, followed by newborns in 34 (7.7%) of cases. 22 (5%) mothers didn't start breast feeding within one hour due to some myths in the family

Table-1: Reasons of non-initiation of breast feeding

Reason	Frequency	Percent
Maternal	383	87.2
Neonatal	34	7.7
Others	22	5
Total	439	100.0

Table-2: Type of delivery and time of initiation of breast feeding

Type of delivery	Breast feeding within 1hour or not				Total	p-value
	Within 1 hour		More than 1 hour			
LSCS	10	4.8%	200	95.2%	210	0.000
Normal	51	17.6%	239	82.4%	290	
Total	61	12.2%	439	87.8%	500	

Table 2 highlights the incidence of time of initiation of breast feeding in relation to type of delivery. 17.6% of the babies born by normal delivery were put on breastfeed within one hour of birth while only 4.8% of the mothers who delivered by LSCS began to breast feed within one hour post delivery. The results were statistically significant.

Table 3 shows, out of 500 children 233 (46.6%) were given prelacteal feed before initiating breast feed while 267(53.4%) were directly started on breast feeds without giving any prelacteal feed. Figure 1 shows, out of 233 children who received prelacteal feed, majority 186 (79.8%) were given honey or honey mixed with milk or milk other than breast milk, followed by jaggery in 29 (6.3%) newborns. Few of them received amrit 7 (3%), janam gutti 11(4.7%) as prelacteal feed.

Table-3: Distribution of children according to prelacteal feed

Prelacteal feed	Frequency	Percent
No	267	53.4
Yes	233	46.6
Total	500	100.0

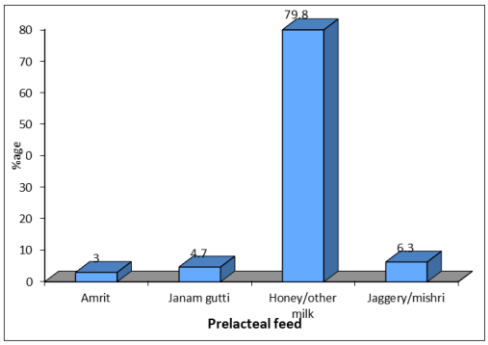

Fig-1

Percentage of giving prelacteal feed among the hospital and home deliveries is shown in the table 4. Tendency of giving Prelacteal feed was observed to be high in home deliveries as compared to those who were delivered in the hospital.

The tradition of giving prelacteal feed is more (55.7%) among the rural families as compared to the urban families (43.1%). The p value 0.007 done using chi square test showed statistical difference between the two groups.

Table-4: Distribution of place of delivery and area of residence with prelacteal feed

Place of delivery	Prelacteal feed				Total	p-value
	No		Yes			
Hospital	256	54.9%	210	45.1%	466	0.009
Home	11	32.4%	23	67.6%	34	
Total	267	53.4%	233	46.6%	500	
Locality	**Prelacteal feed**				**Total**	**p-value**
	No		**Yes**			
Rural	62	44.3%	78	55.7%	140	0.007
Urban	205	56.9%	155	43.1%	360	
Total	267	53.4%	233	46.6%	500	

In this study only 185 (37%) of mothers continued to exclusively breast feed their child till 6 months of age, while 112 (22.4%) subjects had been exclusively breast fed from zero to 2 months of age and 203 (40.6%) were exclusively breast fed from 3 to 5 months.

Table-5: Distribution of children according to duration of exclusive breast feeding

Duration (months)	Frequency	Percent
0-2	112	22.4
3-5	203	40.6
6	185	37
Total	500	100.0

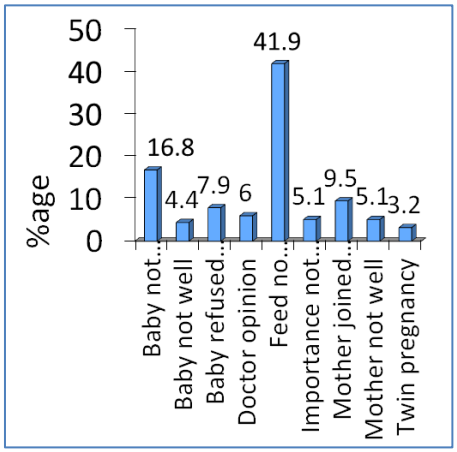

Fig-2

Reasons for not exclusively breast feeding the baby for 6 months are shown in this figure

Table-6: Distribution of children according to total duration of breast feeding

Total duration of breast feeding (months)	Frequency	Percent
less than 6	52	10.4
6-11	55	11.0
12-23	172	34.4
24 or More than 24	221	44.2
Total	500	100.0

Table 6 shows, out of 500 children 221 (44.2%) were continued with the breast feeding along with complementary feeding upto 2 years or beyond while 172 (34.4%) continued between one and 2 years followed by 55 (11%) who stopped breast feeding between 6 and 12 months and 52 (10.4%) continued for less than 6 months.

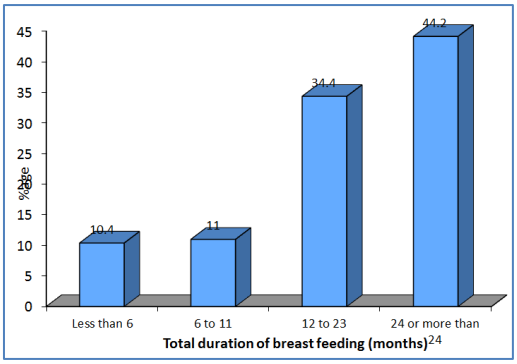

Fig-3

Table-7: Maternal occupation and total duration of breast feeding

Occupation of mother	Total Duration of breast feeding (months)								Total	p-value
	less than 6		6-11		12-23		More than 24			
Non-working	37	8.6%	45	10.5%	149	34.7%	199	46.3%	430	0.004
Working	15	21.4%	10	14.3%	23	32.9%	22	31.4%	70	
Total	52	10.4%	55	11.0%	172	34.4%	221	44.2%	500	

Locality	Total Duration of breast feeding (months)								Total	p-value
	less than 6		6-11		12-23		More than 24			
Rural	14	10.0%	12	8.6%	35	25.0%	79	56.4%	140	0.005
Urban	38	10.6%	43	11.9%	137	38.1%	142	39.4%	360	
Total	52	10.4%	55	11.0%	172	34.4%	221	44.2%	500	

This table shows occupation of the mother has effect on the duration of breast feeding. Mothers, who are working, stop breast feeding their child earlier as compared to their counterpart mothers who stay at home. 46.6% of the non working mothers continued to breast feed their child along with complementary food upto age of 2 years or beyond followed by 34.7% mothers between the age group of 1-2 years. Only 31.4% of the working mothers have fed their child beyond 2 years. The p value showed significant difference between two groups. It was also observed that rural mothers have higher tendency for prolonged duration of breast feeding as shown in the table.

DISCUSSION

The superiority of breast milk (BM) over any other milk nourishment of the human newborn and infant can hardly be challenged, and over the years it has become more and more apparent that it is the most ideal, safe and complete food that a mother can provide for her newborn.

Maximum number of mothers who were interviewed were of age group 24-29 years (68.45%), followed by the age group 19-24 years (19.8%) while 11.8% were of the age group more than 30 years. The mean age of mother in the study was 26.5 years. A similar pattern of age distribution was found in the study done by Kulkarni *et al*. [3]. In that study 68% of the mothers were of the age group 20-28 years, and 34% were of 29 or more age.

The current study showed that very few participants (12.2%) started to breastfeed immediately or within one hour after birth compared to 87.8% mothers who initiated breastfeeding later than 1 hour. A similar study conducted by Motee *et al*. [4] in 500 Mauritius mothers showed that only 27.2%of the mothers started to breastfeed within one hour after birth of the newborn.

Timely initiation of breast feeding was more in mothers who delivered vaginally, whose newborns had no post natal illness and were healthy. In majority of the patients reason for not initiating the breast feeding earlier was mothers themselves who were delivered by caesarean section, weakness followed by newborn that was separated from mother due to post natal illness, or refused feed.

Very few mothers did not initiate breast feeding due to some traditions in the family which they had to follow before putting the baby to breast. Some of them were surrounded by family members & relatives so were feeling hitch & shyness and in some cases the obstetrician and Health caretaker told them to take rest. There is need to stress on supporting the mother for initiation of breastfeeding immediately after birth.

In our study, 46.6% received prelacteal feed before initiating breast feed while 267(53.4%) directly started on breast feeds without giving any prelacteal feed. By far, the most common prelacteal liquids were milk other than breast milk (formula feed or animal milk) or honey, or honey mixed with milk (79.8%) which is a prevalent practice and needs to be addressed. As per NFHS 3 [5], 62.9% of the newborns in Punjab received a prelacteal feed. This survey also revealed that home deliveries conducted by dai or health

attendant were more prone to give prelacteal feed to the newborn as compared to those delivered in a hospital.

In our study only 37% of the mothers actually practiced exclusive breast feeding for 6 months. It was attributed to various maternal and child factors. The rest of the mothers started giving some formula feeds or animal milk before 6 months and they did not stick to the exclusive breast feeding.

The proportion of infants under six months who were being exclusively breastfed was 22.8% in a study [6]. In a similar study done among women in North Eastern Tanzania [7], it was found that prevalence of exclusive breast feeding among women of reproductive age was low (24.1%). A community based cross sectional study conducted in Kigoma region *et al*.[8] showed that the proportion of children who were exclusively breastfed for 6 months was 58%. The prevalence of exclusive breastfeeding among mothers with infants aged between one and six months was 43.1% in the study conducted by Leong *et al.* in Malaysia [11].

The prevalence of exclusive breast feeding in our study is low. Strategies to target beliefs that breast milk is insufficient for growth need to be strengthened in the community. Furthermore opportunity to increase breast feeding training during ante and postnatal visits for women should be enhanced

It is important that breastfeeding is continued for two years or more because breast milk provides useful amounts of energy, good quality protein and other nutrients. With regard to the occupation of the mothers, it has been observed that employed mothers would normally stop nursing their infants within 2 years. Generally housewives have unlimited time available to feed their infants while the employed mothers can only breastfeed their infant as long as they are on maternity leave. Another study in Malaysia [11] reported that facility at work place such as giving flexible time at work place to express breast milk helps in maintaining lactation. Other investigators also observed that women having professional jobs especially in the urban area stop breastfeeding earlier than the recommended duration because they have reduced access to their children.

CONCLUSION

Data on breastfeeding indicators in our study suggest an overall unsatisfactory status. Hence, there is much scope for improvement. Both awareness and effective implementation of the same needs to be addressed and may be increased by further breastfeeding education and support. The gap between the knowledge and what they practice has to be reduced and opportunities to increase EBF training during ante and postnatal visits for women should be enhanced.

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