

To Study and Assess Current Practices of Complementary
Feeding Among Infant Mothers in Dholpur

By

Arpita Dadhich

*Dissertation submitted in partial fulfillment of the requirements of the degree
MBA Hospital and Health Management*

Academic year, 2017-2019



The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: www.iihmr.edu.in

To Study and Assess Current Practices of Complementary
Feeding Among Infant Mothers in Dholpur

By

Arpita Dadhich

*Dissertation submitted in partial fulfillment of award of
MBA Hospital and Health Management*

Academic year, 2017-2019

*Tata Trusts - The India Nutrition Initiative
& ICDS Dholpur*



The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: www.iihmr.edu.in

TO WHOMSOEVER MAY CONCERN

This is to certify that **Arpita Dadhich**, student of **MBA Hospital and Health Management** from The IIHMR University, Jaipur has undergone internship training at **TATA TRUSTS- The India Nutrition Initiative & ICDS Dholpur** from **2nd February 2019** to **2nd May 2019**.

The Candidate has successfully carried out the study assigned to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.



Dr. P.R Sodani
Pro-President
The IIHMR University, Jaipur



Dr. Mohan Lal Bairwa
Associate Professor
The IIHMR University, Jaipur

कार्यालय उपनिदेशक महिला एवं बाल विकास विभाग,
धौलपुर (राज०)

The certificate is awarded to

Arpita Dadhich

In recognition of having successfully completed her
Internship in the department of

Integrated Child Development Services

And has successfully completed her Project on

The current practices of complementary feeding of mothers in Dholpur, Rajasthan

Date – 2nd February to 2nd May, 2019

Organization - TINI (The India Nutrition Initiative) TATA TRUSTS

She comes across as a committed, sincere & diligent person who has a strong
drive and zeal for learning

We wish him/her all the best for future endeavors


Deputy Director
ICDS, Dholpur

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled to study current practices of complementary feeding among mothers of Dholpur, Rajasthan and submitted by Arpita Dadhich Enrollment No. IIHMR-U/01/2017-19/0542 under the supervision of Dr. Mohan Bairwa for award of MBA in Hospital and Health Management in Health and Hospitals of the University carried out during the period from 2nd February 2019 to 2nd May 2019 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.



Signature

ACKNOWLEDGEMENT

I feel privileged in expressing my kindest gratitude to **Rajesh Chouhan (Deputy Director, ICDS Dholpur)** under whose able guidance and supervision this study was conducted. The keen interest he evinced throughout this period and the graciousness with which he gave his valuable advice was his exclusive acumen.

I also feel privileged in expressing my thanks to **Sidharth Dua (Programme officer)** whose guidance and support was always there for me.

I would be failing in my duties if I miss to acknowledge and thank all those cooperating people who formed the subject of this study. These include the entire team of **ICDS Jaisalmer**. They extended their wholehearted co-operation in different phases of my project.

In the end I thank all those fellows and colleagues who have helped me in making this project a success and my apologies to anyone whose name I would have inadvertently forgotten to mention here.

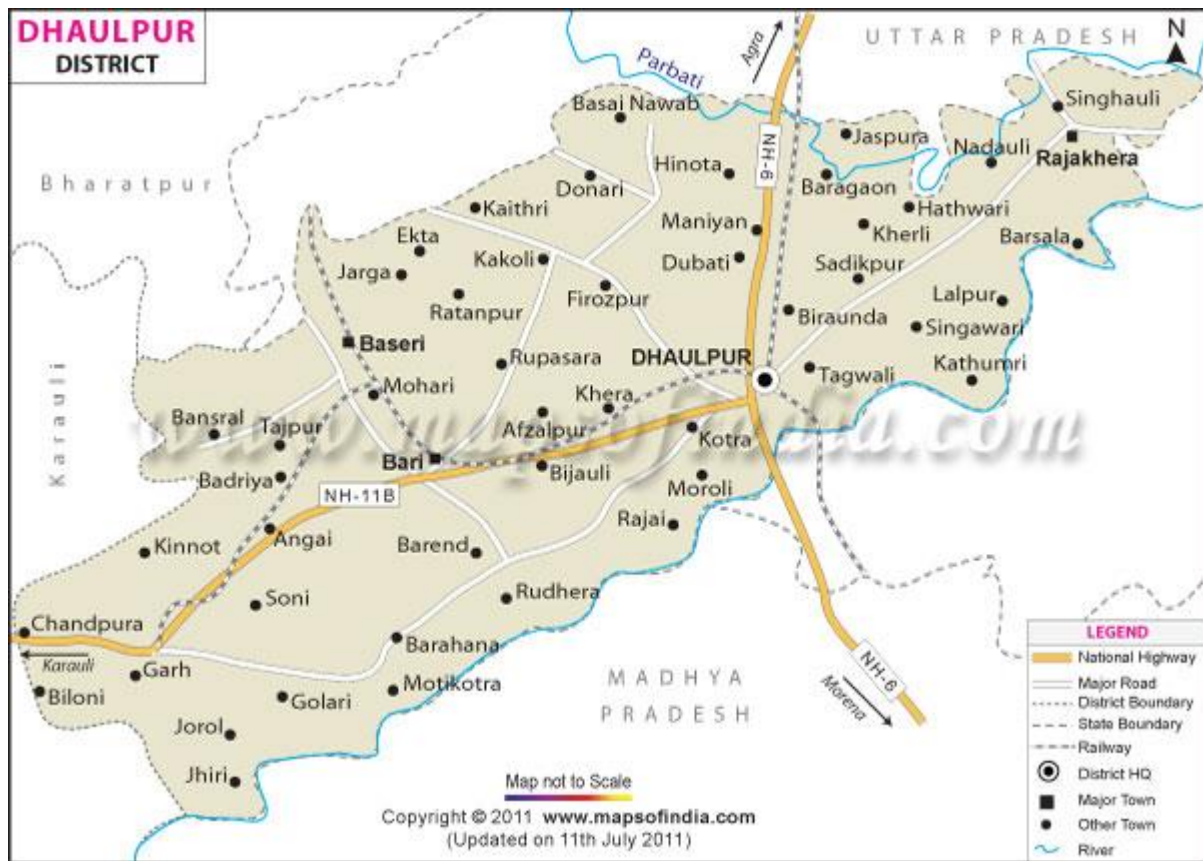
Arpita Dadhich

Abbreviation

AIIMS	All India Institute of Medical Sciences
ANC	Antenatal care
ASHA	Accredited Social Health Activist
AWC	Anganwadi Centre
AWW	Anganwadi Worker
BCC	Behavior change communication
BCC	Behavior Change Communication
BMS	Breast milk substitutes
CBO	Community-based organization
CF	Complementary feeding
CHW	Community health worker
CW	Community worker
DHS	Demographic and Health Survey
EBF	Exclusive breastfeeding
GOI	Government of India
HFP	Homestead food production
HH	Households
ICDS	Integrated Child Development Services Scheme
ICMR	Indian Council of Medical Research
IEC	Information, education and communication
IFA	Iron and folic acid
IIPS	International Institute of Population Sciences
IMCI	Integrated management of childhood illness
ISSNIP	ICDS Systems Strengthening & Nutrition Improvement
Project	
IYCF	Infant and Young Child Feeding
IYCN	Infant and young child nutrition
KAP	Knowledge, attitudes and practices
LBW	Low birth weight
MDGs	Millennium Development Goals
MMR	Maternal mortality ratio
MNs	Micronutrients
MOHFW	Ministry of Health and Family Welfare
MUAC	Mid-upper arm circumference
MWCD	Ministry of Women and Child Development
NFHS	National Family Health Survey
NGOs	Non-Government Organizations
NHM	National Health Mission
NHSRC	National Health Systems Resource Centre
NIHFW	National Institute of Health and Family Welfare
NIN	National Institute of Nutrition
NNM	National Nutrition Mission
NNMB	National Nutrition Monitoring Bureau
ORS	Oral rehydration solution
ORS	Oral Rehydration Salt
RCH	Reproductive and Child Health
RMNCH +A	Reproductive, Maternal, Newborn, Child and Adolescent Health
SAM	Severe Acute Malnutrition

SBA	Skilled birth attendant
SF	Supplementary feeding
SHG	Self Help Group
SIHFW	State Institute of Health and Family Welfare
SNP	Supplementary Nutrition Programme
THR	Take Home Ration
U5MR	Under-five mortality rate
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VAD	Vitamin A Deficiency
VHND	Village Health and Nutrition Day
VHSNC	Village Health Sanitation and Nutrition Committee
WCD	Women and Child Development

DHOLPUR DISTRICT



Dholpur District is a district of Rajasthan state in Northern India. Dholpur District has an area of 3084 km². The Chambal River forms the southern boundary of the district, across which lies the state of Madhya Pradesh. The district is bounded by the state of Uttar Pradesh on the east and northeast, by Bharatpur District of Rajasthan on the northwest, and Karauli District of Rajasthan on the west. All along the bank of the Chambal River the district is deeply intersected by ravines; low ranges of hills in the western portion of the district supply quarries of fine-grained and easily worked red sandstone.

Administratively the district is divided into five subdivisions, Dholpur, Bari, Rajakhhera, Saipau and Basedi, and six tehsils, Dholpur, Bari, Rajakhhera, Basedi, Sarmathura and Saipau.

According to the 2011 census, Dholpur district has a population of 1,207,293. This gives it a ranking of 394th in India (out of a total of 640). The district has a population density of 398 inhabitants per square kilometre (1,030/sq. mi). Its population growth rate over the decade 2001-2011 was 22.78%. In Dholpur district, Maniyan (Tehsil: Dholpur) is the most populous (13,740 persons) village; and Malpur (Tehsil: Saipau) is the least populous (01 person) village.

The Scheduled Caste and Scheduled Tribe population in Dholpur district is 20.4 percent and 4.9 percent respectively whereas the State percent of Scheduled Caste and Scheduled Tribe population is 17.8 and 13.5 respectively.

The economy of Dholpur district is mainly dependent on agriculture as 58.1 percent workers in the district are either cultivators or agricultural labourers. However the district percent of such workers is lower than the state average of 62.1 percent.

Dholpur district consists 79.5 percent rural and 20.5 percent urban population whereas the State percent of rural and urban population is 75.1 and 24.9 respectively.

Introduction

Adequate nutrition during infancy and early childhood is fundamental to the development of each child's full human potential. It is well recognized that the period from birth to two years of age is a "critical window" for the promotion of optimal growth, health and behavioral development. World Health Organization (WHO) estimated that 9.5 million children under 5 years old died Worldwide; of which one-third were due to malnutrition. In the period of 6-24 months when child moves from breastfeeding to solid food as its primary source of nutrition is the greater risk of malnutrition

Complementary feeding is one of the most important components of infant feeding. Insufficient of complementary foods and poor child feeding practice have a significant effect on promotion of optimal growth, health and Cognitive development of the child during this important period. Thus, the complementary foods should be appropriate, safe, inadequate amount and start timely. Of the 19 million infants in the developing world who have low birth weight (< 2,500 grams), 8.3 million are in India. This means that approximately 43 per cent of all the world's infants who are born with a low birth weight are born in India. Malnutrition is an underlying cause in up to 50 percent of all underfive deaths. About 55 million, or one-third, of the world's underweight children under age five live in India (UNICEF, 2008). Malnutrition is responsible, directly or indirectly, for 60 percent of the (10.9 million) deaths annually among children under five (WHO, 2003). In India 20 per cent of children under five years of age suffer from wasting due to acute undernutrition. More than one third of the world's children who are wasted live in India. Forty three per cent of Indian children under five years are underweight and 48 per cent (i.e. 61 million children) are stunted due to chronic undernutrition, India accounts for more than 3 out of every 10 stunted children in the world. Undernutrition is substantially higher in rural than in urban areas. Short birth intervals are associated with higher levels of undernutrition. The percentage of children who are severely underweight is almost five times higher among children whose mothers have no education than among children whose mothers have 12 or more years of schooling. We know that shamefully large numbers of children in both wealthy and poverty-stricken regions suffer malnutrition: the malnutrition of excess amounts of inappropriate foods and the malnutrition of insufficient nutritious foods. As adults, we should feel embarrassed that so many small children are so poorly fed. We can change this situation, if we want to and many people are already working to this end. Good nutrition for children harmonizes with good nutrition for adults...and it would be good for the world if we worked to this end. While adequate nutrition is important throughout childhood, it is crucial during the first 5 years of a child's life particularly so, in the first 2-3 years when rapid growth occurs and when the child is entirely dependent on the mother and the family for food. 12 Infants and young children are at an increased risk of malnutrition from six months of age onwards, when breast milk alone is no longer sufficient to meet all their nutritional requirements and complementary feeding should be started.

Hence this study was undertaken to assess the practices of complementary feeding. Appropriate diet is critical in the growth and development of children especially in the first two years of life.

The World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of life, with the addition of complementary feeds at six months with continued breastfeeds until at least the age of two. Infants and young children are at an increased risk of malnutrition from six months of age onwards, when breast milk alone is no longer sufficient to meet all their nutritional requirements and complementary feeding should be started. Initiating complementary feeds too early or too late can lead to malnutrition. WHO refers to the addition of energy and non-energy containing fluids, non-human milk, and semi solids or solids to children's diet. Natural weaning occurs as the infant begins to accept increasing amounts and types of complementary feedings while still breastfeeding on demand. When natural weaning is practiced, complete weaning usually takes place between two and four years of age. Planned weaning occurs when the mother decides to wean without receiving signals from the infant that he is ready to stop breastfeeding. Childhood malnutrition rates are high in the country with 43% children in India under five years reported to be underweight and 48% are stunted. Malnutrition in children is more an interplay of female illiteracy, ignorance about nutritional needs of infants and young children and poor access to health care.

The National Rural Health Mission since its inception in 2005 endeavors to reduce Under Five mortality and has been implementing strategies through adopting a "Life Cycle" approach for breaking the intergenerational cycle of undernutrition. Thus, the cycle of malnutrition continues, as the malnourished girl child faces greater odds of giving birth to a malnourished, low birth weight infant when she grows up. Poor breastfeeding and complementary feeding practices, coupled with high rates of infectious diseases, are the principal proximate causes of malnutrition during the first two years of life. The steep rise in malnutrition in children during the first two years of life is indicative of poor infant feeding practices. Events leading to undernutrition often predate the birth of the child, maternal undernutrition, adolescent pregnancy, less spacing between births and high birth order resulting in birth of low birth weight babies. Appropriate feeding is crucial for healthy growth and development of the infant. Complementary feeding is introduced in only 53% infants between 6–8 months of age, with only about 44 % of breastfed children being fed at least the minimum number of times recommended. Only half of them also consume food from three or more food groups. Feeding practices are even poorer in non-breastfeeding children. Overall, only 21 percent of breastfeeding and non-breastfeeding children are fed in accordance with the infant and young child feeding recommendations. Some of the important reasons for the dismal nutrition status of our infants and young children include inadequate or inappropriate knowledge amongst caregivers regarding correct infant and young child feeding practices, frequent infections, high population pressure, low social and nutritional status of girls and women, suboptimal delivery of social services and lack of more viable infant and young child feeding guidelines.

Aim of the Study

The Aim of the study is to assess the knowledge, attitude and practices of complementary feeding among families of Dholpur district, Rajasthan. And use of the learnings & findings to improve the situation for better outcomes under ICDS Dholpur

Objectives

To Study and assess current practices of complementary feeding among infant mothers in Dholpur

Rationale

Complementary feeding is extremely essential from six months of age, while continuing breastfeeding, to meet the growing needs of the growing baby. Infants grow at a very rapid rate. The rate of growth at this stage is incomparable to that in later period of life. An infant weighing around 3kg at birth doubles its weight by six months and by one year the weight triples and the body length increases to one and a half times than at birth. Most of the organs of the body grow rapidly, both structurally and functionally during the early years of life and then later on, the growth slows down. Most of the growth in the nervous system and brain is complete in the first two years of life. In order to achieve optimum growth and development, there is an increased demand for a regular supply of raw material in the form of better nutrition. Adequate complementary feeding from six months of age while continuing breastfeeding is extremely important for sustaining growth and development of the infant. Active feeding styles for complementary feeding are also important. Appropriate feeding styles can provide significant learning opportunities through responsive caregiver interaction, enhancing brain development in the most crucial first three years. Careful hygienic preparation and storage of complementary foods is crucial to prevent contamination. Personal hygiene plays an important role in feeding infants.

The State of Nutrition in Dholpur

Undernutrition (Stunting, Wasting, Underweight)—Findings from NFHS-4 (2015-16) highlight that stunting (height-for-age) in children under 5 years is 54.3 % in Dholpur, which is quite higher than the state and national average (Rajasthan - 39.1% and India - 38.4%). The under 5 wasting (weight-for-height) in Dholpur (15.8%) compared to State (23.0%) and National 21.0%) averages. The percentage of underweight (weight-for-age) children in Dholpur district (39.8%) is also very alarming and higher than state (36.7%) and national (42.5%) averages

Infant and Young Child Feeding- As per NFHS -4, only 34.3 % of children under age 3 years were breastfed within one hour of birth as compared to the state average (28.4%) and is far behind the national average (41.6%). The proportion of exclusive breastfeeding is 56.3% which is again lower than the State average (58.2%). National (54.9%) average. After the first 6 months, breast milk is no longer enough to meet the nutritional needs of infants. Therefore, complementary foods should be added to the diet of the child. As matter of concern, only 3.1% children aged 6-23 months were receiving an adequate diet which is better than the state average (3.4%) but almost half of the national average (9.6%).

REVIEW OF LITERATURE

Inappropriate feeding practices have been acknowledged as major causes of the onset of malnutrition in young infants. From the age of six months, when breast milk alone is no longer sufficient to meet child's nutritional requirements, infants enter a particularly vulnerable period during which they make gradual transition to consumption of family diet (Bhandari et al., 2004).

Adequate nutrition during infancy and early childhood is essential to ensure the growth, health, and development of children to their full potential. The World Health Organization (WHO) and United Nations Children's Fund (UNICEF) recommend exclusive breastfeeding (EBF) for six months, i.e. 180 days and addition of complementary foods at six months of age with continued breastfeeding till at least two years. Globally, optimal breastfeeding could prevent 13% of deaths of children aged less than five years while appropriate complementary feeding (CF) practices might result in an additional 6% reduction in under-five mortality, especially in developing countries as ours. Poor feeding practices, coupled with high rates of infectious diseases, are the proximate causes of malnutrition during the first two years of life. The second half of an infant's first year is especially a vulnerable time when breastmilk alone is no longer sufficient to meet his/her nutritional requirements, and CF should be started.

Complementary feeding can be defined as the process starting when breast milk alone is no longer sufficient to meet the nutritional requirements of infants and therefore other foods and liquids are needed along with breast milk. Poor infant and young child feeding behaviors are known to be one of the most important causes of child malnutrition which is a major cause of child mortality. Malnutrition is responsible, directly or indirectly, for 60 percent of the (10.9 million) deaths annually among children under five (WHO, 2003).

The recommended age for initiation of complementary foods are from 6 months of age in addition to breast milk, initially 2-3 times a day between 6-8 months, increasing to 3-4 times daily between 9-11 months and 12-24 months with additional nutritious snacks offered 1-2 times per day, as desired (WHO, 2002).

The weaning period is considered very crucial for the development and maintenance of growth of the infant. In India common problems that have been documented in literature include the feeding of poor quality complementary foods, insufficient amounts of complementary foods, poor dietary diversity, and decline in breast feeding frequency and contamination of complementary foods and utensils (Dubowitz et al., 2005). A review of feeding guidelines promoted by various national and international organizations has shown that there are inconsistencies in the specific recommendations for feeding infants and children (Dewey et al., 2009).

WHO survey in 2002 concluded that 6 months are the ideal period for exclusive breastfeeding and after that complementary feeding should be started with continued breastfeeding till 2 years. Although breast and formula feeding has been studied extensively, little attention has been paid to complementary feeding. The limited studies are shown

considerable variation in complementary feeding practices between countries. Pattern of complementary feeding could be affected by socioeconomic and cultural factors. Research in effective interventions and programmatic approaches to improve complementary feeding has been recommended by WHO. Awareness of these factors will be helpful in planning interventions to get better complementary feeding practices. This is the first report on complementary feeding practices in India to identify the pattern of introduction of foods and demographic, socioeconomic and obstetrics factors influencing this practice.

This dismal picture about breastfeeding is reflected in other studies also. Karnawat et al (1997) did a study on knowledge and attitude of regarding infant feeding practices which revealed that nearly 66% favoured to initiate complementary feeding at six months.

Taneja et al (2003) conducted a study on rural health centre in Delhi and found that most of the infants (90.6%) were breastfed up to 6 months of age but exclusive breastfeeding was uncommon (26.4%)

Yadav et al (2004) conducted a KAP study about complementary feeding in Bihar. About 29% of mothers started complementary feeding at six months timely. They also reported that most of the mothers in their study, breastfed their child up to more than 1 year of age.

Mehdi & Mahanta (2004) in their study on breastfeeding and weaning practices reported 100% breast feeding rate was maintained throughout 0 to 12 months. Exclusive breastfeeding rate was 69.35% up to 6 months of age. Complementary feeding practices was 42%

Kumar et al (2006) studied socio-economic correlates of complementary feeding in urban slums of Chandigarh and reported that 38.9% of the respondents initiated complementary feeding at six months age.

Similar findings have been reported from other developing countries. Oomen et al (2009) did a longitudinal study on prevalence of complementary feeding and factors influencing it in urban and rural settings. They reported very high (55%) use of formula feeds in urban mothers.

Taneja et al (2003) in their study found that 40.6% infant's top milk or semi solids were started before 4 months of age in addition to breast milk whereas in our study only 23% started complementary feeds by 6 months of age. They also reported that semisolid foods were started in only half the children at 6 month of age and even at 9 months of age, one-fourth of the infants were not receiving appropriate semisolid feed.

Yadav et al (2004) in their study found that only 55% mothers introduced supplements to their infants between 6-12 months. Similar observation was also made by Mehdi & Mahanta (2004).

Methodology :

Research Question -

What are the current practices of complementary feeding among infants in Dholpur district, Rajasthan?

Study Area

The study area is Dholpur district, Rajasthan.

Study Design

This was a descriptive cross sectional study aimed at collecting data pertaining to socio demographic profile and information regarding various complementary feeding practices.

Sample Size

There are total 100 samples for the study population.

Sampling Techniques

The sampling technique employed was stratified sampling based on 5 strata, i.e. the 5 blocks of Dholpur, 20 women sample from each block were taken based on their availability and convenience

Study Period

The study was conducted from 2 February 2019 to 2 May 2019.

Tools:

An interview schedule was used to obtain information regarding socio demographic profile of the mother, general information of the infant and various complementary feeding practices.

RESULTS:

Table 1: Socio demographic profile of the mother & child

Socio Demographic Profile	Percentage
<u>Education qualification:</u>	

Never attended School	16%
Primary	34%
Secondary	26%
Undergraduate	18%
Above graduate	6%
<u>Family set up:</u>	
Nuclear	36%
Extended	39%
Joint	25%
<u>Age of mother:</u>	
<25	56%
>25	44%
<u>Sex of the baby:</u>	
Male	57%
Female	43%

Table 1: - Indicates that 34% and 26% of mothers had attained Primary and secondary levels of education. 18% of mothers had professional undergraduate degree and only 6% had completed their post graduate education. 16% have never attended school. The Educational factor had a greater variable for deciding practices of complementary feeding. Also have influential towards hygiene related hand washing, Breast feeding etc. 36%, 39% and 25% of mothers lived in nuclear, extended and joint family background respectively. This decides basically number persons who look after child if mother is busy in other household activities. The association between family members and their influences also encourage mother for diversified complementary feeding practices.

Among 100 mothers, More than half of the interviewed mothers (56%) were in the age group < 25 years and rest of them were in the age group > 25 years of age. Similarly of the total studied population 57% of mother having male child and rest 43% of mothers having female child

Table 2: Reasons for delayed introduction of complementary feeding

Variables	Percentage
Tried but failed as child vomits	38
Had no idea what to start	28
Mothers felt that her milk was sufficient	7
Family elders says, kid may not digest solid foods	9

Mother working, had no time	3
Milk acceptance was good	7
Scared of giving new foods	8

Feeding utensils: - It is the recommendation of WHO and UNICEF that babies should be fed with cups and spoons. Bottle use should be completely avoided. Among the sample, 39% mothers were using both bottle and cup and spoon for feeding and rest were not using bottle.

Month of introduction of complementary foods

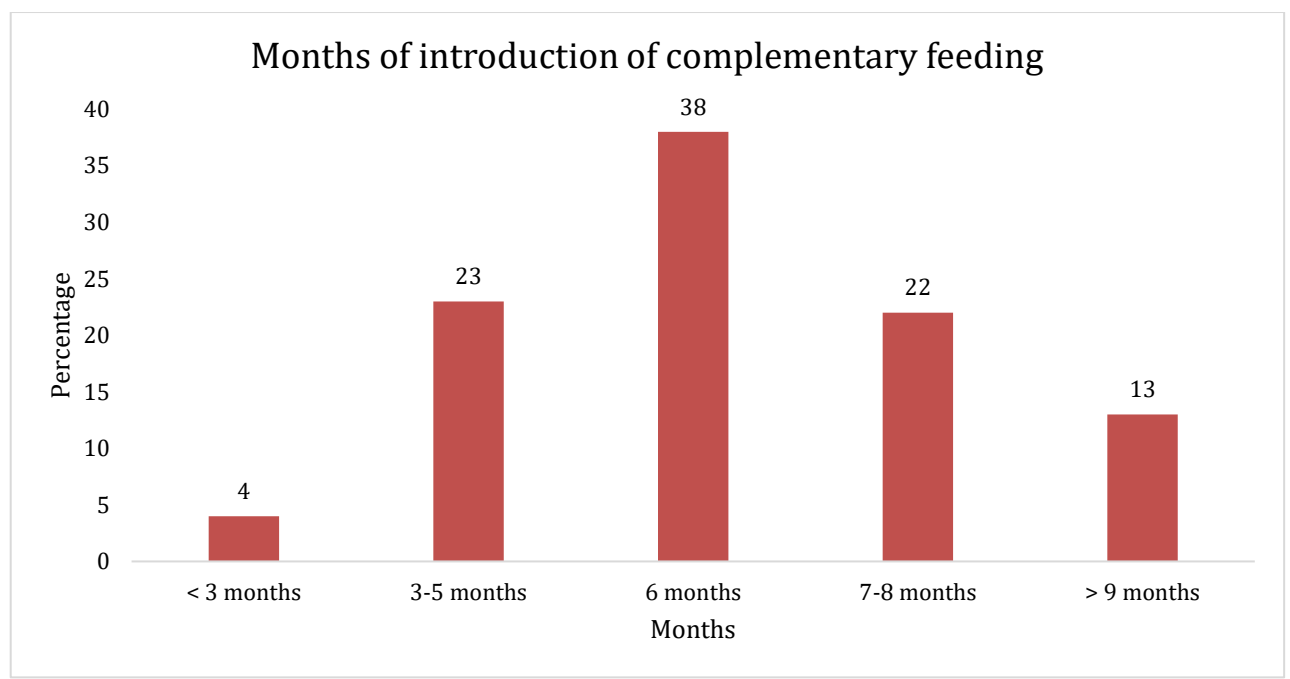


Figure: - represents percentage distribution of month of introduction of complementary foods. Only 38% of mothers introduced complementary feeds by 6 month of age as recommended by WHO. Earliest age at which complementary feeding was started was three month. Mothers who reported giving complementary food by 3 - 5 months were 23%, and 22% of the mothers reported starting complementary feeding at 7 - 8 month. Highest age for starting of complementary feeding was 9 months or above. 13% of families started complementary feeding at this age group. This was a disturbing trend in complementary feeding practice which has a considerable bearing on the nutritional status of the child and may rapidly precipitate malnourishment, especially if associated with infection. Secondly complementary feeding is defined as by WHO Complementary feeding is defined as the process of starting when breast milk alone is no longer sufficient to meet the nutritional requirements of infants and therefore other foods and liquids are required along with breast milk. The transition from exclusive breast feeding to family foods referred as complementary feeding typically covers the period from 6-24 months of age.

(WHO/UNICEF, 1998) are approximately 200 kcal per day at 6-8 months of age, 300 kcal per day at 9-11 months of age, and 550 kcal per day at 12-23 months of age. In industrialized countries these estimates differ somewhat (130, 310 and 580 kcal/d at 6-8, 9-11 and 12-23 months, respectively) because of differences in average breast milk intake. The complementary feeding should be timely, appropriate and hygienic. Here the variation of complementary feeding is justified in terms of early initiation due to mothers having not sufficient breast milk as expressed, when baby crying frequently families starts from bottle feeding, Biscuits to baby's mouth. Timely initiation does not express good figures as complementary should be appropriate. Late initiation due to poor health condition, premature baby, LBW, Infected by diarrhea and family point of view that baby is too small to start anything other milk.

Table :- Counselling by ASHA/AWW

INDICATOR	Percentage
Exclusive Breast Feeding	78%
Introduction of Semi Solid Food	64%
Immunization	82%
Hand washing	39%
Age appropriate quantity of food	32%
Age appropriate frequency of food	38%
Age appropriate Diversity of food	29%
Not Advised	17%

The above figure portrayed 17% of total respondent has been neither visited nor counselling anything by ASHA and AWW. Even from crucial transition from breast feeding to complementary feeding. Though hand washing counselling is 39% still no proper steps for this. Household generally uses plain water or soap with water for hand washing purposes. Hand washing is a major hygiene factors to combat many long hanging infection and diseases. Handwashing after use toilet is regular but before cooking food, before feeding baby is not common for all. The diversity is observed in this indicator. Immunization counselling is good as 82% of respondent expressed that they have been invited by FLWs for immunization. There is simultaneously declining from age appropriate quantity to age appropriate diversity.

Discussion

The study reveals that complementary feeding practices were inappropriate and the kind of food offered to infants needs to be improved for future health prospects since infancy is the

period in which there is a higher prevalence of malnutrition and deficiency of certain micronutrients. In the present study only 38 % mothers started complementary feeding at recommended time i.e. 6 month of age. Higher prevalence of malnutrition among older children (6-12 months) may be related to prolonged exclusive breastfeeding (Passi Gouri, 2004). Breast milk alone is not sufficient to satisfy the nutritional needs to sustain optimal growth beyond 6 months (Vaahtera et.al. 2001). A recent study assessed the impact of timely introduction of solid foods at 6 months and concluded that while the timing of complementary feeding by itself may not lead to improved nutritional status, timely introduction of foods of appropriate quality and quantity in a hygienic environment along with increased maternal interaction time will likely to have a positive effects on growth of young children (Kramer et.al., 2003 and WHO, 2008). Commonest reason for delayed complementary feeding was an unsuccessful attempt at feeding, i.e., “the child vomits out everything”. This is actually not vomiting but the fact that the child tries to bring out the food put on the front of the tongue. Hence, the mothers should be educated that child has to develop the taste of the food and if they attempt and keep the food on child’s tongue, the child will slowly start liking it and start swallowing (Elizabeth, 2010). Other reasons were no idea what to give and many other. It’s important for the parents to know that feeding a child is a gradual process, which needs continuous trial and support. Monitoring consistency of the feed given to infants is also important.

Health worker must be able to assess the common issues in infant feeding and offer appropriate counselling for the community as well as for individual. Very few mothers received complementary feeding advice during their visit to clinic.

RECOMMENDATION

- Providing sound and culture-specific nutrition counseling to mothers and recommending the widest possible use of indigenous food stuffs will help ensure that local foods are prepared and fed safely in the home in order to improve the knowledge and thereby have a favorable attitude and practices for better feeding practices, strategy is proposed for.
- Proper counselling to mothers and family members using different platforms regarding use of supplements as complementary feeding available at home other than commercial infant foods.
- Extensive training of health worker FLWs (ASHA, AWW, ANM) regarding IYCF, Complementary feeding in such practices
- Capacity building, sensitization, monitoring and evaluating the changes among stakeholders and target groups. the solution lies in training on continuous basis of

the health functionaries, ICDS personnel, self-help groups, anganwadi workers regarding appropriate infant feeding practices and carrying out interventions

- Complementary feeding should be timely, appropriate in terms of quantity, quality, frequency, Diversity etc.
- Demonstration of complementary feeding practices during each home visit by ASHA/AWW and even the similar platforms like VHSND, MCHN, Immunization Day, Annaprashan Day.
- Continuous follow up and hand holding support to mothers of infant for feeding by FLWs and extensive supportive supervision by different convergence department like ICDS, Health, Panchayat raj etc
- Mass Mobilization / Jan andolan regarding IYCF and other nutritional indicators through local media, electronic media, Radio system, IVRS, Folk Dance, Hoardings, Campaigns, Banners, Posters at general places with support of all convergence department.

Conclusion

Most infant feeding practices did not comply with the World Health Organization's (WHO) and ICDS guidelines. The findings revealed that complementary feeding practices were inappropriate in terms of too early or late introduction of complementary foods, feeding of complementary foods with poor nutritive value, use of ready mixes, less dietary diversification, too early or late introduction of other food groups like fruits, vegetables etc. Proper awareness regarding infant feeding practices should be given to mothers to promote appropriate complementary feeding practice. Timely complementary feeding rate in present study was 38%. Good nutrition forms the basic foundation of health throughout the life. Most mothers know little about how much food a child needs for adequate growth and development. In spite of different programmes and initiative by govt still many infants have been untouched by FLWs in any kind of counselling.

REFERENCES:

- Bhandari.N. (2004). An Educational Intervention to Promote Appropriate Complementary Feeding Practices and Physical Growth in Infants and Young Children in Rural Haryana in India. Journal of Nutrition. 134:9.

- Dewey. K. G, Cohen. R. J, Rivera. L. L. (1998). Effects of age of introduction of complementary foods on iron status of breastfed infants in Honduras. *Am J Clin Nutr.* 67:878–84.
- Dubowitz. T. (2005). The Case of Dular: Success and Growth despite the Odds. The Creation and Drive behind a Health and Nutrition strategy in Bihar, India. Boston, MA: Harvard School of Public Health.
- UNICEF (2008). Breast-feeding in India, Baseline Country Assessment. March.
- World Health Organization. (2001). Complementary Feeding: Summary of Guiding Principles. Report of the Global Consultation, 10-13. Geneva, Switzerland. |
- World Health Organization. (2003). Global strategy for infant and young child feeding. Geneva. Pg. 41.
- Bpni; 2000-2005; available from www.bpni.org Bpni (2003) status of infant and young child feeding in 49 districts of India. Bpni technical info series 7 Who (1981). Contemporary patterns of breastfeeding: report on the who collaborative study on breastfeeding.
- World health organization. (1998). complementary feeding of young children in developing countries. A review of current scientific knowledge. Geneva world health organization.
- United Nations children funds. (1993). facts for life: a communication challenge. New York. UNICEF. National family health survey; (nfhs-2) Jammu and Kashmir (1998-99), international institute for population sciences, Mumbai World Health Organization. Infant and young child feeding: Model chapter for textbooks for medical students and allied health professionals. Geneva, Switzerland: WHO; 2009.