

Prevailing infant feeding practices and immunization status in Girwah tehsil of Udaipur city

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■ **ABSTRACT** : A cross sectional study on 250 pre-school children (2-5years) along with their mothers was undertaken among Girwah tehsil of Udaipur city. The study aimed to assess the prevailing infant feeding practices and immunization status. Information related to infant feeding was gathered by interviewing mothers of pre-schoolers with the help of structured questionnaire. Results revealed that large amount of subjects (40.8%) received prelacteal feed. Janam gutti was most common used prelacteal feed. Breast feed was received by 100 per cent subjects and most of the mothers (54.4%) feed their children on demand. 49.2 per cent mothers initiated breast feed within 1 hour after the birth of their child, remaining 29.6 and 21.2 per cent feed after 2-5 hours and more than 5 hours. Colostrum was not known by 5.6 per cent mothers and they didn't even feed it to their newborns. Exclusive breast feed was given by 70 per cent mothers. Duration of exclusive breast feed was 3-6 months among most of the mothers (43.6%). 4.8 per cent mothers exclusively breast feed their children more than 8 months. Most of the mothers (94.8 %) breast feed during their illness. The most common age of weaning was found 4-6 months, among them 69.2 per cent preferred homemade weaning food. Most common age of giving semi solid/solid food was 6-8 months (40%) and 8-10 months (22%), while 5.2 per cent mothers didn't start weaning their infants even after the age of more than 12 months. Immunization status of 84 per cent children was found satisfactory, while 4.4 per cent children were partially immunized and 1.6 per cent didn't even have immunization card.

■ **KEY WORDS**: Infant feeding, Practices, Preschool children, Immunization, Malnutrition

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India is one among the many countries where child malnutrition is severe and also malnutrition is a major underlying cause of child mortality. While an absolute increase of 181 million in the country's population has been recorded during the decade 2001-2011, there is a reduction of 5.05 millions in the population of children aged 0-6 years during this period (Government of India,

2012). Every time an innocent child suffers the curse of malnutrition; the responsibility goes to the mother, the family and to the community due to their faulty or no knowledge regarding proper infant feeding (Chatterjee and Saha, 2008). According to WHO and UNICEF, poor infant feeding practices and their consequences are one of the world's major problem and a serious obstacle

to social and economic development. Infant feeding comprises of exclusive breastfeeding for six months followed by sequential addition of semisolid and solid foods to complement (not replace) breast milk, till the child is gradually able to eat normal family food (Gupte, 2012). Common vaccine preventable diseases and faulty feeding practices culminating into malnutrition are associated with profound growth retardation. At present every 6th second a child dies or becomes disabled from a disease which could have been prevented by immunization of the child. It has clearly defined target groups; it can be delivered effectively through outreach activities; and vaccination does not require any major lifestyle change (WHO, 2016). Although efforts has been made since long, yet infant feeding practices are far from satisfactory in many countries (Anand, 2002). There seems to have been very little improvement in the knowledge and practices of mothers on common child health matters over the years inspite of the many years of girls education in the country (Ibrahim, 2010). Despite global efforts for improving maternal and child health and specific efforts like ICDS (Integrated Child Development Services), malnutrition in children remains a significant problem in India. It is important to explore the prevailing infant feeding practise and immunization status of children in Rajasthan, as under five mortality rate is very high in this state and the impact of infant feeding on nutritional status is well known.

■ RESEARCH METHODS

Material :

- Structured questionnaire: Self developed, keeping in view the information to be collected for the study
- Immunization card (Mamta card) developed by Women and child development ministry and Health and family welfare ministry with the help of NIPCCID and UNICEFF.

Methods:

- Type of study: Cross sectional study

- Locale: Girwah tehsil, Udaipur city
- Period of study: Feb. 2015 to April, 2016.
- Study population: 250 Preschool children with their mothers (house wives from middle income group with the family annual income between 2 to 5 lac).

Procedure:

Study was conducted in Girwa Tehsil of Udaipur city. 250 Preschool children with their mothers were selected purposively from 10 villages of Girwah tehsil (Baleecha, Bargaon, Bedla, Bedwas, Loyra, Saweena khera, Sukher, Sisarma, Teetardi, Umarda) with the equal representation from each village by using door to door contact and snow ball sampling method. Mother of the preschool children was interviewed using structured questionnaire and information related to inant feeding and immunization status was collected.

■ RESEARCH FINDINGS AND DISCUSSION

The result of the study is presented in following tables:

Distribution of respondents according to age and sex:

In the study population of 250 children, there were equal representation of male (50%) and female children (50%) (Table 1).

Information about child birth weight:

Birth weight was not available in case of 9 children because the mother could not recall the birth weights nor could produce any documents from which the data could be collected. 18.8 per cent children of the study population were born with low birth weight (Table 2).

Information about child's feed:

In present study 40.8 per cent of new borne received prelacteal feeds. Diluted milk, formula milk, jageery water, Jannam gutti and honey were the common prelacteal feeds used. The practice of prelacteal feeding

Age (Months)	Male		Female		Total percentage
	Number	Percentage	Number	Percentage	
24- 36	46	18.4	60	24	42.4
37-48	41	16.4	29	11.6	28
49-60	38	15.2	36	14.41	29.6
Total	125	50	125	50	100

Table 2 : Information about child birth weight

Characteristic	Frequency	Per cent
Birth weight		
<2.5	47	18.8
2.5 - 3.5	173	69.2
3.6- 4.5	21	8.4
Don't know	9	3.6

Table 3 : Information about child's feed

Characteristics	Frequency	Per cent
Prelacteal feed		
Yes	102	40.8
No	148	59.2
Name of prelacteal feed		
Diluted milk	14	5.6
Formula milk	16	6.4
Jaggery water	26	10.4
Janam gutti	38	15.2
Honey	8	3.2

is considered as risk indicator for infant mortality rate especially during neonatal period (Prasad, 2015) (Table 3).

Characteristics	Frequency	Per cent
Feed breast milk		
Yes	250	100
No	0	0
Feed		
Demand	136	54.4
Fix interval	114	45.6
Time duration of breast feed initiation after birth (hr.)		
0-1	123	49.2
2-5	74	29.6
>5	53	21.2
Know colostrums		
Yes	236	94.4
No	14	5.6
Gave colostrums		
Yes	236	94.4
No	14	5.6
Exclusive breast feed		
Yes	175	70
No	75	30
Duration of exclusive breast feed (months)		
0-3	34	13.6
3 - 6	109	43.6
6 - 8	20	8
> 8	12	4.8
Feed during mother's illness		
Discontinue	8	3.2
Less normal	5	2
Continue normally	237	94.8

100 per cent subjects were breast feed. Among them 54.4 per cent mother's breast feed their children on demand and remaining 45.6 at fix interval.

Maximum of mothers (49.2%) initiate breast feed within 1 hour of birth of their children. whereas 29.6 and 21.2 per cent mothers breast feed after 2 to 5 and more than 5 hours of child's birth. Breastfeeding within one hour of birth protects the child from infections and reduces the risk of death by upto 22 per cent in the first month of life. Skin to skin contact with the mother through breastfeeding fosters mother infant bonding and keeps the child warm, reducing the child's risk of during of cold (hypothermia), (UNICEF India, 2007).

Colostrums was known and given by 94.4 per cent mothers in study remaining 5.6 per cent mothers didn't feed colostrums to their child. Among the subjects studied 70 per cent were exclusively breast feed and remaining 30 per cent were not.

Duration of exclusive breast feed was 3-6 months for 43.6 per cent subjects, 0-3 months, 6-8 months and more than 8 months for 13.6, 8 and 4.8 per cent subjects, respectively.

Maximum mothers (94.8 %) continued breast feeding during their illness whereas 3.2 per cent discontinued and 2 per cent breastfeed less during illness.

Information related to weaning:

In present study 45.6 per cent children were weaned at the right age that is 4-6 months. Among remaining 23.6 per cent children were weaned after the age of 8 months. Whereas 13.2 per cent started weaning before the age of 4 months (Table 4).

Commercial weaning food was less popular (30.8 %) among subjects studied as 69.2 per cent mothers gave homemade weaning food to their children.

In the present study 22.4 per cent children were given top milk at the age of 4 to 6 months. Remaining 14.4 per cent gave top milk to their children before the age of 4 months.

As per doctor's advice the right time of giving top milk is after the age of 12 months so that baby can easily digest as digestive system is developed by that time. In present study 24 per cent, 10.4 per cent, 18.4 per cent and 7.2 per cent children were given top milk at the age of 6-8 months, 8-10 months, 10-12 months and more than 12 months, respectively. Less percentage (3.2) of children were not given top milk even at the age of 24

Table 4 : Information related to weaning		
Character	Number	Per cent
Weaning (months)		
<4	33	13.2
04-06	114	45.6
06-08	44	17.6
>8	59	23.6
Gave commercial weaning food		
Yes	77	30.8
No	173	69.2
Age of giving top milk (months)		
<4	36	14.4
04-06	56	22.4
06-08	60	24
08 - 10	26	10.4
10-12	46	18.4
>12	18	7.2
Not yet	8	3.2
Top milk type		
Cow	174	69.6
buffalo	2	0.8
Goat	4	1.6
Packet	44	17.6
Powder milk	17	7.2
Not yet	9	3.2
Use bottle		
Yes	78	31.2
No	172	68.8
Sterilize bottle		
Yes	69	88.46
No	9	11.54
When clean bottle		
Just after feed	40	51.28
with other utensils	2	2.56
when required again	36	46.15
Age of giving semi solid/solid food (months)		
<4	2	0.8
04-06	41	16.4
06-08	100	40
08 - 10	55	22
10-12	39	15.6
>12	13	5.2

months.

As a top milk cow milk was preferred by 69.2 per cent mothers. Remaining 0.8 per cent, 1.6 per cent, 17.6 per cent and 7.2 per cent mothers preferred buffalos, goats, packet and powder milk, respectively.

Bottle was used by 68.8 per cent children while 31.2 per cent children didn't use bottle. Among bottle users 88.46 per cent sterilize the bottle before using it and remaining 31.2 per cent didn't sterilize. Bottle should be sterilized before use to avoid contamination of milk. Plastic bottles are made with bisphenol A and other chemicals that released when heated. When these chemicals are released they may end up in milk that is why it is important to sterilize bottles before use.

Infants are highly susceptible towards infections proper hygiene should be maintained while feeding them. Bottles should be cleaned immediately before and after every use. In present study only half of the mothers (51.28%) cleaned bottles just after feed, remaining 2.56 and 46.15 per cent mothers cleaned bottles with other utensils and when required again.

Only few percentages of children (16.4) were given semi solid/ soild foods at the right age that is 4-6 months. Large percentage (40%) of children received semi solid/ solid food so early that is before 4 months. Remaining 22 per cent, 15.6 and 5.2 per cent children, 15.6 and 5.2 per cent children received semi solid/ solid food at the age of 8-10 months, 10-12 months and more than 12 months, respectively.

Immunization status:

Maximum of preschooler (84%) received complete immunization, still among 14.4 per cent subjects it was not satisfactory whereas 1.6 per cent didn't have any documents related to immunization from which the data could be collected (Table 5).

Table 5 : Immunization status		
Immunization status	Number	Per cent
Complete	210	84
Partial	36	14.4
Don't have card	4	1.6
Total	250	100

Conclusion:

Faulty feeding practices and immunization status is a serious issue of concern as it is directly related to the sensitive issue of malnutrition. In the resent study although breast feeding rate was 100 per cent but on the other part high prelacteal feed, dissatisfactory duration of exclusive breast feed, late or early initiation of weaning are the issues which needs immediate cure to combat

from the threat of malnutrition .

Performa :

Subject No. _____ Date of interview _____

Background information about family :

- Name of mother: Age:
- Name of child: Age:
- Address:
- Rural/Urban:
- Religion: Hindu/Muslim/others
- Occupation of father:
- Occupation of mother:
- Literacy status: Father - Illiterate/Literate (class)
- Mother-Illiterate/Literate (class)
- Type of family: Nuclear/Joint

Information about child :

- Name:
- Age:
- Birth weight:
- Birth order:
- Gestational time:
- Place of delivery:
- Type of Delivery: Normal/ c- section
- Frequency of getting ill: 2-4 /5-7/8-10/>= 11 times
- Immunization: Complete/ Partial/Don't have card

Privailing infant feeding practices :

- Prelacteal feed: Yes/No
- Name of prelacteal feed:
- Feed breast milk: yes/no
- Feed : Demand/ Fix interval
- Time duration of breast feed initiation after birth (hours): 0-1 /2-5/ >5
- Know Colostrum: Yes/No
- Gave colostrum: Yes/ No
- Exclusive breast feed: Yes/ No
- Duration of exclusive breast feed(months): 0-3 / 3-6 / 6-8 / >8
- Breast feed during mothers illness: Discontinued/ less normal/ continued normally

Information related to weaning :

- Started weaning(months): <4 / 4-6 / 6-8
- Gave commercial weaning food: Yes / No
- Age of giving top milk (months): <4 / 4-6/ 6-8/ 8-10/ 10-12 /> 12 / not yet
- Type of top milk: Cow/ buffalo/ goat/ Packet/ Powder milk/ not yet
- Use bottle: Yes/No
- When clean bottle:
- Age of giving semi solid/ solid food (months): <4/ 4-6/ 6-8/ 8-10/ 10-12/ >12

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■ REFERENCES

Anand, R.K. (2002). Feeding practices on infant and young children. In:Anand RK, Kumta NB, Kushwaha KP, Gupta A. (eds): *The Science Of Feeding*. New Delhi: Jaypee.;3-20.

Chatterjee, S. and Saha, S. (2008). A study on knowledge and practice of mothers regarding infant feeding and nutritional status of under-five children attending immunisation clinic of a Medical college. *Internet. J. Nutri. & Wellness*, **5**(1). DOI: 10.5580/26df.

Government of India(2012). Children in India 2012- A Statistical Appraisal : 7-35.

Gupte, Suraj, ed. (2012). *Pediatric nutrition*. Ed. 2, Peepee Publishers and Distributors (P.) Ltd., New Dehli. pp. 96- 102.

Ibrahim, H. Al-Ayed (2010). Mothers' knowledge of child health matters: Are we doing enough? *J. Community Health & Medicine*, **17**(1):22-28.

Prasad, K.N.(2015). Profile of pre lacteal feeding, exclusive and continued breast feeding practices among families in rural communities of Pondycherry. *Scholars Academic J. Biosciences*, **3**(6):509-514.

■ WEBLIOGRAPHY

UNICEF India (2007). Infant and young child feeding.<http://www.Unicef India,2 Unicef.in/whatwedo/7/Infant-and-young-child-feeding>. Retrived on 6.4.15.

WHO (2016). Immunization. <http://www.who.int/topics/immunization/en/>. Retrived on 11.11.2016.

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