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Original Research Article

A Study on Impact of Literacy Level and Social Class on Initiation of Breast Feeding Practices in Bhopal District of Madhya Pradesh

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ABSTRACT

In human life literacy is one of the qualitative features and it reflects the level of development of a country especially women population. **Objectives:** The present study makes an attempt to Study the impact of literacy level, allocation of mothers according to the place and their social class on time of initiation of breast feeding. The study also focuses on social class and prelacteal feeding practices. **Results:** The study results, conveys that, illiterate mothers accounted for 66.6 percent started breastfeeding within half an hour to five hours duration when compared to 75.00 percent of literate mothers. Further, only 12.5 percent of mothers belonging to urban areas started breast feeding to their babies within half an hour duration as contrast to the 4.8 percent of the mothers from rural area. In investigating social class, Modified B. G. Prasad's Classification method was used, it shows that, in case of half-an-hour to five hour duration, 65.82 percent of mothers belong to social class (III) were found to be high when compared to other class. The results related to relationship between social class and prelacteal feeding shows that, about 78.5 percent of mothers belonging to lower socio-economic classes (IV &V) practiced giving of prelacteal feeds to their babies when compared to 0.38 percent of mothers belonging to socio-economic class-I. **Conclusion:** social classes were closely related to their level of literacy. Hence, it is significant to understand essential knowledge about new born status of feeding that health professional should acquire as part of their basic education. Hence, extensive community education is needed along with training of health functionaries on the promotion of more appropriate breast feeding practices; essential to educate mothers on early initiation of breast feeding, and avoidance of pre lacteal feeding.

Key words: Social Class, Prelacteal Literacy feeds, health, literacy and breast feeding.

INTRODUCTION

Literacy, like other novelties, instigates in urban places and diffuses subsequently into the countryside; the process of literacy begins in the town and trickles down to the village (Krishan and Shyam, 1978). This explains about the need for education in rural areas in general and breast feeding in particular. The difference in the literacy rates of the social groups owed much to the level of literacy of their females. The value and need for education

varied from one social group to another which explained the differential in their literacy rates though in varying magnitude. Thus, education is one of the key efforts for socio-economic growth and development. Any social group could flourish only when its human resources had developed to the fullest extent. In a country like India, for illiterate women population, many handicaps and problems are faced during breast feeding practices in both rural and urban areas as well for this reason there is an inevitable need to create awareness and adoption of this practice. Further, India is home to 158.7 million children in the age group of 0-6 years. With nearly 20 per cent of the 0-4 years' child population of the world, India is home to the largest number of children in the world (ICDS Mission, 2012).

Breastfeeding is the customary way of offering to new born babies with the nutrients; essential for strong growth and development. Practically all mothers can breastfeed, endow with they have accurate information, and the support of their family, the health care system and society at large. Adequate nutrition instantaneous after birth of baby is essential to ensure the health, growth, and development of children to their full potential. The risk of illness increases with poor nutrition, and is accountable relatively, for one third of the estimated 9.5 million deaths that took place in 2006 in children less than 5 years of age (Black *et al* 2008). Inappropriate nutrition can have many problems, it also lead to childhood obesity which is an mounting public health problem in many developing and underdeveloped countries. Hence, exclusive breastfeeding is recommended up to 6 months of age; with continue breastfeeding along with appropriate complementary foods up to two years of age or beyond. On the other hand, poor breastfeeding and complementary feeding practices are widespread. Worldwide, it is approximated that only 34.8% of infants are exclusively breastfed for the first 6 months of life, the majority receiving some other food or fluid in the early months (WHO, 2009). Complementary foods are often nutritionally inadequate and unsafe and are often introduced too early or too late. This knowledge gap can only be build by providing better education and awareness about Breastfeeding practices, which confers short-term and long-term benefits on both child and mother (Leon-Cava *et al*,2002), apart from protecting children against a variety of acute and chronic disorders. The long-term disadvantages of not breastfeeding are increasingly recognized as important (Fewtrell, 2004 and WHO, 2007). Many Reviews of studies from developing countries reveal that, infants who are not breastfed are 6 to 10 times more likely to die in the first months of life than infants who are breastfed (WHO, 2000 and Bahl, 2005). The most common and more severe health problems are Diarrhoea (De Zoysa *et al*, 1991) and pneumonia (Bachrach *et al*, 2003) in children who are artificially fed, and are responsible for many of these deaths. Even after complementary foods have been introduced,

Therefore significant source of nutrients for new born babies is only breastfeeding. It provides about one and half of new born babies energy needs up to the age of one year, and up to one third during the second year of life. Apart from this, Breast milk has higher quality nutrients than complementary foods, and also defensive factors. It is therefore recommended that breastfeeding on demand continues with adequate complementary feeding up to 2 years or beyond (PAHO, 2002). Hence, Complementary foods need to be nutritionally adequate, safe, and appropriately fed in order to meet the new

born child's energy and nutrient needs. However, complementary feeding also depends on literacy, culture etc, which are bound by different social classes which are again loaded with problems, with foods being too dilute, not fed often enough or in too small amounts, or replacing breast milk while being of an inferior quality. Both food and feeding practices influence the quality of complementary feeding, and mothers and families need support to practise good complementary feeding.

In view of this, the present study makes an attempt to find the research gaps between the impact of literacy status, introduction of prelacteal on time of initiation of breast feeding, and place with special reference to social class.

MATERIALS AND METHODS

The present study was conducted in the Department of Paediatrics & Obstetric and Gynaecology, (Postnatal Wards), Gandhi Medical College, Bhopal (Tertiary Referral Hospital in Central India) - during August 2008 – September 2009. All married women in the age group of 21-36 years who have given birth to new babies born both by normal delivery as well as caesarean section were included in the study. A total of 500 cases were interviewed using a purposive sampling method with help of structured questionnaire including time of initiation of breast feeding after delivery, prelacteal feeding practices adopted, awareness of importance of breast feeding and their source of information, and other basic information related to study were obtained. To study social class in the study area Modified B. G. Prasad's Classification was used and its details are presented in Annexure-I. Further, the collected information was coded and analyzed using SPSS package (version 16.0) the output was expressed in percentage. The Pearson's chi-squared test (χ^2) was used for evaluating association between Sex of social class and prelacteal feeds, literacy status and time of initiation of breast feeding variables. 'P' value < 0.05 was considered statistically significant.

RESULT AND DISCUSSION

The results on literacy status and time of initiation of breast feeding study are presented in the Table.1and Figure.1, which convey that, among 500 cases, only 120 cases (24 percent) of Mothers were illiterate and about 380 cases (76 percent) of Mothers were literate. Among these further analysis reveals that, illiterate mothers accounted for 66.6 percent started breastfeeding within half an hour to five hours duration when compared to 75.00 percent of literate mothers. It was appealing to note that, the time of initiation of Breastfeeding was earlier with the literate mothers compared to illiterate mothers. This is because of the probably illiterate mothers are also socially backward. So, they have no other option but to breastfeed. Most of the mothers were not clear and not aware about the ideal time for initiation of breastfeeding. Hence, breastfeeding practices are to need to be cultured to illiterate women's for better growth of new born babies. The results also revealed that, there was significant correlation between time of initiation and literacy status of the mothers (P > 0.05). The results obtained are conformity with Pandit et al (1994).

TABLE.1. DISTRIBUTION OF MOTHERS ACCORDING TO THE LITERACY STATUS AND TIME OF INITIATION OF BREAST FEEDING.

Time of Initiation of Breast Feeding	Illiterate		Literate	
	No.	%	No.	%
Within ½ hrs	13	10.8	48	12.6
½ hr – 5 hrs	80	66.6	285	75.0
5 hrs – 24 hrs	22	18.3	45	11.8
24 hrs – 48 hrs	4	3.3	2	0.52
48 hrs – 72 hrs	1	0.8	0	0
> 72 hrs	0	0	0	0
Total	120	100	380	100

(ϕ^2 = 18.7, df = 5, P > 0.05)

Fig.1. Distribution of Mothers according to the literacy Status and Time of Initiation of Breast Feeding

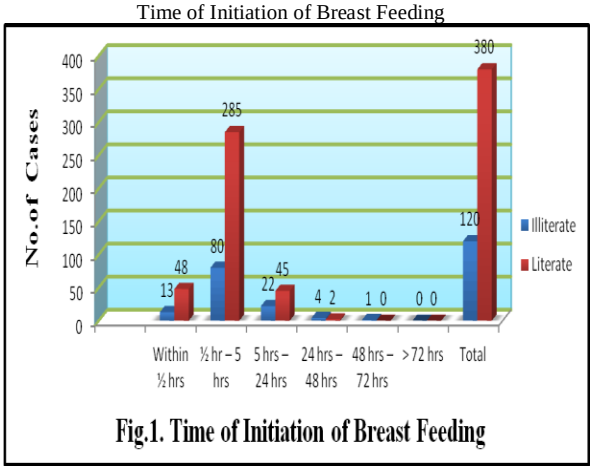

TABLE.3. DIVISION OF MOTHERS ACCORDING TO THE PLACE AND TIME OF INITIATION OF BREAST FEEDING.

Time of Initiation of Breast Feeding	Urban		Rural	
	No.	%	No.	%
Within ½ hrs	42	12.5	8	4.8
½ hr – 5 hrs	248	73.6	134	81.7
5 hrs – 24 hrs	44	13.0	21	12.8
24 hrs – 48 hrs	1	0.29	1	0.6
48 hrs – 72 hrs	1	0.29	0	0
> 72 hrs	0	0	0	0
Total	336	100	164	100

(ϕ^2 = 7.61, df = 5, P < 0.05)

TABLE.2. DISTRIBUTION BASED ON PLACE

Total Cases	Urban		Rural	
	No.	%	No.	%
500	336	67.2	164	32.8

TABLE.4. ALLOCATION OF MOTHERS ACCORDING TO THE SOCIAL CLASS AND TIME OF INITIATION OF BREAST FEEDING

Social Class	Time of Initiation of Breast Feeding											
	< ½ hr		1/2- 5 hr		5-24 hrs		24-48 hrs		48-72 hrs		> 72 hrs	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
I	0	0	1	100	0	0	0	0	0	0	0	0
II	4	6.4	37	59.6	20	32.2	1	1.6	0	0	0	0
III	28	11.81	156	65.82	46	19.4	7	2.95	0	0	0	0
IV	10	6.57	98	64.47	30	19.7	12	7.8	2	1.31	0	0
V	12	25	16	33.3	9	18.75	10	20.8	1	2.08	0	0

Fig.2. Allocation of Mothers according to Social class and Time of Initiation of Breastfeeding.

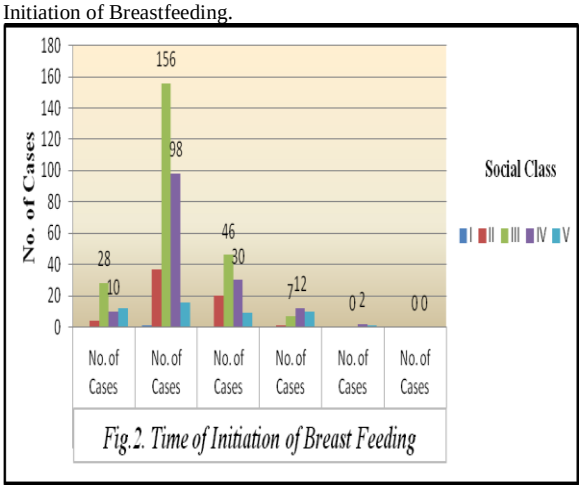

TABLE.5. ALLOCATION OF MOTHERS ACCORDING TO THE SOCIAL CLASS AND INTRODUCTION OF PRELACTEAL FEEDS

Socio-economic Class	Prelacteal feeds			
	Present		Absent	
	No.	%	No.	%
I	1	0.38	1	0.42
II	12	4.60	22	9.21
III	43	16.48	73	30.54
IV	97	37.16	67	28.03
V	108	41.38	76	31.80
Total	261	100	239	100

(ϕ^2=20.8,df=4,p>0.05).

Annexure-I

Modified B. G. Prasad's Social-Economic Classification

Social Class	Prasad's classification (1961) per capita income in Rs./month.	Modified Prasad's Classification in the study period (2009) Per capita income in Rs/month.
I	Rs.100 and above	Rs.3600 & above
II	Rs.50-99	Rs.1800-3599
III	Rs.30-49	Rs.1080-1799
IV	Rs.15-29	Rs.540-1079
V	Below Rs.15	Below Rs.540

The study focused on allocation of mothers according to the place and time of initiation of breast feeding. The outcome of the study discovered that, only 12.5 percent of mothers belonging to urban areas started breast feeding to their babies within half hour duration as contrast to the 4.8 percent of the mothers from rural area. (Table.2 and 3) This was due to urban mothers gave a scheduled breast feeding and half of these mothers were educated above the intermediate or graduate level. Where as in case of rural area mothers they follow customary planned routine like fed their infants on demand which was practically

unfamiliar in the rural area. In general, majority of mothers started breast feeding to their babies within half hour to five hours duration irrespective of urban and rural areas. Further, results also show that, there was no correlation between the place and the time of initiation of breast feeding ($P < 0.05$). Similar results were observed by Kalra, *et al.* (1982).

The study also made an attempt to analyze the blow of social class and time of initiation of breast feeding, presented in Table.4 and Figure.2. The results disclose that, more than 50 percent of mothers practiced prelacteal feeds of one sort or the other which includes Cow's milk (39.8%), Tea (27.2%), Honey (14.9%), Goat's Milk (11.11%) and Glucose water (6.89%) in the study area. Further, the results show that, in case of half-an-hour to five hour time, around 65.82 percent of mothers belong to social class (III) were found to be high followed by 19.40 per cent for 5-24 hours and 11.81 and 2.95 percent for less than half an hour and 24-48 hours respectively when compared other social classes with respect to time of initiation of breast feeding. Conversely, for the time of initiation of breast feeding for more than 72 hours was nil. The study also spotlight on social class and introduction of prelacteal from the table.5, result clearly reveals that, about 78.5 percent of mothers belonging to lower socio-economic classes (IV &V) practiced giving of prelacteal feeds to their babies when compared to 0.38 percent of mothers belonging to socio-economic class-I. The practice of introducing prelacteal feeding was noticed mainly in the social class – IV (37.16 percent) and social class – V (41.38 percent). Further, practice of prelacteal feeding was negligible in social class-I (0.38 percent). The reasons are honey and diluted cow's milk was commonly used as pre-lacteal feeds in less educated & low socio-economic class. Whereas artificial milk powder was more common in educated & high income groups. However, statistically the results shows significant correlation between socio-economic classes and introduction of prelacteal feeds ($P >0.05$). This difference was found to be statistically significant ($P> 0.05$). The results are conformity with Kulkarni *et al*(2004) and Qui Ligian *et al*(2008).

CONCLUSION

The study indicated that the time of initiation of Breast feeding was earlier with literate mothers compared to illiterate mothers. This concludes that, social classes were closely related to their level of literacy. However, to measure the extent of breast feeding practice in a population is essentially the combination of two factors like literacy and information on time of initiation of breast feeding. Hence, it is significant to understand these aspects essential knowledge about new born status of feeding that health professional should acquire as part of their basic education. It also helps in focusing on nutritional needs and feeding practices in children less than 2 years of age which is the most critical period for child nutrition after which sub-optimal growth is hard to overturn. Further, Majority of the mothers initiated breast feeding to their babies between half an hour to five hours duration irrespective of social classes. To progress this circumstances in long run, literacy levels, knowledge and social class of mothers and families need support to initiate and sustain appropriate new born feeding practices. Health care professionals can play a vital role in providing that support, through influencing decisions about feeding practices among mothers and families. Therefore, Extensive community education along with training of health functionaries on the promotion of more appropriate breast feeding practices is very much essential to educate mothers on

early initiation of breast feeding, and avoidance of pre lacteal feeding. Hence, health professionals have a significant role in adopting and bring awareness with basic knowledge and skills to give appropriate advice, counsel and help solve feeding difficulties, and know when and where to refer a mother who experiences more complex during feeding problems.

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