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Original Research Article

Perception Regarding Breastfeeding Practices Among Primary Health Care Workers and Future Mothers in Rural Area of North India - A Comparative Study

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ABSTRACT

Background: Breastfeeding is an ancient social custom with well documented three benefits. World Health Organisation and United Nation Children's Fund recommends breastfeeding should be initiated for most children immediately after birth. Breastfeeding practices can have a substantial effect on infant health and mortality in developing countries. Health workers must impart health advice to the adolescent girls, pregnant and lactating mothers regarding feeding and immunization of the newborns.
Methods: During observing the world breastfeeding week the present cross sectional study was carried out among the primary care health worker and students in the field practice area of BPS Government medical college, a rural medical institution for women in north India. Data was collected using a pre tested open ended questionnaire followed by group discussion.
Results: In the present study 313 subjects participated out of which 151(48.2%) were health workers and 162(51.8%) were student from a girl's college. Almost all health workers have the opinion that breast feeding should be initiated within first hour of birth whereas 128(79%) of the students had the same opinion. More than 90% Health workers opined that pre-lacteals should not be given to the new-borns whereas about 85% students thought of giving pre-lacteals to the new-borns, 145(96%) health workers have the opinion that breastfeeding should be continued during illness whereas 63(38.9%) students have the opinion that it should not be done.
Conclusions: Health workers have much better knowledge as compared to the future mother group, which can be improved by organizing awareness camps in routine practice.

Key words: Breastfeeding, Health workers, Future mothers

INTRODUCTION

Breastfeeding is an ancient social custom with number of benefits, out of them three benefits are well documented. First, breast milk contains the optimal combination of nutrients and is ideally suited to an infant's metabolism. Second, breastfeeding allows a mother to pass on immunities to her infant. Third, infants remain healthy who are breastfed receive less of other foods and liquids that could be contaminated and cause disease. According to World Health Organization (WHO), United Nations Children's Fund (UNICEF)

breastfeeding should be initiated for most children immediately after birth, and most infants should receive only breast milk until about six months of age. At about six months, complementary solid or mushy foods should be added to infant feeding as needed, and breastfeeding should continue, with complementary foods, up to the second birthday or beyond. [1,2] Breastfeeding practices can have a substantial effect on infant health and mortality in developing countries. Breastfeeding is almost universal in India, yet large differences have been observed among population groups within the country. Breast-feeding has declined worldwide in recent years, as a result of urbanization, marketing of infant milk formulae and maternal employment outside the home. Study in India has also shown a decline in breast-feeding trends, especially in urban areas. [3] State of Haryana is among the top states in India in terms of per capita milk availability i.e. 720gms per capita per day. [4] But when it comes to breastfeeding milk to the infants or children it lags behind. Only 22.3% of the children under 3 year breastfed within one hour of birth and 16.9% of the infants get exclusive breastfeeding in Haryana which is lower than the national average as reported in National Family Health Surveys (NFHS) shown in figure 1 and 2. [5] In rural areas most of the mother and child health care services like antenatal care**,** post natal care are being provided through our multipurpose health worker female (MPHWF), accredited social health activists (ASHA) and Anganwadi worker. They must impart health advice to the adolescent girls, pregnant and lactating mothers regarding feeding and immunization of the newborns. [6] Keeping this back ground in mind the following study was designed with an aim to know the perception of the health workers and future mother regarding breastfeeding and to know the gaps in knowledge regarding breastfeeding among health workers and future mothers.

MATERIALS AND METHODS

First week of August is observed as world breast feeding week (WBW) throughout the world to promote and create awareness regarding breast feeding. From 1st-7th August, 2013 WBW was observed in the field practice area of BPS Govt. medical college for women, Haryana, which is a rural medical institution for women in north India. We utilised this opportunity to carry out the present cross sectional study. Only those health workers and students who attended the WBW at their respective centres and consented to participate in study were included. The participating students were the future mother group and all other MPHWFs, ASHAs and Anganwadi workers were considered as health worker**.** Data was collected using pre tested and semi structured open ended questionnaire followed by group discussion. Before proceeding with distribution of the questionnaire the aim and objective was explained to the study participant and they were ensured about the anonymity of the data. The data thus collected was compiled in excel sheet and analysed using Statistical Package for the Social Sciences (SPSS; Windows version 18.0) software. Percentages & proportion, Chi square test were applied for drawing inferences and obtaining conclusions. While drawing inference and applying test the recommended practice was considered as one row and all other answers or opinions were combined as one row (i.e. df =1 in most of the table)

RESULTS

In the present study 313 subjects participated out of which 151(48.2%) were health workers and 162(51.8%) were student from a girl's college. Age of the student was ranging from 17-22 years and that of health

workers was 18-55 years. About three forth (77.2%) students belonged to nuclear families while less than half (47.6%) of the workers were from nuclear families. More than half of the study participants in each group were from back ward class.

Almost all health workers have the opinion that breast feeding should be initiated within first hour of birth whereas 128 (79%) of the students had the same opinion as shown in table 1.

Table 1: When breast feeding should be initiated

Time of initiation	Students	Health workers	Total	$\chi 2$ test
<1hr	128(79.0)	150(99.3)	278(88.8)	
2-5hrs	9(5.6)	0	9(2.8)	
5hr- 1day	5(3.1)	0	5(1.6)	$\chi 2$ =33.509 df = 1
>1day	8(4.9)	0	8(2.5)	p <0.05
After pre-lacteal feeding	2(1.2)	0	2(0.6)	
Don't know	10(6.2)	1(0.7)	11(3.5)	
Total	162(100.0)	151(100)	313(100)	

Percentages written in parenthesis

Some of the students even advocated that breast feeding initiation can be deferred for more than one day. The difference in knowledge regarding initiation of breast feeding among students and health workers found to be statistically significant. ($p<0.05$)

In the present study 304(97.1%) of the participants were in favour of feeding colostrum to the new-borns as shown in table 2.We received a varied opinion regarding pre-lacteal feeding among the study population, more than 90% Health workers opined that pre-lacteals should not be given to the new-borns whereas about 85% students thought of giving pre-lacteals to the new-borns as in table 3. Nearly half of the student i.e. 80 (49.4%) thought that pre-lacteals provide health related benefits (good for growth and developments, good for digestion, boost immunity, helps in building strong muscles,). Some of the students i.e. 15 (9.3%) beliefs giving pre-lacteals helps in production of sweet voice and child do not feel hungry. More than one fourth of the students were in favour of pre-lacteal feeding without knowing its effects as shown in table 4.Knowledge of exclusive breastfeeding was present in 138(91.4%) health workers whereas only 24(14.8%) students had the knowledge of the same. Appropriate feeding during and after illness is important to avoid weight loss and other nutrient deficiencies. The cycle of infection and malnutrition can be broken if proper feeding of infants is ensured. A breastfeed babies need more frequent breastfeeding during illness. For infants older than six months, both breastfeeding and complementary feeding should be continued during illness. [7] In the present study 145(96%) health workers have the opinion that breastfeeding should be continued during illness whereas 63(38.9%) students have the opinion that it should not be done as shown in table 5.For safe and efficient breast feeding mother should clean her hand and breast and she should sit in a comfortable position with proper attachment of the mouth of the baby to the breast. In the present study none of the participants had knowledge about all the three things, 67 (44.3%)health workers have opined one should clean hand,64(43%) have the opinion that one should clean the breast and only 15(29.4%)health workers mentioned about proper positioning and attachment. Only 51(31.5%) student said that one should clean hand before breastfeeding rest of the students had no knowledge about positioning and proper attachment during breastfeeding. Babies tend to swallow air during feeding. If burping is not done frequently then too much of swallowed air can lead to spitting up, crankiness, and

gassiness. So after every feeding or breastfeeding one should burp the child. While burping your baby, repeated gentle patting on your baby's back should do the trick, there's no need to pound hard. Appearance of symptoms often confuses the mother, she often thinks that these are due to breastfeeding and withheld the same and search for alternate. In the present study 77.5% health workers rightly said that baby should be burped after breastfeeding, only about 1/3 of students i.e. 34% had the knowledge of burping the child after feeding. When the study participants asked about what should be done when mother don't get enough milk secretion, we received a varied response from health workers as well as from the students, only about one fourth of the health workers i.e. 40 (26.5%) said the mother should try feeding the baby time and again which will help in milk production. Around one fourth of the students i.e. 39 (24%) students have the opinion that mother should consult the doctor. A significant portion from both (i.e. 17% of the students and 22.5 % of health workers) the groups advocated artificial feeding if milk secretion do not occur in a satisfactory way as shown in table 6.

Table 2: Opinion about feeding colostrum to baby

Should baby get the colostrum?	Students	Health worker	Total	$\chi 2$ test
Yes	156(96.3)	148(98)	304(97.1)	
No	5(3.1)	2(1.3)	7(2.3)	$\chi 2 = .825$ df = 1
Don't know	1(0.6)	1(0.7)	2(0.6)	
Total	162(100.0)	151(100)	313(100)	p >0.05

Percentages written in parenthesis

Table 3: Opinion about feeding pre-lacteal

Pre lacteal should be given.	Students	Health worker	Total	$\chi 2$ test
Yes	137(84.6)	12(7.9)	149(47.6)	
No	24(14.8)	138(91.4)	162(51.8)	$\chi 2 = 183.95$ df = 1
Don't know	1(.6)	1(.7)	2(.6)	
Total	162(100.0)	151(100)	313(100)	p <0.05

Percentages written in parenthesis

Table 4: Perceived benefits of pre-lacteal

Benefit	Students	Health worker	Total
Health related	80(49.4)	12(7.9)	92(29.4)
Other benefits	15(9.3)	0	15(4.8)
Don't know	43(26.5)	1(0.7)	44(14.0)
Not in favour of pre- lacteal feeding	24(14.8)	138(91.3)	162(51.7)
Total	162(100.0)	151(100.0)	313(100)

Percentages written in parenthesis

Table 5: Opinion about continuation of breast feeding during illness of the child.

Opinion	Students	Health worker	Total	$\chi 2$ test
Yes	91(56.2)	145(96)	236(75.4)	
No	63(38.9)	3(2.0)	66(21.0)	$\chi 2 = 69.779$
Don't know	8(4.9)	3(2.0)	11(3.5)	df = 1
Total	162(100.0)	151(100)	313(100)	p <0.05

Percentages written in parenthesis

Table 6: Things to do when milk secretion don't occur

Opinion	Students	Health worker	Total
Try feeding time and again	14(8.6)	40(26.5)	54(17.2)
Get advice from doctor	39(24.0)	6(3.9)	45(14.3)
Artificial feeding	28(17.2)	34(22.5)	62(19.8)
Change in mothers feeding	0	58(38.4)	58(38.4)
Don't know	84(51.8)	58(38.4)	142(45.3)
Total	162(100)	*	*

*Multiple responses

At the end in group discussion source of knowledge regarding breastfeeding among health worker was found to be the routine training and work shop given to them by the health officials.

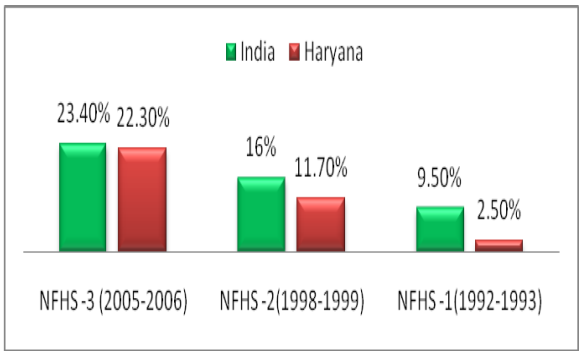

Figure 1: Bar diagram showing Children under 3 years breastfed within one hour of birth.

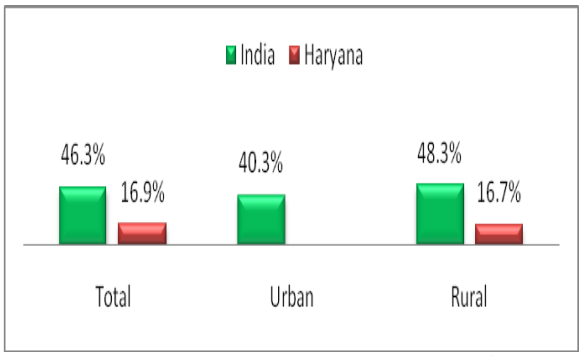

Figure 2: Bar diagram showing exclusively breastfeeding in NFHS-3

DISCUSSION

As a global public health recommendation, infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health. Thereafter, to meet their evolving nutritional needs, infants should receive safe and nutritionally adequate complementary foods while breastfeeding continues for up to two years of age or beyond. Exclusive breastfeeding from birth is possible except for a few rare medical conditions, virtually every mother can breastfeed. In addition, a growing body of recent evidence underscores the important global recommendation that breastfeeding be initiated within the first hour of birth. [8]

In the present study almost all the health workers have the opinion that breast feeding should be initiated within one hour of birth whereas one third of the students (future mothers) didn't know the correct time for initiation of breastfeeding and even some of the students have the opinion that it can be deferred even more than one day, this type of opinion among the students is largely due to the practice of pre-lacteal feeding, even by some of the specific relative of the family as ascertained in the group discussion. Colostrum is the perfect first food. It provides immune and growth factor along with perfect combination of vitamins and minerals to ensure health, vitality and growth of new born. Beliefs about colostrum vary in communities; many mothers discard colostrum, believing that it is deleterious to the child. The infant may be fed cow's milk, water, or honey during this initial, very important period for establishment of lactation. It is a common practice in various parts of India to discard the first yellowish-coloured milk "colostrum." It has been seen that this practice varies according to birth order, being the highest for the third birth order and higher for a male child than for a female child. Study in India showed that neonatal and post neonatal deaths were around 5-6 times lower in infants fed colostrum than among those not fed colostrum. [9] Present study shows almost all the study participants have the opinion that baby should get the colostrum, this might be due to the increasing level of awareness with time. Prelacteal feeds are those foods given to new-borns before breastfeeding is established or before breast milk "comes in," usually on the first day of life. Pre-lacteals include honey, *jaggery* (brown sugar from sugar cane) *ghee* (clarified butter), and *ghutti* (herbal paste). Some believe pre-lacteals are a necessary substitute for colostrum. [10-13] Other studies have also reported "insufficient milk supply" as a reason for providing pre-lacteals. [14,15] In the

present study, student participants believed that pre lacteals helps in growth and development, digestion, boost immunity, building strong muscles even some beliefs that it helps in production of sweet voice. Most of the times the pre-lacteals cause harm in terms of infection by the methods used for feeding and by the substances used for feeding. Botulism is caused by a germ which normally lives in a dormant form in soil and dust and occasionally gets into honey. If the germ gets in to a baby's intestine it can grow and produce a toxin or poison, leading to infant botulism. [16] In the present study large number of the student participants were in favour of giving pre lacteals even without knowing any perceived benefit of the same, the reason behind this is mainly the social custom followed in this part of the country. Knowledge of breastfeeding practices during illness of the children was lacking in about half of the student participants. Studies have revealed that frequent breast feeding increases the volume of breast milk, while less frequent nursing diminishes it. [17,18] Also, the pattern of frequent nursing during the early postpartum period is associated with more sustained lactation during the subsequent months. [19] Surprisingly only one fourth of the health workers in the present study have the correct knowledge of practices to be done when mothers do not get sufficient milk secretion and nearly one fifth of them advocated that mother can opt for artificial feeding in such case. In the present study, we found a significant difference between the correct knowledge of breast feeding practices among health workers and students, the health workers have much better knowledge as compared to students, the later can be improved by organizing awareness camps in routine practice.

Although we found a higher level of knowledge among the Health workers still the data shows that the breast feeding practice in this region of the country is not up to the mark. Whether health workers are imparting the knowledge in the community and whether any other factors are affecting the breastfeeding practices of the community are subject of investigation for which a large scale investigation is required

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