

Infant and Young Child Feeding by Mothers in a Selected Rural Area of Mymensingh.

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Abstract

This study was done to know about infant and young child feeding by mothers in a selected rural area of Mymensingh and to assess nutritional status of infant and young child. This was a descriptive cross-sectional study. The sample size was 625. Sample size and study area was purposively selected. The study was conducted from December 2016 to January 2017 in Churkhai and Winnerpar villages of Bhavokhali union of Sadar upazila Mymensingh. Data were collected on a predesigned questionnaire by direct interviewing the respondents. Data analysis was done by SPSS version 16. A total of 625 mothers who had one child aged between newborn to 24 months participated in the study. Age of mothers ranged from 15 years to 50 years. Mean age of mothers was 24.56 years and standard deviation 5.36 years. Most of the mothers belonged to 15 to 24 years of age. The age of children ranged from newborn to 24 months. Mean age of children was 15.16 months, standard deviation 7.51 months. Majority of children belonged to 19 to 24 months. Majority (54.72%) had normal nutrition. Breast feeding continued up to the age when interviewed, offering colostrums and breast feeding given within half an hour after delivery were excellent among 63.36% of mothers. Weaning in due time, appropriate servings and weaning food appropriate were excellent among 74.80% of mothers of weaning age child. Exclusive breast feeding 74.02% and breast feeding continued up to the age of 24 months were 79.33% were good. Infant and Young Child Feeding practices observed in this study though better than other studies, needs more attention for improved child nutrition and survival

. CBMJ 2016 July: Vol. 05 No. 02 P: 21-25

Key-words: Infant and Young Child/ Infant and Young Child Feeding/Mothers /Rural area/Mymensingh.

Introduction

Infant is a young baby from birth to 12 months of age. Infants include newborn (first 28 days of life) and post-neonatal period. Young Child is from 12 month to 24 months.^{1, 2, 3.} ⁴Appropriate feeding practices are essential for proper nutrition, growth, development and survival of infant and young children. The feeding practices which include breast feeding as well as complementary feeding are collectively known as Infant and Young Child Feeding (IYCF).⁵ Infants should be breast fed within half an hour of birth, exclusively breast fed for the first six months of life, and thereafter should receive nutritionally adequate and safe complementary foods while breast feeding continues up to two years and beyond.⁶ Child survival study group found 13% of estimated under 5 deaths prevented by exclusive breast feeding for 6 months and further 6% deaths by complementary feeding. Exclusive breast feeding and breast feeding continued up to 24 months has sufficient evidence of effect on diarrhea, pneumonia and neonatal sepsis, complementary feeding has sufficient evidence of effect on diarrhea, pneumonia and measles.

Diarrhea (22%), pneumonia (21%) were the leading causes of under 5 deaths in 2000.⁷ An Indian study showed that 22% of all neonatal deaths could be prevented if all women would have initiated breast feeding within one hour of birth.⁸ We have selected rural area because 66% of population in Bangladesh lives in rural areas.⁹ The providers of Infant and Young Child Feeding are women of reproductive age group which constitute 28% of population (43.9 million)¹⁰ and beneficiaries are children from newborn to 24 months, who are a part of

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under-five population which is about 10% of population (15.1 million).¹⁰ In Bangladesh overall only 23% of children age 6-23 months are fed appropriately based on infant and young child feeding practices recommendation.¹¹ This study was undertaken to know about demographic, socioeconomic characteristics of child, mother and family, hygiene practices of mother, place and type of delivery, infant and young child feeding provided by them.

Methods

This was a cross-sectional descriptive study. Sample size was 625; sample size and study area was purposively selected. 625 mothers who had one child aged between newborn to 24 months participated in the study. The study was conducted from December 2016 to January 2017 at Churkhali and Winnerpar Villages of Bhavokhali union. Data were collected on a pre-designed questionnaire by direct interviewing the respondents. Informed consent was taken. Weights of children were measured for assessment of nutritional status. The data were entered and analyzed by SPSS version 16.

Results

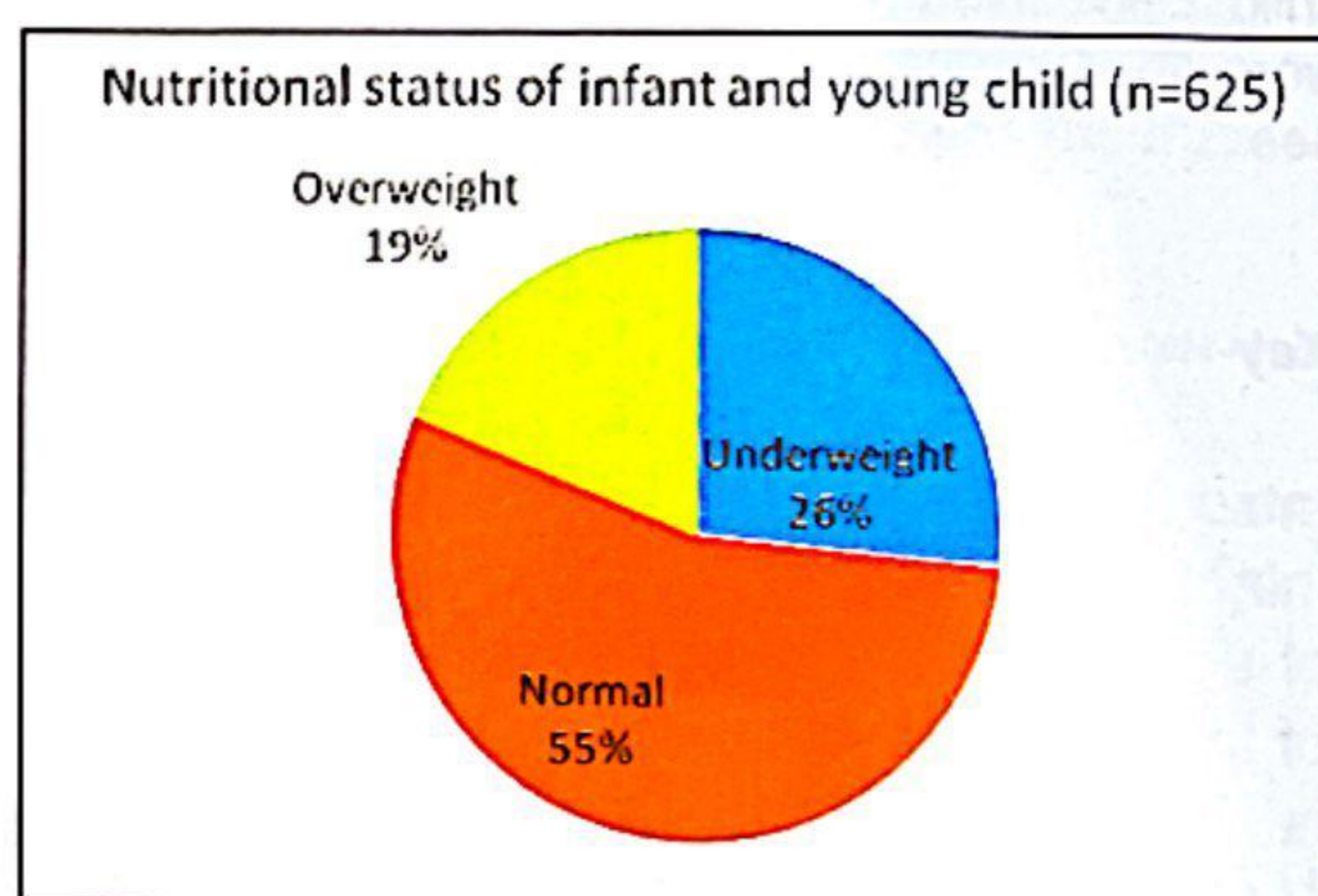
625 mothers who had one child aged between newborn to 24 months participated in the study. The age of children ranged from newborn to 24 months. Mean age was 15.18 months, standard deviation 7.49 months. Majority of children belonged to 19 to 24 months. Boys (319/625) (51.04%) were predominant than girls (306/625) (48.96%). Male: female ratio 104.25:100. Table I shows age and sex distribution of infant and young child.

Table I: Age and Sex Distribution of Infant and Young Child.

Age	Sex		Total
	Male	Female	
	Frequency	Frequency	Frequency
Birth to 6 months	44 (7.04%)	69 (11.04%)	113 (18.08%)
7-12 months	81 (12.96%)	73 (11.68%)	154 (24.64%)
13-18 Months	53 (8.48%)	55 (8.80%)	108 (17.28%)
19-24 months	141 (22.56%)	109 (17.44%)	250 (40.00%)
Total	319 (51.04%)	306 (48.96%)	625 (100.00%)

Age of mothers ranged from 15 years to 50 years. Mean age 24.56 years and standard deviation 5.36 years. Most of the mothers belonged to 15 to 24 years (341/625) (54.56%), literate (516/625) (82.56%), housewife (588/625) (94.08%), belonged to middle class family (354/625) (56.64%). Number of children per family was 2.00. Half of the children were infant and young child (625/1248) (50.08%). Majority (342/625) (54.72%) had normal nutrition. (166/625) (26.56%) children were underweight and (117/625) (18.72%) were overweight. Figure 1 shows nutritional status of infant and young child.

Figure 1: Pie chart showing nutritional status of infant and young child.



Most of the mothers (97.92%) had excellent hygiene practice: daily bathing 97.12%, hand washing before taking meal 98.72%, after defecation 98.88%, after cleaning child 97.44% and before preparing food 97.60%. Poor hygiene status was influenced by literacy (1.83% among illiterates than nil among literates) and socioeconomic condition (0.75% among poor than nil among middle class family and rich family). Most of the deliveries were conducted at home (76.96%). Most of the deliveries were normal (84%). All the deliveries conducted in home were normal deliveries (481/481) (100%). Most of the hospital deliveries were cesarean deliveries (99/144) (68.75%). Breast feeding continued up to the age when interviewed, offering colostrums and breast feeding given within half an hour after delivery were excellent. Practice of not giving honey was good. Breastfeeding practice was not influenced by

literacy (poor breast feeding 5.50% among illiterates and 6% among literates) and socioeconomic condition (poor breast feeding 5.28% among poor, 6.21% among middle class and 16.67% among rich. Exclusive breast feeding and breast feeding continued up to the age of 24 months were good. Weaning in due time, appropriate servings and weaning food appropriate were excellent. Weaning practice was influenced by literacy (poor weaning 10.75% among illiterate than 8.59% among literates) and socioeconomic condition (poor weaning 10.82% among poor than 7.55% among middle class and nil among rich. Table II shows infant and young child feeding practices of mother.

Table II: Infant and Young Child Feeding practices of mother.

Infant and young child feeding practice	Frequency	Percentage
Breast feeding continued up to the age when interviewed (n=625)	586	93.76
Colostrums (n=625)	618	98.88
Breast feeding given within half an hour after delivery (n=625)	548	87.68
Not giving honey (n=625)	475	76.00
Exclusive breast feeding (n=512)	379	74.02
Breast feeding continued up to the age of 24 months (n=150)	119	79.33
Weaning in due time (n=512)	412	80.47
Weaning servings appropriate (n=512)	488	95.31
Weaning food appropriate (n=512)	485	94.73

Discussion

The sample constituted mothers of reproductive age group who have a child from newborn to 24 months. They live in Churkhai and Winnerpar villages of Bhabkhali union. Churkhai is a village of Bhabkhali union. It has 1889 households with population of 8791. Winnerpar is also a village of Bhabkhali union with 883 households with 4694 population.¹² In this study literacy rate among mothers was 82.56% and population below poverty line was 42.40%. In BUHS study¹³ most of children belonged from newborn to 6 months (52.7%) and male: female ratio 85.19: 100, the mean with standard deviation of mothers was 25.3 yrs with 4.7 yrs. In Bangladesh, Sex ratio¹⁴ under 15 is 103:100. In another BUHS study¹⁵

the mean with standard deviation of mothers was 24.44 years with 4.93 years, 84% were housewife. In Bangladesh total fertility¹¹ rate is 2.3. Literacy was better than BBS survey (rural literacy 47.90%)¹⁶ whereas poverty status was worse. Population below poverty line in 2010 was 31.50 per cent,¹⁷ stood at 25.60 per cent¹⁸ in June 2014.

In our study 26.56% infant and young child were underweight which is better than national prevalence 33% for under-five child,¹¹ US-Indian study¹⁹ on Bangladeshi infant and young child 34.75% and also better than India (48% of children less than 3 years are underweight)²⁰ but worse than BUHS, Dhaka study 16% had moderate underweight, 6% severe underweight.¹³

In our study, hygiene practices of mother were excellent: daily bathing (97.12%), hand washing before taking meal (98.72%), after defecation (98.88%), after cleaning child (97.44%) and before preparing food (97.60%). However they cannot use soap everyday due to financial constraint. In Kakabo, Dhaka 3 year close observation study, (5/6) (83.33%) take bath daily and most of the time they use soap during bathing.²¹ In BUHS study¹³, the prevalence of hand washing practice properly was 76%. In Bangladesh, only 26.7% wash their hands with water, soap or ash after defecation and 3% wash their hands with soap and water before having a meal, feeding children and preparing food.²²

In our study (144/625) (23.04%) had hospital delivery which is lower than national average 37.4%. In our study (99/144) (68.75%) hospital deliveries had cesarean section which is more than national scenario 23% cesarean delivery in 37.4% hospital delivery i.e. 60% of hospital deliveries are cesarean deliveries.¹¹

In our study breast feeding continued up to the age when interviewed (93.76%), offering colostrums (98.88%) and breast feeding given within half an hour after delivery (87.68%) were excellent. Practice of not giving honey was good (76%). Breast feeding practices are better than national and international scenario. In Bangladeshi studies initiation of breast feeding within one hour after birth ranged from

31.8 percent to 67.3 percent (the cited figures being 31.8, 51, 56.54, 67.3)^{11, 13, 15, 23}. In a Bangladeshi study 98% continued breast feeding and 75.92% offered colostrums.²³ According to national survey report 27% receive a pre-lacteal feed.¹¹ Timely initiation of breast feeding among nine East and Southeast Asian countries varied from 32% in Indonesia to 46% in East Timor.²⁴ The practice of breast feeding is increasing day by day throughout the world. The incidence of breastfeeding has increased from 2005 to 2010 in England (78% to 83%), Scotland (70% to 74%), Wales (67% to 71% and Northern Ireland (63% to 64%) as well as in UK level (76% to 81%).²⁵

In our study, exclusive breast feeding practice was (379/512) (74.02%) which is better than national and international scenario. Factors influencing exclusive breast feeding were age of child 13-18 months, male child, age of mother 25-34 yrs, illiterate mother, poor family, home delivery, normal delivery and forceps delivery. In Bangladeshi studies exclusive breast feeding (EBF) practice ranged from 55 percent to 86.4 percent (the cited figures being 55, 70.68, 82.7, 86.4).^{11, 13, 23, 26} EBF practice ranged from 11 percent to 60 percent among East and Southeast Asian countries (the cited figures Myanmar 11, Vietnam 15.5, Lao PDR 23, Indonesia, Philippines, Timor 30-40 and Cambodia 60).²⁴ In African studies the practice ranged from 30.1 to 79 (the cited figures being Zambia 30.1, Ethiopia 78, 79).²⁷⁻²⁹ In an Ethiopian study factors influencing EBF were mother's age, education, income, employment, antenatal care, availability of pre-lacteal feeding, infant's age, delivery place and information access.²⁸ Worldwide 34.8% of infants are exclusively breast fed and there is global improvement between 1996 to 2006 from 33% to 37% (Sub Saharan Africa from 22 to 30, Europe from 10 to 19, Latin America from 30 to 45).³⁰

In our study weaning in due time (80.47%), appropriate servings (95.31%) and weaning food appropriate (94.73%) were excellent. Commonly consumed complementary foods among different age groups of children

included boiled rice, suzi, diluted dal, boiled egg, smashed potato, cow's milk with humanization and khichuri. Green leafy vegetables, fruits, fish and meat were not served daily. BDHS 2014 reports that complementary foods are often introduced too early and too late and are often inadequate and unsafe.¹¹ In BUHS, Dhaka study¹³ timely starting of weaning food was 83%. Complementary feeding with breast feeding reported to be 70% in one study and 76% in another study.^{11, 26} In Asia timely complementary feeding rate varied widely across countries (6-99%).²⁴ Interventions can improve IYCF practices. One year survey 2014-15 in 255 villages of Shikha USAID intervention area showed progress from baseline survey 2013. The interventions were home visits, community mobilization, health forums, antenatal and postnatal sessions and media campaign. Early initiation of breastfeeding increased from 61.8% to 83.1%, exclusive breast feeding increased from 78.4% to 85.4%, initiation of complementary feeding from 60% to 82.7%, minimum diet diversity from 20.6% to 56.6% and minimum meal frequency from 68.4% to 87.1%.³¹

Conclusion

Infant and Young Child Feeding practices observed in this study in a rural area though better than national and international scenario; needs more attention for improved child nutrition and survival.

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