

Practices regarding colostrums and pre-lacteals among gadaba and konda dora tribes of vizianagaram district

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Abstract—Feeding of breast milk is the first fundamental right of the child. Some believe pre-lacteals are a necessary substitute for colostrums. The practice of giving pre-lacteal feed to baby is a traditionally accepted culture in India. A cross-sectional study was conducted on Gadaba and Konda Dora tribal populations at random from 95 tribal villages in Vizianagaram district of Andhra Pradesh. Data were collected from 300 lactating women from each tribe, age ranges between 15-45 years through in-depth interview method. The practice of discarding of colostrums (the first breast milk) is still exists among Gadaba (25.7%) than Konda Dora (20.0%). Because of the late initiation of the breast milk, the newborns were fed with pre-lacteal foods (27.3% of Gadaba and 22.7% of Konda Dora newborns). They are feeding the newborns with pre-lacteals in a most unhygienic method i.e. by using either finger or spoon or cotton. The deep-rooted traditional beliefs and misconceptions are observed in discarding of colostrums and introducing the pre-lacteals to their babies. Proper knowledge should be given to the mothers regarding the importance of colostrums and effects of pre-lacteal feedings.

Keywords—Breast milk, Colostrums, Pre-lacteals, Traditional beliefs

I. INTRODUCTION

As per the recommendation of UNICEF (2011), breast feeding should be initiated within a half-hour of birth instead of waiting several hours as is often customary. Although there is a little milk at that time, it helps to establish feeding and a close mother-child relationship, known as “bonding”. The first milk, i.e. the “colostrums” is the most suitable food for the baby immediately after birth because it contains a high concentration of protein and other nutrient to the body needs; it is also rich in anti-infective factors which protect the baby against respiratory infections and diarrhoeal diseases. Some believe pre-lacteals are a necessary substitute for colostrums. Pre-lacteal feeds are foods given to newborns before breastfeeding is established or before breast milk “comes in,” usually on the first day of life (UNICEF, 2008).

II. MATERIALS AND METHODS

The present study was conducted in a tribal area of Andhra Pradesh to assess the proportion of home deliveries, to identify the different categories of care providers and to find out the prevailing traditional practices regarding some essential components of cord care. For the present study, 600 respondents (both tribes), age ranges from 15 to 45 years from lactating women belonging to Gadaba and Konda Dora tribal women were selected at random from 95 villages of Vizianagaram District. Systematic random sampling was followed in selecting the stake-holders from the tribal areas and the statistical analysis was done by using SPSS 11.0 package.

III. RESULTS AND DISCUSSION

About 87.3% of Gadaba and 85.3% of Konda Dora newborns were initiated with mother’s milk within 2-6 hours after delivery. The mean duration of exclusive breast feeding is more among Konda Doras (7.05 months) than the infants of Gadabas (6.52). Similarly the mean duration of lactation is very lengthy among the Konda Doras i.e. 34.85 months against 24.68 months among the children of Gadaba tribe. The duration of lactation among the children of Konda Dora and Gadaba tribal groups is extending upto 24-35 months and is a common phenomenon found in many of the neighbouring tribal populations.

Nearly 26.0% of the Gadaba and 20.0% of Konda Dora women are discarding the colostrums but not in total (Table-1 and Fig-1). Nearly 23.0% of the newborns who were initiated with mother’s milk with in the first hour after birth were also deprived of 1-2 Table spoons of colostrums. If the initiation of breast milk was done with in 1 hour after birth, discarding of colostrums was to a maximum of 1-2 times. In the 7-12 hours and 12-48 hours, the frequency of discarding of colostrums was extended up to a maximum of 5 times.

The NFHS-2 (1998-99) surveyed in four states of India found that the breast feeding is a universal phenomenon among the tribal women, but they discarded the colostrums. Further the data compiled by NFHS-2 (1998-99) also gave a high incidence of discarding colostrums in both the rural and urban areas in India. Durga Rao, *et.al.*, (2006) studied the tribes of North Coastal Andhra Pradesh tribes and revealed that nearly 16.0% of mothers have discarded the colostrums before the child was fed with breast milk. Nearly 17.0% of the mothers from slum areas of Visakhapatnam (Swamy, 2009) have discarded the colostrums before the initiation of the mothers' milk. The Visakhapatnam tribals also have the practice of discarding the colostrums (42.0%) instead feeding to their newborns (Sambasiva Rao, 2008a). Further he stated that about 25.0% of mothers have discarded the colostrums 1-3 times before initiating the breast milk to their newborns. The other two studies, one on Savara of Srikakulam district (Narahari, *et.al.*, 2006) and Gadaba tribe of Vizianagaram district (Hemalatha, 2005) revealed that nearly 80.0% and 72.0% of the mothers discarded the colostrums, respectively. But very less percentage (20.0%) of mothers discarding the colostrums as reported by Nanibabu, *et.al.*, (2006) among the Koya Dora tribe of East Godavari district. The study carried out by Mudgal, *et.al.*, (1979) in Madhya Pradesh, the tribal women have not discarded the colostrums and were given to their newborns. Similarly, Pandey, *et.al.*, (1997) reported that the colostrums was not discarded among the Hill Korwa and Pando tribes of Madhya Pradesh and the tribes of Gujarat (Gopaldas and Gujral, 1995). Even the Bhumija women of Orissa (35.1%) have not discarded the colostrums as reported by Goswamy (2009).

Many reasons are responsible for the discarding of colostrums as revealed by many respondents. The main reasons for discarding the colostrums (partial) are- not good for the child (38.5% of Gadabas and 37.9% of Konda Doras), advice of elders (32.1% of Gadaba and 24.1% of Konda Doras), and traditional belief (19.2% of Gadabas and 24.1% of Konda Doras). The other reasons reported by them are not pure (8.1%), stagnant (2.2%) and heavy to digest (1.5%).

In contrary from the present study, the tribal women of Vizianagaram (Sambasiva Rao, 2008) have discarded the colostrums relatively lesser (25.0%). The rural Ghana women (74.8%) have realized the importance of colostrums and offered to their newborn; whereas 25.2% of mothers discarded the colostrums for one (47.2%) time or two times (30.5%) or three times (20.8%) before the initiation of first mothers milk. The main reasons for discarding the first milk (colostrums) given by the mothers were, they got advice from elders (42.2%), not pure (9.1%), not good for child (8.8%), stagnant (7.0%) and heavy (4.7%) (Karen, *et.al.*, 2006). Family restrictions (30.2%), followed by social customs (25.6%) were the main reasons for discarding colostrums reported by Durga Rao, *et.al.*, (2006) among the tribes of North Coastal Andhra Pradesh. Khan and Basu (1987) conducted a study among the women of un-organized sector and reported that social customs or advice from the elderly women of the family is the main reasons for the discarding of the colostrums. The tribal women of Jharkhand (Banerjee and Mishra, 2006) do not initiate the breast milk before the third day and they discard the colostrums because they believe that it causes dysentery among the newborns. The urban slum mothers of Visakhapatnam (Swamy, 2009) discarded the colostrums due to the advice of elderly women of the family, or of traditional belief and consider colostrums as impure substances. Nearly 41.5% of the tribal mothers of Visakhapatnam district (Sambasiva Rao, 2008a) felt that the colostrums were not good for the health of child, traditional belief and even the elders also advised them to discard the colostrums. The other reasons reported by them are that the colostrums were stagnant, not pure, heavy to digest and look like pus. The Bhumija tribal women of Orissa also reported the reasons for discarding the colostrums, the reasons are- unhygienic, undigestible, very thick (viscous), cheesy and not good for the baby.

The practice of offering pre-lacteals to the newborns are more in Gadaba (27.3%) than the Konda Dora tribe (22.7%) whether the initiation of breast milk to the newborns are delayed or not (Table-2). Usually many babies are fed with pre-lacteal foods. The data reveals that out of 357 newborns that were initiated with breast milk with in 1 hour after birth 10 of them (2.8%) were given pre-lacteal foods. Similarly in the subsequent intervals of delay in the initiation of breast milk, the percentage of newborns given pre-lacteals are gradually increased from 38.5% to 100.0%. In total, 25.0% of the newborns belong to both the communities were offered with pre-lacteal foods of different varieties. The most commonly offered pre-lacteal food is sugar water/sugar candy water among Gadaba (47.5%) and Konda Doras (58.8%). The next option of pre-lacteal is castor oil (37.7%) among Gadaba and Konda Doras (20.5%). The other pre-lacteals are honey (8.0), other mother's (surrogate) breast milk (5.3%) and packet milk (4.0%) (Fig-2).

The practice of pre-lacteal feeding is still predominant in both Gadaba and Konda Dora tribal newborns, mostly among the babies where initiation of breast milk was delayed and also among the newborns who were initiated mothers' milk even before 6 hours after birth. It indicates their strong traditional belief which adhere them to the practice of discarding colostrums before the initiation of breast milk. Pre-lacteal feeding also varies substantially from one community to another in all states of India. The practice of offering pre-lacteal feeds to the newborns is at minimal level in the states of Kerala (10.8%), Sikkim (12.3%) and Arunachal Pradesh (16.7%). The Pre-lacteal feeding is most common in Bihar (90.6%), Uttar Pradesh (86.0%), Rajasthan (71.6%) and Jharkhand (66.3%) NFHS-3 (2005-06). The mothers from the urban slums of Indore (Aggarwal,

et.al., 2007) feed their newborns with jaggery water or tea or honey or un-boiled water or goat/ cow milk or a traditional 'ghutti' made from honey and nutmeg. However, a study conducted by Yadav, *et.al.*, (2007) on traditional practices in newborn care of Nepal shows that colostrums was regarded as dirty milk in some communities and babies were fed with cow or goat milk immediately after birth for the popular belief that it will make the baby become more intelligent.

Majority of the Gadaba and Konda Dora tribal mothers offered either sugar water or sugar candy water or castor oil or honey or surrogate breast milk or pasteurized (commercially available) milk. In developing countries, it is often argue that separation of the newborn from mother and feeding the newborn with mothers' milk substitutes during the first day of the birth is an important factor responsible for failure of lactation.

As per the experts' advice, giving pre-lacteals in any community is considered as an unhealthy practice because the first breast milk of the mother is the best food for the newborns. The method of feeding the pre-lacteals involves many unhygienic practices. In the present study populations, they dip the cotton in the pre-lacteal items (sugar water/ castor oil/ honey/ pasteurized milk) and squeeze the food item in the mouth of newborn with the help of their fingers (Gadaba-36.3% and Konda Dora- 14.9%) and by using unsterilized table spoon (Gadaba-35.0% and Konda dora-56.7%). They use the cotton as the tool for giving the pre-lacteals (Gadaba-20.0% and Konda Dora- 10.4%), bottle (Gadaba – 3.8% and Konda Dora- 14.9%), used rubber teat (3.8% in Gadaba and 3.0% in Konda Dora) and also *uggu ginne* (traditional bowl)very rarely (Gadaba-1.3%).

Not only the pre-lacteal foods but also the method of offering the pre-lacteals to the newborns needs some attention to validate the practice as good or bad. In majority of the situations, the mothers are using either finger or the unsterilized spoon or cotton rag or rubber teat or *uggu ginne* (traditional bowl) to give pre-lacteal feedings. And all these were observed as most unhygienic which leads to the health complications especially diarrhoeal diseases among the newborns. These observations made in the present study show the affinity with some of the ORG studies undertaken in Baroda slums (Khan, 1990) as well as in the rural areas of Gujarat (ORG, 1989) and those undertaken by the Nutrition Foundation of India in Maharashtra and West Bengal (Gopujkar, *et.al.*, 1984). The use of a spoon for pre-lacteal feeding was quite common not only in Andhra Pradesh but also found in Maharashtra and West Bengal.

IV. FIGURES AND TABLES

Table-1: The practice of discarding the colostrums and the reasons behind it.

Colostrums	Gadaba		Konda Dora		Total	
	Number	%	Number	%	Number	%
Discarded	77	25.7	60	20.0	137	22.8
Not discarded	223	74.3	240	80.0	463	77.2
Number of times discarded/day						
1	24	31.2	25	41.7	49	35.8
2	30	39.0	16	26.7	46	33.6
3	22	28.6	16	28.3	39	28.5
>3	1	1.3	2	3.3	3	2.2
Reasons for discarding						
Stagnant	1	1.3	2	3.4	3	2.2
Heavy to digest	2	2.6	-	-	2	1.5
Not good for child	23	38.5	22	37.9	52	38.2
Not pure	5	6.4	6	10.3	11	8.1
Traditional belief	15	19.2	14	24.1	29	21.3
Advice of elders	25	32.1	14	24.1	39	28.7

Table-2: The type of pre-lacteals offered to the newborns by the tribal mothers

Variable	Gadaba		Konda Dora		Total	
	Number	%	Number	%	Number	%
Pre-lacteals given	82	27.3	68	22.7	150	25.0
Not given	218	72.7	232	77.3	450	75.0
Pre- lacteal items						
Sugar water/sugar candy water	39	47.5	40	58.8	79	52.6
Honey						
Other mother's breast milk	6	7.3	6	8.8	12	8.0
Castor oil	4	4.9	4	5.9	8	5.3
Pasteurized milk	31	37.7	14	20.5	45	30.1
	2	2.4	4	5.9	6	4.0

Variable	Gadaba		Konda Dora		Total	
	Number	%	Number	%	Number	%
Materials used to feed						
Spoon	28	35.0	38	56.7	66	44.9
Bottle	3	3.8	10	14.9	13	8.8
Cotton	16	20.0	7	10.4	23	15.6
Finger	29	36.3	10	14.9	39	26.5
Rubber teat	3	3.8	2	3.0	5	3.4
Uggu ginne (a kind of bowl)	1	1.3	-	-	1	0.7

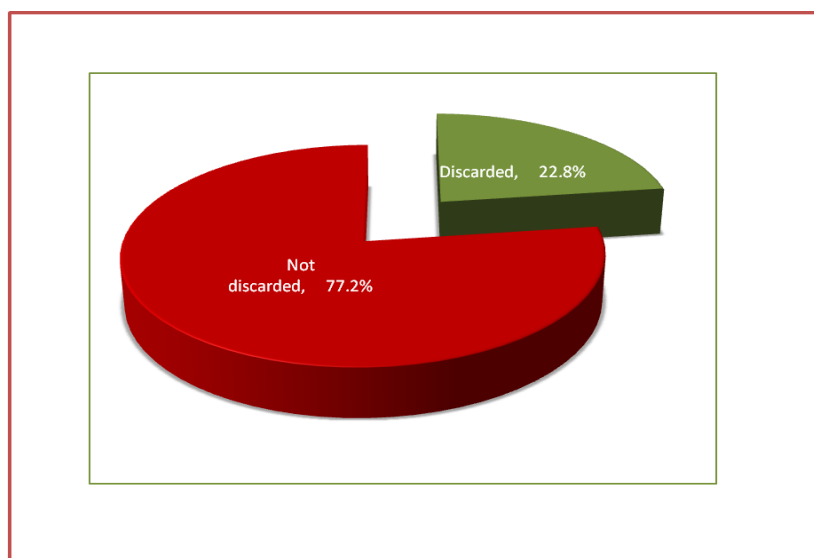


Fig No: 1 Discarding of colostrums among the tribes

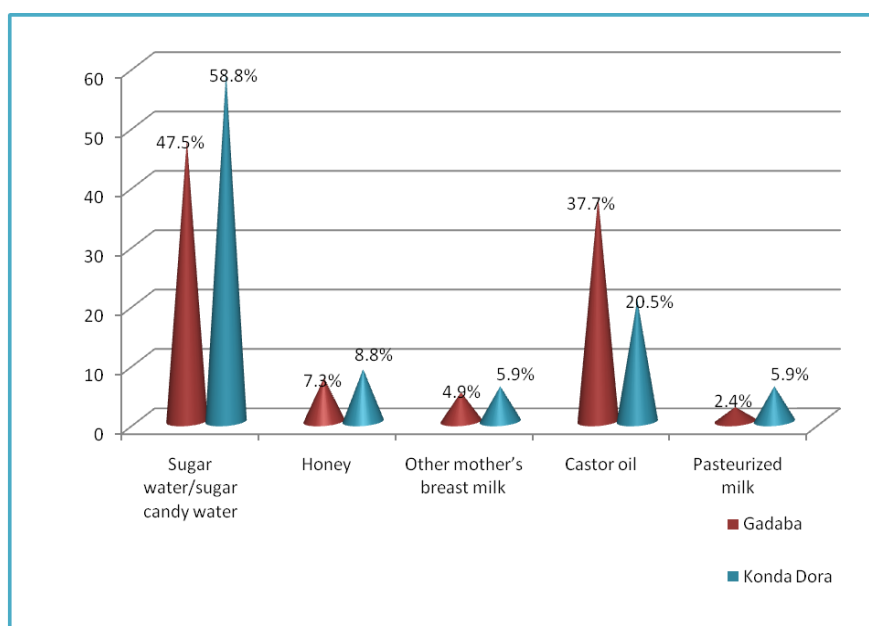


Fig No: 2 The type of pre-lacteal items offered to the newborns by the tribal mothers

V. CONCLUSION

The practice of discarding of colostrums (the first breast milk) is still exists among Gadaba (25.7%) than Konda Dora (20.0%). About 64.0% of women from both the tribes have discarded the colostrums about twice or more than 2 times They are discarding the colostrums mostly because of elders' advice and also

believed that the milk may not good for child, and consider it as impure and have strong traditional belief. Because of the late initiation of the breast milk, the newborns were fed with pre-lacteal foods (27.3% of Gadaba and 22.7% of Konda Dora newborns). Sugar candy water, castor oil, honey, surrogate mothers' breast milk and pasteurized milk are the common pre-lacteal foods offering to the newborns in both these communities. They are feeding the newborns with pre-lacteals in a most unhygienic method i.e. by using either finger or spoon or cotton. The present Gadaba and Konda Dora population is relatively better in practicing the early initiation of breast feeding and maintaining the normal span of exclusive breast feeding. The discarding of colostrums by the present respondents is also relatively low when compared to the other tribal population's studies so far.

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