

Original Article**Knowledge, Attitude and Practice of Weaning Foods among Mothers in a Selected Rural Area of Bangladesh**

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Abstract

Background: Breast feeding is well recognized since ancient age to be the best feeding for a neonate. Early breast feeding within one hour and for first 6 months are key interventions to achieve Millennium Development Goals (MDG) 1 & 4, related to child malnutrition and mortality respectively¹. In India effective implementation of these interventions is yet to be achieved. National Family Health Survey (NFHS-3) data show proper initiation & continuation of breast feeding in children under 6 months is only 46.4%².

Objectives: To assess the knowledge, attitudes and practice regarding weaning foods among mothers in a selected rural area of Bangladesh.

Materials and Methods: This was a cross-sectional study which was conducted at rural area of Chandra gram village, Bajitpur, Kishoreganj. The study was conducted for a period of 1 year which effect from 1st January 2020 to 31st December 2020, all the rural mothers having at least 1 living child. Total respondents were 125. The sampling technique will be convenience of non-probability type with eligible criteria and willing to participate in the study.

Results: Knowledge regarding weaning, out of 125 respondents, most 113 (90%) had an idea, most 111(89.0%) said nutrition for baby before starting weaning was breast feeding, regarding the reason of starting the supplementary food before 6 months majority 71.4% had lack of knowledge, most 96(76.8%) they gave complementary food, majority 104(83.2%) gave colostrum, most 71(56.8%) of them said Khichuri, almost 118(94.4%) said no practices of feeding in public places.

Conclusion: Regarding the reason of starting the supplementary food before 6 months majority 71.4% had lack of knowledge. Out of 125 respondents, according to their consequences of inappropriate weaning foods, most 59(47.2%) said malnourished.

Key words: Knowledge, Attitude, Practices, Weaning foods, Mothers, Rural area

Introduction

Weaning an infant from breast feeding to complementary food is an important practice which plays a vital role in the child's milestone for growth and development. The right practice of weaning is necessary to prevent from various health related complications like allergy, diarrhea, etc. Furthermore delayed weaning may result in nutritional deficiency, protein energy malnutrition, stunting, developmental delay, childhood illness and sometimes even death.

In the first year of life infants undergo periods of rapid growth when good nutrition is crucial. It is the major determinant of healthy growth and development throughout the childhood and of good health in adulthood.

Breastfeeding is an excellent way to feed your baby in the early months and breast milk continues to be the best food for baby's first year. It is a complete food for the baby because it contains many immune cells which help the baby of fighting against the germs and infections. It also creates psychological security and bond between the mother and child. Weaning a baby from breast milk to other foods is a big change for both babies and mothers. It might affect both of them physically and as well as mentally & emotionally.

Weaning should be started at a very suitable time, because it is equally important for determining the child's growth and development.

In this study, we have attempted to assess the knowledge, attitude and practice of weaning foods among rural mothers of Bangladesh its effect on their children.

The most appropriate length of breast feeding period has often been a subject of controversy, particularly in the third world countries, length of breast feeding may have a major influence on child mortality, morbidity, hence the relationship between the prolonged breast feeding and nutritional status of young children. In developing countries has been subjected to debate for the last 10 years. Some Authors have found a beneficial

effect of breast feeding into the 2nd year of life. Others have recommended that children should be breast feed longer than 18 months^{1,2}.

The Knowledge, Attitude and Practice of exclusive breast feeding and weaning among mothers in two semi-urban areas around a baby friendly hospital Initiative Designated Hospital in Lagos State, Nigeria.

The Knowledge, Attitude and Practice of Exclusive breast feeding and weaning in the semi-urban areas of Lagos State, Nigeria is statistically affected by their educational level and by their professional level.

Breast feeding is an excellent way to feed your baby in the early months and breast milk alone continues to be the best early source of nutrition as it contains many immune cells which help fight germs and infections. It also creates psychological security and bond between the mother and the child. Weaning a baby from breast milk to other foods is a big change for both the mother and the baby³.

Irrespective of the fact that Breastfeeding in rural Bangladesh is almost universal psychological and cultural barriers still exists to early breastfeeding. The exact delay to this are clearly not known.

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Bangladesh is area of the most densely populated country in the world with a population approximately 160 million (Bangladesh Bureau of Statistics). According to the demographers the population would

reach a maximum of 202 million in 2050. Infants contribute about 3% of the total population of Bangladesh. About 1 newborn comes to the earth per 11 seconds in Bangladesh. Feeding practice has lots of implication for the nutritional status of the child.

Mother’s knowledge about nutritious meals for the children influences how the child is fed. In Bangladesh infants and young children are most vulnerable to malnutrition because of lack of knowledge on how to feed a child.

WHO recommends exclusive breastfeeding for 6 months and introduction of Complementary foods at 6 months of age with continued breastfeeding ⁶.

According to current recommendations (WHO, 2007), Complementary feeding should be introduced into the child’s diet at the age of 6 months. Early introduction of complementary foods increases infant morbidity and mortality while late introduction of complementary foods is harmful to the health of the baby, because infants growth stops or slows down and the risk of malnutrition and micronutrients deficiency increases⁷.

Government as well as different NGO’s agencies are working in collaboration & giving emphasis on improving maternal knowledge regarding infants and young child feeding practice. In Bangladesh the national strategy on infant and young child feeding provides a strong framework for accelerating the action to improve the infant and young child feeding practices that are proven to play a major role in enhancing the health, nutrition, survival and development of infants and young children.

One of the aims of this strategy is to improve knowledge and skills on IYCN at all levels and promote positive care practices on complementary feeding to mothers and caregivers.

The high rates of malnutrition into the early tears of life can be associated with inappropriate complementary feeding practices and faulty knowledge regarding complementary feeding. The relationship between maternal knowledge and complementary feeding practices on the nutritional status of children in Bangladesh has not been fully investigated.

Materials and Methods

This was a cross-sectional study which was conducted among the rural mothers of Chandra gram village. The sample size was 125 respondents. The study was conducted for a period of 1 year which effect from 1st January 2020 to 31st December 2020, out of which 30th October to 12th November was spent for data collection. An interview was developed with the help of self-administered semi-structured written questionnaires for the collection of required documents.

First of all verbal consent with greetings and seeking permission was taken from the respondents before the collection of data. They were informed about the objectives of the study. They were also assured that the provided data will remain confidential and will only be used for academic or medical purpose. The study was conducted by face to face interview based on a developed written questionnaire. After compilation of data, the obtained data were checked and verified. Then data were analyzed by excel program from the Master Sheet.

Results

The results had been shown in tabular and graphical forms. The interpretation of the tables and graphs are as follows:

Table 1: Distribution of the respondents based on gave their babies for the first time soon after birth (n=125)

First food just after birth	Frequency	Percentage (%)
Honey	20	16
Cow's milk	1	0.8
Colostrum	104	83.2
Sugar water	0	0
Others	0	0
Total	125	100

Out of 125 respondents, majority 104(83.2%) gave colostrum, and then some 20(16%) gave honey, and only 1(0.8%) gave cow’s milk.

Table II: Distribution of the respondents based on thinking about weaning (n=125)

Thinking about weaning	Frequency	Percentage (%)
Cessation of breast feeding	1	0.8
Adding complementary food	96	76.8
Giving other food	28	22.4
Don't know	0	0
Total	125	100

Out of 125 respondents, most 96(76.8%) they gave complementary food, some 28(22.4%) gave other food and only 1(0.8%) they completed the cessation of breast feeding.

Table III: Distribution of the respondents based on practices of feeding in public places (n=125)

Feeding the child in public places	Frequency	Percentage (%)
YES	7	5.6
NO	118	94.4
Total	125	100

Out of 125 respondents, almost 118(94.4%) said no and only few 7(5.6%) said practices of feeding in public places.

Table IV: Distribution of the respondents based on timing of Weaning period starting from (n=125)

Weaning period starts from	Frequency	Percentage (%)
Before 6 months	7	5.6
After 6 months	118	94.4
Total	125	100

Out of 125 respondents, majority 118(94.4%) started weaning after 6 months of baby’s age and rest few 7(5.6%) started before 6 months of age.

Table V: Distribution of the respondents based on suggestion on awareness of weaning food (n=125)

Suggestion on awareness of weaning food	Frequency	Percentage (%)
Increase awareness	41	32.8
Group discussion	54	43.2
Mass media	17	13.6
Don't know	13	10.4
Others	0	0
Total	125	100

Out of 125 respondents, most 54(43.2%) suggested on group discussion, 41(32.8%) said increase awareness, 17(13.6%) said role mass media and rest 13(10.4%) did not know regarding suggestion on awareness of weaning food.

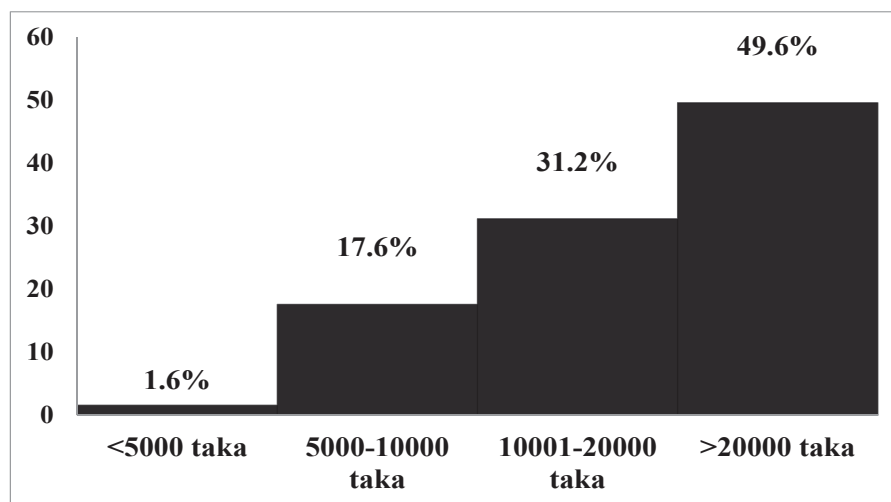


Figure 1: Distribution of the respondents according to their monthly family income (n=125)

Out of 125 respondents, most 62(49.6%) had more than 20000 taka monthly income and followed by 39(31.2%) had 10001-20000 taka, 22(17.6%) had 5000-10000 taka and rest few 2(1.6%) had less than 5000 taka.

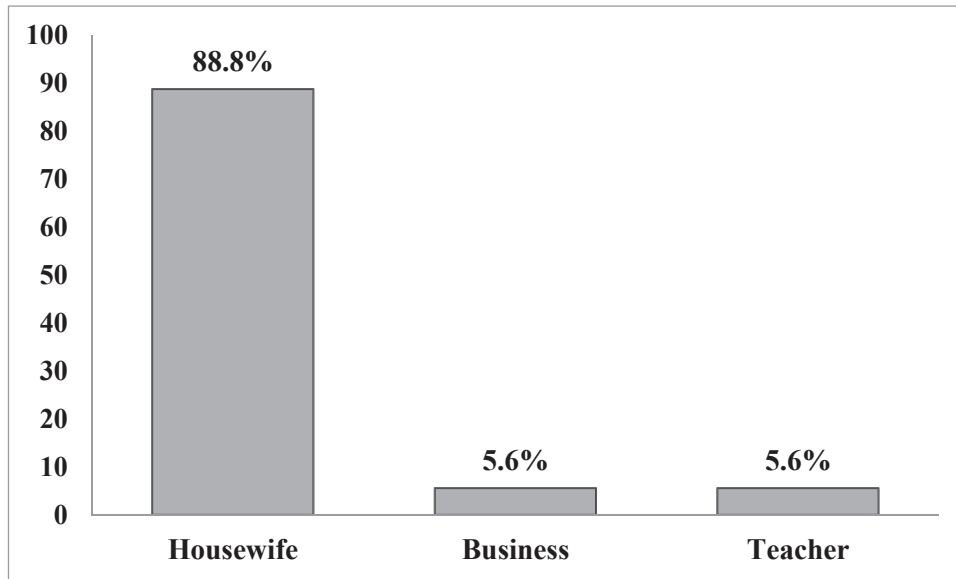


Figure 2: Distribution of the respondents according to occupation (n=125)

Out of 125 respondents, most 111(88.8%) were housewife, and followed by 7(5.6%) were business and 7(5.6%) were teacher

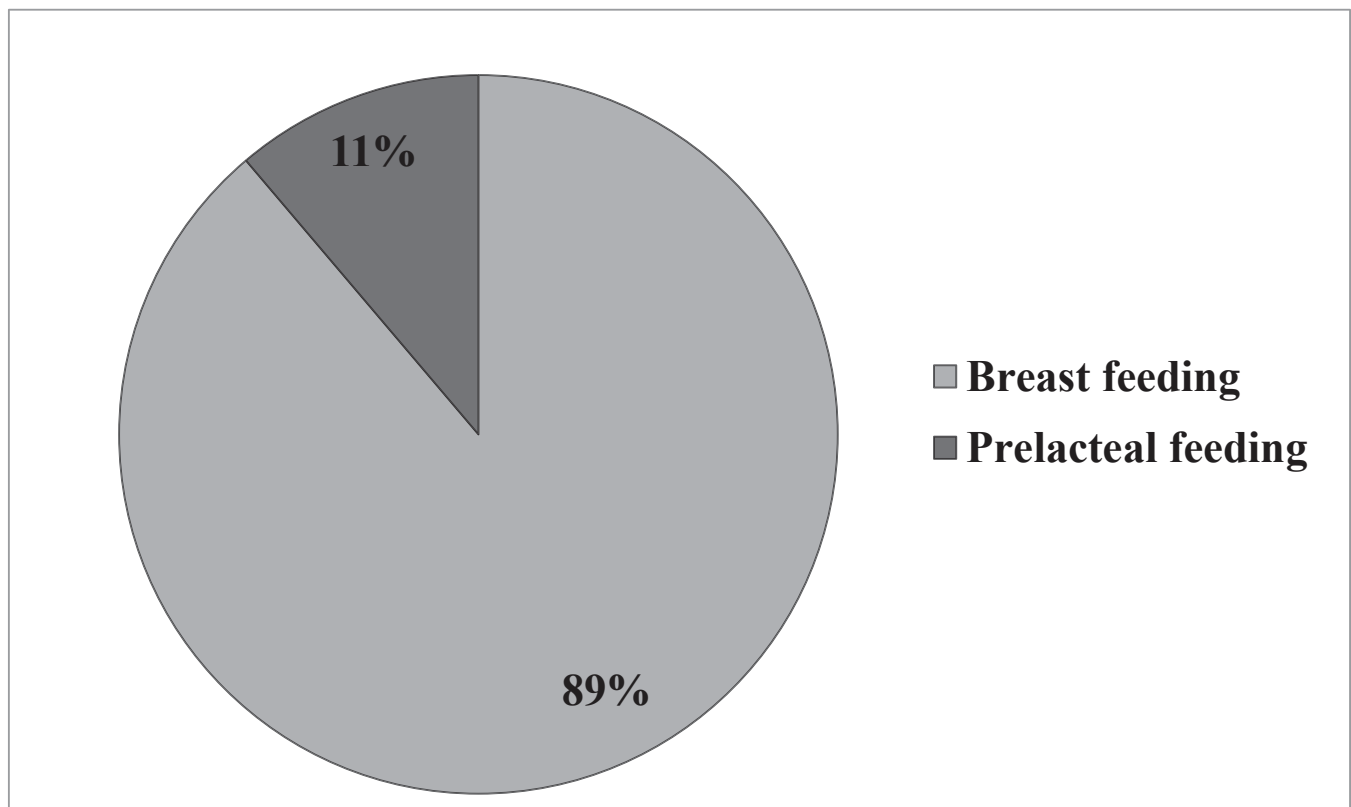


Figure 3: Distribution of the respondents according to nutrition for baby before starting of weaning food (n=125)

Out of 125 respondents, most 111(89.0%) said nutrition for baby before starting weaning was breast feeding and rest 14(11%) said pre-lacteal feeding before weaning food start

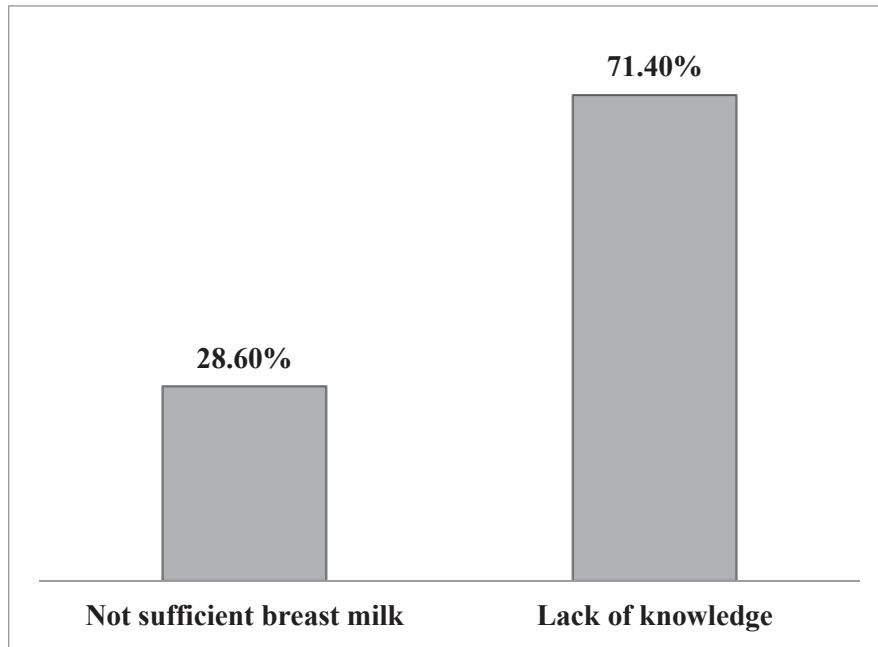


Figure 4: Distribution of the respondents according to reason of supplementary food before 6 months (n=125)

Out of 125 respondents, regarding the reason of starting the supplementary food before 6 months majority 71.4% had lack of knowledge and rest 28.6% had not sufficient breast milk

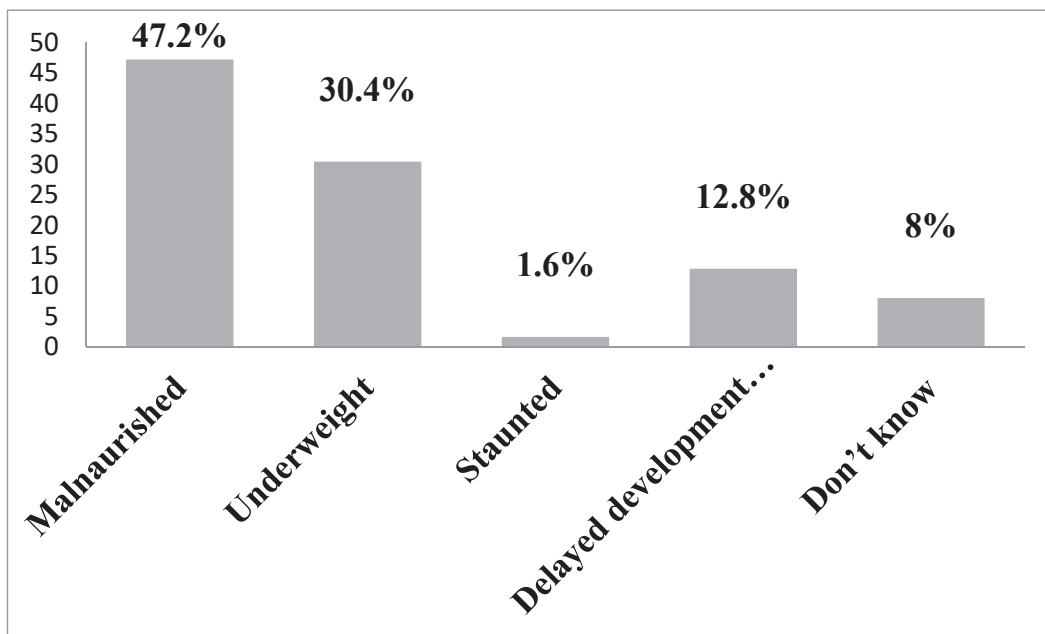


Figure 5: Distribution of the respondents according to consequences of inappropriate weaning food (n=125)

Out of 125 respondents, according to their consequences of inappropriate weaning foods, most 59(47.2%) said malnourished, 38(30.4%) said underweight, 16(12.8%) said delayed development of skills, 10(8%) they did not know and rest few 2(1.6%) said stunted growth

Discussion

A descriptive type of cross-sectional study was done to determine the knowledge, attitude and practice of weaning foods among mothers in a selected area of rural Bangladesh. A total of 125 rural mothers of Chandra gram village, Bajitpur, Kishoreganj were selected purposively.

Socio-demographic information:

Regarding age of the mother, out of 125 respondents, maximum 71(57%) were in the age group of 26-35 years, 31(25%) within 15-25, some 20(16%) were within 36-45 and a few 3(2.4%) were >45 years. According to the age of child, most 59(47%) were within 12-36 months, and then 28(22%) were >60 months, 23(18.4%) were within 37-60 months, and rest few 15(12%) were within <12 months. Regarding religion of the respondents, almost cent percent 123(98.4%) were Islam and a few 2(1.6%) were Hindu. Out of 125 respondents, most 111(88.8%) were housewife, and followed by 7(5.6%) were business and 7(5.6%) were teacher. Out of 125 respondents, most 54(32.0%) were SSC passed followed by (18.4%) were class 6-10, (16%) were graduate, (15.2%) were class 1-5 passed (9.6%) HSC passed, (4.8%) were illiterate and rest 2 (1.6%) was Master degree passed. Out of 125 respondents, most 62(49.6%) had more than 20000 taka monthly income and followed by 39(31.2%) had 10001-20000 taka, 22(17.6%) had 5000-10000 taka and rest few 2(1.6%) had less than 5000 taka.

Basic information:

Knowledge regarding weaning, out of 125 respondents, most 113 (90%) had an idea and rest few 12(10%) had no knowledge about weaning foods. Out of 125 respondents, most 111(89.0%) said nutrition for baby before starting weaning was breast feeding and rest 14(11%) said pre-lacteal feeding before weaning food start. Out of 125 respondents, regarding the reason of starting the supplementary food before 6 months majority 71.4% had lack of knowledge and rest 28.6% had not sufficient breast milk. Out of 125 respondents, most 96(76.8%) they gave complementary food, some 28(22.4%) gave other food and only 1(0.8%) they completed the cessation of breast feeding. Out of 125 respondents, majority 104(83.2%) gave colostrum, and

then some 20(16%)

gave honey, and only 1(0.8%) gave cow's milk. Out of 125 respondents, most 71(56.8%) of them said Khichuri and followed by 30(24%) said cow's milk, 12(9.6%) said banana, 9(7.2%) said Suji was the appropriate complementary food. Out of 125 respondents, almost 118(94.4%) said no and only few 7(5.6%) said practices of feeding in public places. Regarding breast feeding practices in isolated places, majority 117(93.6%) said Yes and only respondents 8(6.4%) said No. Out of 125 respondents, majority 91(72.8%) did not practice and 34(27.2%) practiced of pre-lacteal feeding. Out of 125 respondents, majority 102(81.6%) said No and only 23(18.4%) said Yes regarding apprehension while breast feeding. Out of 125 respondents, majority 118(94.4%) started weaning after 6 months of baby's age and rest few 7(5.6%) started before 6 months of age. Out of 125 respondents, majority 101(80.8%) fed the baby as baby wants and followed by 13(10.4%) gave 3-4 times per day and a few 11(8.8%) gave 5-6 times breast fed per day. Out of 125 respondents, most 54(43.2%) suggested on group discussion, 41(32.8%) said increase awareness, 17(13.6%) said role mass media and rest 13(10.4%) did not know regarding suggestion on awareness of weaning food. Out of 125 respondents, regarding the reason of starting the supplementary food before 6 months majority 71.4% had lack of knowledge and rest 28.6% had not sufficient breast milk. Out of 125 respondents, according to their consequences of inappropriate weaning foods, most 59(47.2%) said malnourished, 38(30.4%) said underweight, 16(12.8%) said delayed development of skills, 10(8%) they did not know and rest few 2(1.6%) said stunted growth. Exclusive breastfeeding is recommended worldwide as the ideal feeding for first six months of life. For successful lactation, timely initiation of breastfeeding i.e. within ½ hr. of normal delivery and within 4 hrs. of caesarean delivery is essential. In fact a recent study from Ghana found that 22% death among newborn can be prevented if they are given breastfeeding within one hour of birth³. In present study only half of the total mothers knew about this fact (57% urban and 46.7% rural). Likewise only 63.3% urban and 40% rural mothers knew about correct period of exclusive breastfeeding. As far as maximum period of breastfeeding (i.e. up to 2 years) is concerned, only

40% of urban and 36% of rural mothers were knowledgeable about it. This dismal picture about breastfeeding is reflected in other studies also. Karnawat et al (1987) did a study on knowledge and attitude of hospital employees of Jodhpur (Rajasthan) regarding infant feeding practices which revealed that nearly 66% doctors favored to initiate breastfeeding on first day while 60% paramedical and 96% class IV wished to start it on 2nd or 3rd day whereas in our study all mothers initiated breastfeeding on first day⁴. 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%)⁵. Whereas in our study it was 53.3%. Yadav et al (2004)⁶ conducted a KAP study about breastfeeding in Bihar. About 29% of mothers started breastfeeding within 24 hours. They also reported that most of the mothers in their study, breastfed their child up to more than 1 year of age⁶. Mehdi & Mahanta (2004) in their study on breastfeeding and weaning practices reported 100% breast feeding rate was maintained throughout 0 to 12 months. Exclusive breast feeding rate was 69.35% up to 6 months of age⁷. Kumar et al (2006) studied socio-economic correlates of breastfeeding in urban slums of Chandigarh and reported that 58.9% of the respondents initiated breastfeeding within six hours of birth⁸. Similar findings have been reported from other developing countries. Oomen et al (2009) did a longitudinal study on prevalence of exclusive breastfeeding and factors influencing it in urban and rural settings.

They reported very high (55%) use of formula feeds in urban mothers during hospital stay while none of the mothers in our study advocated formula feeds⁹. Ben Salma et al (2010) in their study in Riyadh, Saudi Arabia reported that 48.5% preferred mixed feeding followed by exclusive feeding (36.8%) and 40% did not initiate breastfeeding in the recommended time¹⁰. Yesildal et al (2012) in their study in Turkey reported that rate of exclusive breastfeeding was 22.4% and the rate of continued breast feeding up to 2 years was 10.0%¹¹. Complementary feeding Institution of complementary food is recommended at six months of age to meet the increased physiological requirements of the growing infant. Current study revealed that only

20% of total mothers (23.3% of urban and 16.7% of rural) were knowledgeable about correct age (i.e. 6 months) of start of complementary feeding. While a large majority (90% of urban mothers) knew that an infant at 1 yr. of age should be taking family pot feeding whereas only 56.7% or rural mothers knew this fact. Taneja et al (2003)⁵ in their study found that 40.6% infant's top milk or semisolids 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 feed⁵. Yadav et al (2004) in their study found that only 55% mothers introduced supplements to their infants between 6-12 months⁶. Similar observation was also made by Mehdi & Mahanta (2004)⁷.

It is a well-established fact that during the first 2-4 days of lactation, small quantities of colostrum which is rich in proteins and immunoglobulin should be fed to the baby. Karnawat et al (1987)⁴ in their study reported all class IV wished to discard colostrum which doesn't match to our study in which more mothers gave colostrum. Clock feeding was preferred by doctors (62%) and nurses (53.3%) while demand feeding was liked by 77% of Class IV and 55% auxiliaries⁴. Yadav et al (2004)⁶ in their study found that about two-third of mothers discarded the colostrum. About one-third of mothers discarded colostrum on the advice of others⁶. Kumar et al (2006)⁸ reported that only 15.9% discarded colostrum and 40% mothers gave prelacteal feeds. Illiterate mothers who delivered at home were found at significantly higher risk of delay in initiation of breastfeeding which were similar to our study⁸. Oomen et al (2009) in their study reported that the factors associated with continuation of exclusive breastfeeding were mother's knowledge regarding breastfeeding and reinforcement by health professionals whereas the factors associated with cessation were perceived insufficiency of milk and cultural practices which match our study⁹. Ben Slama et al (2010) reported that 43% of mothers did not know about colostrum¹⁰. The causes of delayed initiation of breastfeeding included the practice of discarding colostrum, waiting for appropriate time (muhurta) for initiation of breastfeeding or anchal kholna ceremony where the

family awaits the arrival of relatives for initiation of breastfeeding and the practice of giving prelacteal feeds to cleanse the gut¹. Practices related to infant feeding Present study highlights more frequent use of janam ghutti and animal milk dilution by rural mothers as compared to urban ones. Similarly Karnawat et al (1987) reported in their study that 79% of class IV employees gave janam ghutti and jaggery as prelacteal feed⁴. Ideally we should discourage the use of janam ghutti, gripe water or any other.

Conclusion

This study concludes that among rural mothers regarding knowledge about weaning. Majority they had been idea but starting supplementary food before 6 months because of lack of knowledge.

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