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Knowledge and Practice about Pre-lacteal Feeding and Weaning of Mother's in a Slum Area in Rajshahi, Bangladesh

Md. Ataur Rahman[1], Most. Zosnara Khatun[2], Prof. (Dr.) Jawadul Haque[3]

[1]Medical officer Alternative Medical Care, Rajshahi Medical College Hospital Rajshahi, Bangladesh.

[2]Nursing Instructor, Rajshahi Nursing College, Rajshahi, Bangladesh.

[3]Professor and Head (EX), Department of Community Medicine, Rajshahi Medical College, Rajshahi, Bangladesh.

ABSTRACT

Background: A pre-lacteal feed is any food other than mother's milk provided to a new-born before breastfeeding begins. It has an effect on the timing of breastfeeding initiation and exclusive breastfeeding activities. Pre-lacteal feeding decreases the immunological benefits derived from colostrum while also increasing the risk of infection. Pre-lacteal feeding is a dangerous infant feeding technique that is commonly used in the developing world, including Bangladesh. The present study might help us to become well aware of the correct weaning practices by the rural mothers, their beliefs and their customs and thus may guide us regarding the ways to improve the nutritional status of the rural children as well as to improve the knowledge and practice regarding pre-lacteal feeding and weaning of the mothers.

Materials and Methods: This was a cross-sectional type of descriptive study carried out with a view to assess knowledge and practice about pre-lacteal feeding and weaning of the mothers living in slums areas in Rajshahi, Bangladesh, duration was 8 months from May, 2014 to December, 2014. All the mothers living in slum areas in Rajshahi constituted the study population, sample size was 350 and purposive sampling technique was followed. A partially structured questionnaire duly pre-tested was used to collect data by face to face interview.

Results: In this study most (57.7%) of the respondent had two children, (48.6%) mentioned honey as pre-lacteal food, (47.5%) of the respondents told that pre-lacteal feeding was given due to tradition and (49.7%) considered malnutrition as the effect of not giving colostrum's. Regarding time of weaning, (55.7%) of the respondents mentioned that the babies should be weaned at the time of more than 6 months, hotchpotch (khichuri) was considered as common weaning food consisting of (40.0%). About 49.0% of the respondents considered malnutrition as the effect of improper weaning, most (67.6%) of the respondents considered honey as pre lacteal food and hotchpotch (37.8%) was regarded as the common type of weaning food, most (73.71%) of the respondents knew about pre-lacteal food, weaning was known to almost all (99.14%) of the respondents, pre-lacteal food was given to the baby by majority (73.14%) of the respondents and almost all (99.71%) of the respondents weaned their babies. There was relationship between occupation of the respondent's husband and giving pre-lacteal food to their babies ($p < 0.05$).

Conclusion: Pre-lacteal feeding was found to be more prevalent in slums in Rajshahi. Pre-lacteal feeding activity was closely linked to lower levels of schooling, increased family size, failure to attend ANC, and refusal to feed colostrum. As a result, improving mothers' educational status, reducing family size, encouraging ANC follow-up, and colostrum feeding are all effective ways to avoid prelacteal feeding.

KEYWORDS: Knowledge, Practice, Pre-lacteal feeding, Weaning, Mother's, Slum, Rajshahi and Bangladesh.

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I. INTRODUCTION

Pre-lacteal feeds are very common and are an important factor in delaying the initiation of breast feeding. These delay the milk let-down reflex and could contribute to lactation failure. Hence patient education should include curtailing the use of pre lacteal feeds in addition to promoting early initiation of breast feeds'. Appropriate breast feeding and weaning practices have great impact on the health of infants. Breast feeding still remains the preferred way for the majority of Pakistani women, however, inappropriate practices such as provision of pre-lacteal feeds, discarding the colostrum's and delayed initiation of breast milk are widespread. Thus it is essential that weaning is appropriately time nutritionally adequate, hygienically prepared and culturally acceptable [1]. A cross-sectional household study was done to assess feeding practices of infants and young children in rural areas of Medak district, Andhra Pradesh [2]. Breastfeeding is one of the most important determinants of child survival, birth spacing, and the prevention of childhood infections. The beneficial effects of breastfeeding depend on its initiation duration, and the age at which the breastfed child is weaned. Breastfeeding practices vary among different regions and communities [3]. The impact of wider governmental policies on food security needs to be further assessed [4]. The practice of giving pre-lacteal feels is a key determinant of early cessation of fall breastfeeding [5].

This study further re-iterates the importance of health education and antenatal programs that promote exclusive breastfeeding and discourage the practice of prelacteal feeding. Health institutions and related stakeholders need to examine how they can increase attendance of antenatal care visits which is linked to improved EBF rates. Strengths and limitation of the study [6]. Pre-lacteal feeds are those foods given to new-borns before breastfeeding is established or before breast milk "comes in," usually on the first day of life. Pre-lacteal foods include honey, semi liquid hotchpotch, jaggery, ghee, half boiled egg and ghutti (herbal paste). The choice of pre-lacteals may be specific to a caste or family [7]. Mothers' poor knowledge and negative attitude towards breastfeeding may influence practices and constitute barriers to optimizing the benefits of the baby-friendly initiative. Breastfeeding creates an inimitable psychosocial bond between the mother and baby, enhances modest cognitive development and it is the underpinning of the infant's wellbeing in the first year of life even into the second year of life with appropriate complementary foods from 6 months. Furthermore, breastfeeding reduces the risk of neonatal complications, respiratory and other varieties of illnesses [8].

The present study might help us to become well aware of the correct weaning practices by the rural mothers, their beliefs and their customs and thus may guide us regarding the ways to improve the nutritional status of the rural children as well as to improve the knowledge and practice regarding pre-lacteal feeding and weaning of the mothers. The proposed study is unique in the concerned area. No such in-depth study has been carried out so far by any researcher in any related field. So, it will be, as expected, an innovative work on the outcome to strengthen the knowledge and practice regarding pre-lacteal feeding and weaning of the mothers. This study could high light the present situation of the average well-being of the new-born in our country so that it might help the concerned authority to take appropriate measures for improving this condition.

1.3 Research question:

What is the level of knowledge of the mothers living in slums in Rajshahi regarding pre lacteal feeding and weaning'?

1.4 Objectives:

1.4.1 General objective-

The study was carried out with a view to assess knowledge and practice regarding pre-lacteal feeding and weaning of the mothers living in slums in Rajshahi.

1.4.2 Specific objectives

- To assess knowledge on pre-lacteal feeding of responding mothers living in slums in Rajshahi.
- To assess knowledge on weeing of responding mothers living in slams in Rajshahi
- To assess practices of pre-lacteal feeding of the responding mothers.
- To asses practices of weaning of the responding smothers
- To find out socio-demographic characteristics of the responding mothers
- To find out the relationship of knowledge of mothers on weaning with their socio-demographic characteristics.
- To find out the relationship between practice of mothers on pre-lacteal fending and their socio-demographic characteristics.

II. MATERIALS AND METHOD

2.1 Type of study: This was a cross-sectional type of descriptive study.

2.2 Place of study: The study was carried out in slum areas in Rajshahi Bangladesh.

2.3 Duration of the study: This research work was a part of Master of Public Health (MPH) program of Northern University Bangladesh with duration of 8 months from May, 2014 to December, 2014.

2.4 Study population: All the mothers living in slum areas in Rajshahi constituted the study population.

2.5 Sample size: The sample size of this study was 350.

2.6 Determination of sample size: The sample size was determined by using the following formula:

Sample size, n= (z2 pq)/d2.

Where, p = Response distribution i.e., proportion of factor in the population or the expected frequency value, q = 1-p, d = Margin of error is the amount of error that one would tolerate. Z = Area under normal curve corresponding to the desired confidence level (CI) and it is the amount of uncertainty that one can tolerate.

Now, for the present study, Z = 1.96 at 95% CI, p = 0.6 (Prevalence of knowledge of mothers on pre-lacteal feeding), q = 0.4 and d = 0.05, n [(1.96)2 (0.6) (0.4)]/ (0.05)2 = 368

Total sample size taken for this study was 350.

2.7 Sampling technique: Purposive sampling technique was followed.

2.8 Data collection instruments: A partially structured questionnaire duly pre-tested was used to collect data from the respondents.

2.9 Data collection procedure: The researcher himself collected data from the mothers living in the slum areas on the bank of the river Padma in Rajshahi by face to face interview. Data were collected from 10 respondents in each day and data were collected in 5 working days in a week. For open questions, the respondents were asked 3 manner so that they could speak freely and explain their opinion in a normal and neutral way. No leading questions were asked.

2.10 Inclusion criteria of the respondents:

All the mothers living in the slum area in Rajshahi.

2.11 Exclusion criteria:

Unwilling to participate in the study.

2.12 Data analysis: After proper verification, data were coded and entered into the computer by using SPSSPC program. Data were analyzed according to the objectives of the study by using SPSSPC+ software computer program. Descriptive variables were explained with mean and standard deviation. Statistical significance was found by applying relevant statistical tests at appropriate probability level (p=0.05 or p=0.01)

2.13 Ethical consideration: Prior to the commencement of the study, the research protocol was approved by the research committee (Local ethical committee). The aim and objectives of the study along with its procedure, risks and benefits of the study were explained to the respondents in easily understandable language and then informed consent was taken from each respondent. Then it was assured that all information and records would be kept confidential and the procedure would be used only for research purpose.

III. RESULT

Table 1: Represented distribution of the respondents by demographic characteristics. Regarding age distribution of the respondents it was found that out of 350 respondent's 46.9% were in the age group of 25-29 years and 26.06% were in the age group of 20-24 years, followed by 23.71% in the age group of 30 years and above and the rest few 3.4% comprised age group of 15-19 years. The mean age of the respondents was 26.43 ± 3.60 years. Most 92% had educational level of class VI-XII and 8% had up to class V. It was found that majority 89.1% of the respondents took housework as occupation, 9.1% belonged to occupation of service followed by day labor 1.1% and a very few 0.6% business respectively. Out of 350 respondents 26.9% belonged to occupation of service followed by day labor 24.9% as well as 23.4% business, others 19.1% and a few 5.7% were famer. Maximum 88.3% respondents were Muslim, followed by Hindu, Others and Christian were 5.7%, 4.3% and 1.7% respectively. Maximum 58.0% came from nuclear family and the rest 42.0% belonged to joint family. Majority 76.0% of the respondents had monthly family income of Taka 5000-10000 as well as 18.3% belonged to income group of Taka more than 10000 and a few 6.7% had monthly family income of Taka less than 5000. The average monthly family income was Tk. 5997. 16 ± 3588.19. It was found that majority 57.7% had two children, 34.0% one children and 8.3% three children.

Table 1: Distribution of the respondents by demographic characteristics (n=350)

Variable	Characteristics	Frequency (n)	Percentage (%)
Age (in years)	15-19	12	3.4
	20-24	91	26.0
	25-29	164	46.9
	30 and above	83	23.7
	Mean = 26.43years, S.D = ±3.60		
Educational qualification	Class VI-XII	92.0%	322
	Up to class V	8.0%	28
Occupation	Housewife	312	89.1
	Service	32	9.1
	Business	02	0.6
	Day labor	04	1.1
Husband's occupation	Farmer	20	5.7
	Service	94	26.9
	Business	82	23.4

	Day labor	87	24.9
	Others	67	19.1
Religion	Muslim	309	88.3
	Hindu	20	5.7
	Christian	06	1.7
	Others	15	4.3
Type of family	Nuclear	203	58
	Joint	147	42
Monthly family income	Less than Taka 5000	20	5.7
	Taka 5000 - 10000	266	76.0
	More than Taka 10000	64	18.3
Number of children	1	119	34.0
	2	202	57.7
	3	29	8.3

Table 2: shows of the respondents by knowledge about pre-lacteal food. It was found that out of 350 respondents 48.6% mentioned honey as pre-lacteal food and 24.9% did not know pre-lacteal food. It was also observed that glucose, sugar, water and cow's milk was considered by 11.45% 10 9% and 2.0% respectively. About reasons of giving pre-lacteal feeding it was revealed that 47.5% of the respondents told that pre-lacteal fending was given due to tradition, 34.5% respondent's didn't know the reasons of giving pre- lacteal feeding, breast milk not yet produced and child to have good health constituted 15.7% and 2.3% respectively. Regarding effect of not giving colostrum's it was revealed that malnutrition, weakness and not known was mentioned by 49.7%, 33.7% and 16.6% of the respondents. Regarding time of weaning 55.7%, 39.1%, 4.0% and 1.1% of the respondents mentioned that the babies should be weaned at the time of more than 6 months, at 6 months, at 5 or less than 5 months and did not know. We found that hotchpotch, others, cow's milk, powder milk, dal-vat and multiple food was considered as common weaning food consisting of 40.0%, 369%, 12.0%, 4.9%, 4.3% and 2.0% respectively. Effect of improper weaning it was revealed that malnutrition, weakness and not known trouble in growth and multiple factors was mentioned by 49.1%, 35.1%, 8.9%, 5.4% and 0.3% of the respondents. Regarding type of pre-lacteal food it was found that honey, glucose, water, ghuthy, cow's milk and sugar was considered by 67.6%, 27.0%, 2.3%, 2.0% and 1.2% of the respondents. Regarding type of weaning food it was found that hotchpotch, sui, cow's milk, dal-vat and chatu was considered by 37.8%, 32.4%, 12.6%, 7.4% and 4.0% of the respondents respectively.

Table 2: Distribution of the respondents by knowledge about pre-lacteal food (n=350)

Variable	Characteristics	Frequency (n)	Percentage (%)
Name of the **pre-lacteal food**	Honey	170	48.6
	Cow's milk	7	2.0
	Glucose water	40	11.4
	Sugar water	38	10.9
	Others	8	2.3
	Don't know	87	24.9
Reasons of giving pre-lacteal feeding	Breast milk not yet produced	41	15.7
	Due to tradition	124	47.5
	Child to have good health	6	2.3
	Others	90	34.5
Effect of not giving colostrum's	I don't know	58	16.6
	Malnutrition	174	49.7
	weakness	118	33.7
Mentioning time of weaning	≤5 months	14	4.0
	6 months	137	39.1
	>6 months	195	55.7
	Don't know	4	1.1
Common weaning food	Cow's milk	42	12.0
	Powder milk	17	4.9

	Dal-vat	15	4.3
	Hotchpotch (Khicuri)	140	40.0
	Others	129	36.9
	Multiple	7	2.0
Effect of improper weaning	I don't know	31	8.9
	Malnutrition	172	49.1
	Weakness	123	35.1
	Anemia	1	0.3
	Trouble in growth	19	5.4
	Multiple	4	1.1
Type of weaning food	Honey	173	67.6
	Cow's milk	5	2.0
	Glucose water	69	27.0
	Ghuthy	6	2.3
	Sugar	3	1.2
Type of pre-lacteal food	Suzi	113	32.4
	Cow's milk	44	12.6
	Dal-vat	26	7.4
	Hotchpotch	132	37.8
	Powder milk	14	4.0
	Chatu	14	4.0
	Sagu	1	0.3
	Multiple	5	1.4

Figure 1 shows of the respondents by knowing pre-lacteal feeding. It was revealed that pre-lacteal feeding was known by majority 73.71% of the respondents and rest of them 26.29% didn't know.

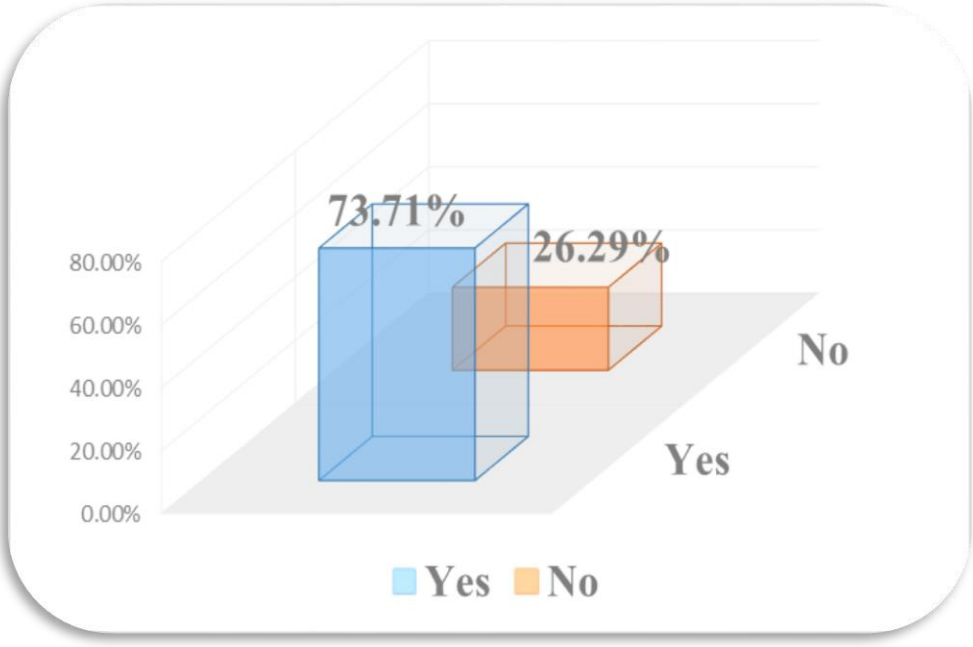

Figure 1: Distribution of the respondents by knowing pre-lacteal feeding (n=350).

Figure 2 shows of the respondents by giving colostrum's to the baby. It was revealed that colostrum's were given to the baby by 96% of the respondents and rest of them 4.0% didn't given.

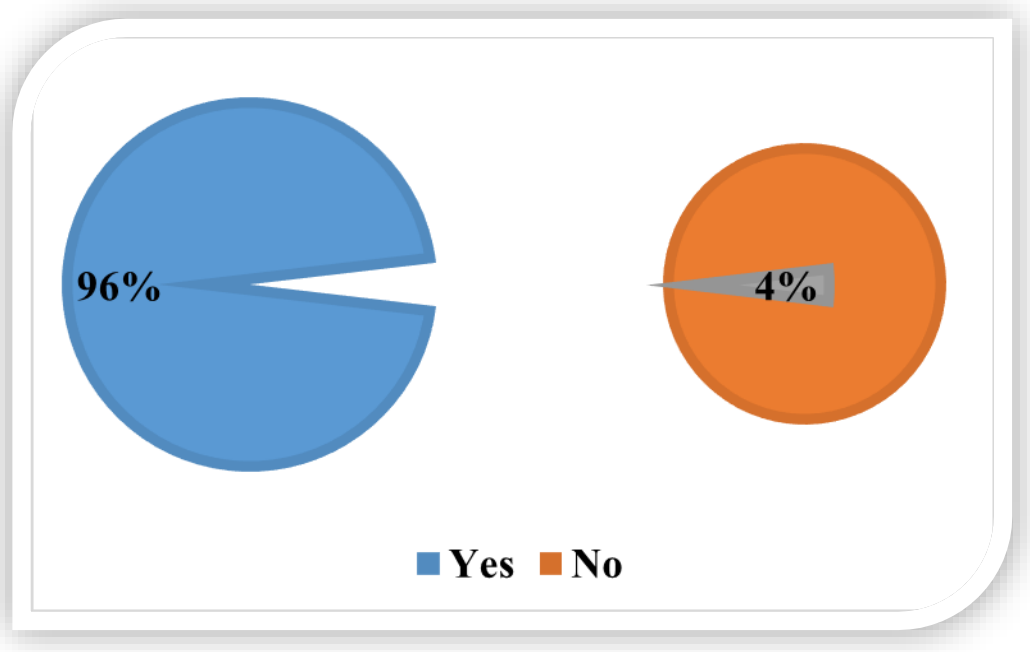

Figure 2: Distribution of the respondents by giving colostrum's to the baby (n=350).

Figure 3 shows of the respondents by knowing weaning. It was found that weaning was known to almost all 99.0% of the respondents and a very few 1.0% didn't know.

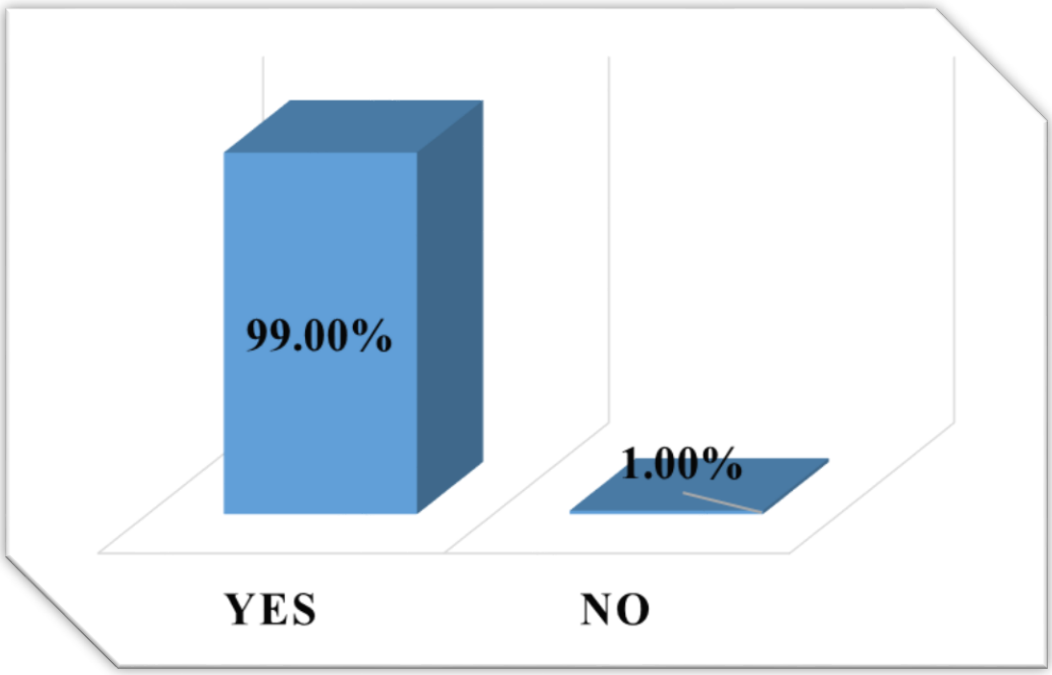

Figure 3: Distribution of the respondents by knowing weaning (n=350).

Figure 4 shows of the respondents by giving pre-lacteal feedings. Pre-lacteal food was given to the baby by majority 73% of the respondents and 27% didn't give pre-lacteal food to their baby.

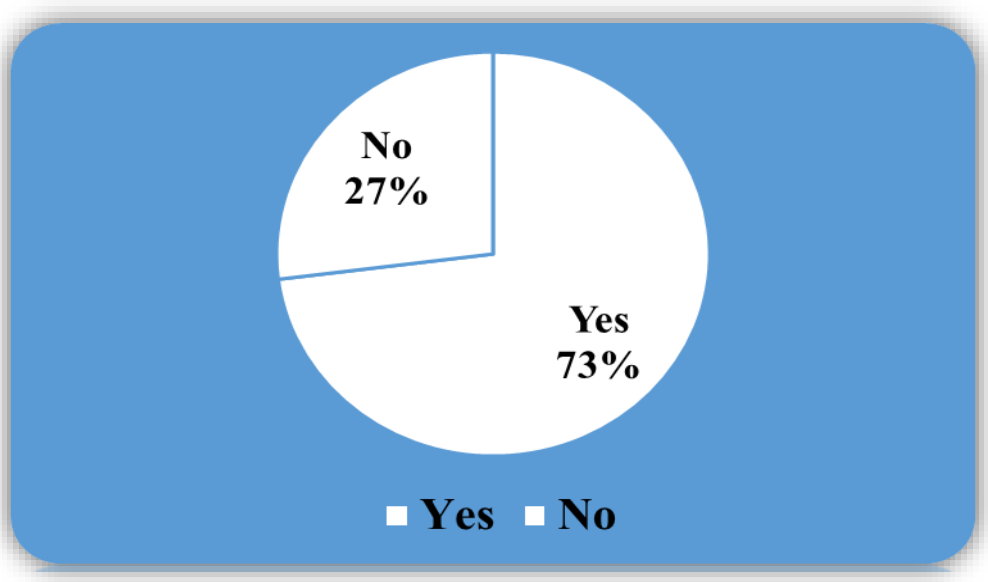

Figure 4: Distribution of the respondents by giving pre-lacteal feedings (n=350).

Figure 5 shows of the respondents by weaning their babies. It was found that almost all 99.71% of the respondents weaned their babies and a very few 0.29% didn't weaned.

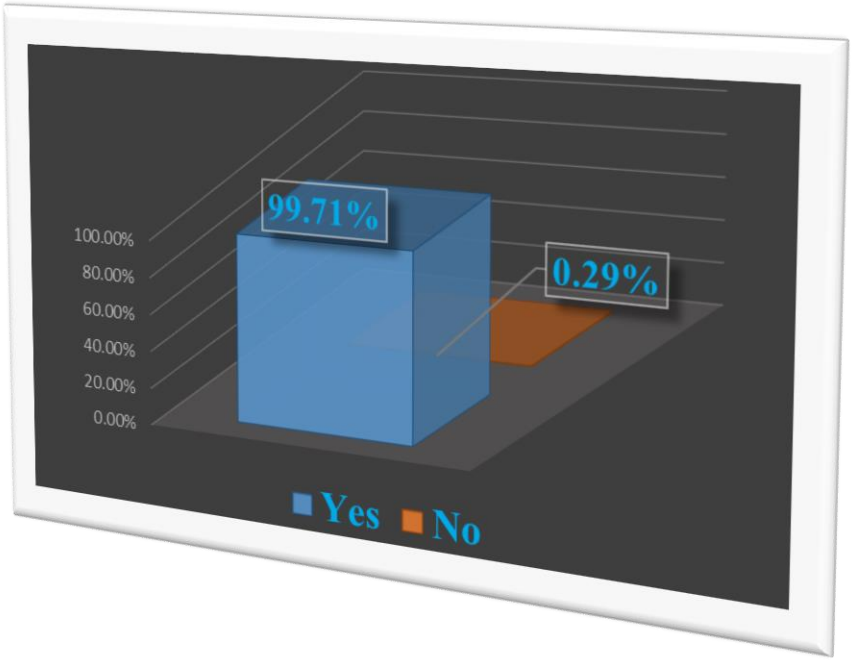

Figure 5: Distribution of the respondents by weaning their babies (n=350).

Table 3: Shows relationship between socio-demographic characteristics and knowing pre-lacteal food/feeding of the respondents. We found that there was no statistically significant relationship between socio-demographic characteristics and knowing pre-lacteal food/feeding of the respondents ($p > 0.05$).

Table 3: Relationship between socio-demographic characteristics and knowing pre-lacteal food/feeding of the respondents.

Variables	Characteristics	knowing pre-lacteal food / feeding		Total (%)	Statistics
		Yes	No		
		N (%)	N (%)		
Age group	15-19 years	10 (83.3)	2 (16.7)	12(3.4)	$\chi 2 = 8.32$, df = 3,
	20-24 years	75 (82.4)	16 (17.6)	91 (26.0)	

	25-29 years	120 (73.2)	44 (26.8)	164(46.9)	P > 0.05
	30 years & above	53 (63.9)	30 (36.1)	83 (23.7)	
	Total	258 (73.7)	92 (26.6)	350 (100.0)	
Education of respondents	Up to class V	22 (78.6)	6 (21.4)	28 (8.0)	$\chi 2$ 37.1, df= 1, p > 0.05
	Class VI-XII	236 (73.3)	2 (2.9)	322 (100.0)	
	Total	258 (73.7)	92 (26.3)	350 (100.0)	
Type of family	Nuclear	149 (73.4)	54 (26.6)	203 (58.0)	$\chi 2$ 0.025, df= 1, p > 0.05
	Joint	109 (74.1)	38 (25.9)	147 (42.0)	
	Total	258 (73.7)	92 (26.3)	350 (100.0)	
Monthly family income	Less than Tk 5000	12 (60.0)	8 (40.0)	20 (5.7)	$\chi 2$ 7.38, df= 2, p > 0.05
	Tk 5000-10000	191 (71.8)	75 (28.2)	266 (76.0)	
	More than Tk 10000	55 (85.9)	9 (14.1)	64 (18.3)	
	Total	258 (73.7)	92 (26.3)	350 (100.0)	

Table 4: Shows relationship between socio-demographic characteristics of the respondents and giving pre-lacteal food to their baby. This study revealed that there was no statistically significant relationship between socio-demographic characteristics and giving pre-lacteal food to their baby of the respondents (p > 0.05).

Table 4: Relationship between socio-demographic characteristics of the respondents and giving pre-lacteal food to their baby.

Variables	**Characteristics**	**Giving pre-lacteal food to their baby**		**Total (%)**	**Statistics**
		Yes	No		
		N (%)	N (%)		
Education of respondents	Up to class V	20 (71.4)	8 (28.6)	28 (8.0)	$\chi 2$=4.6, df= 1, p > 0.05
	Class VI-XII	236 (73.3)	86 (26.7)	322 (100.0)	
	Total	255 (73.1)	94 (26.9)	350 (100.0)	
Occupation of respondents	House wife	223 (71.5)	89 (28.5)	312 (89.1)	$\chi 2$=4.6, df= 1, p > 0.05
	Service	29 (90.6)	3 (9.4)	32 (9.1)	
	Business	1 (50.0)	1 (50.0)	2 (0.6)	
	Daylabor	3 (75.0)	1 (25.0)	4 (1.1)	
	Total	256 (73.1)	94 (26.9)	350 (100.0)	
Religion	Islam	226 (73.1)	83 (26.9)	309 (88.3)	$\chi 2$=5.42, df= 3, p > 0.05
	Hindu	13 (65.0)	7 (35.0)	20 (5.7)	
	Christian	3 (50.0)	3 (50.0)	6 (1.7)	
	Others	14 (93.3)	1 (6.7)	15 (4.3)	
	Total	256 (73.1)	94 (26.9)	350 (100.0)	
Type of family	Nuclear	149 (73.1)	54 (26.6)	203 (58.0)	$\chi 2$=0.016, df= 1, p > 0.05
	Joint	107 (72.8)	40 (27.2)	147 (42.0)	
	Total	256 (73.1)	94 (26.9)	350 (100.0)	

IV. DISCUSSION

This descriptive cross sectional study was carried out with a view to assess knowledge and practice regarding pre-lacteal feeding (PLF) and weaning of the mothers living in slums in Rajshahi. The sample size was 350 which were selected purposively. In this study the mean age of the respondents was 26.43 ± 3.60 years. Out of 350 respondents, 46.9% were in the age group of 25-29 years followed by 26.0% in the age group of 20-24 years. In another study by Mahmood [3] most of the mothers were aged less than 30 years 78.04% [10] and in other mean age was 28.3 ± 4.9 years [5]. Similar result was also found in the study where the majority 64.2% of mothers were in the age group 20-29 years [6]. Most 89.1% of the respondents took housework as occupation. The majority were housewives 99.1% [10]. Most 88.3% of the respondents were Muslim, followed by Hindu, Others and Christian comprised 5.7%, 4.3% and 1.7% respectively. Hindus 73.9% [10]. A total of 524 families were surveyed. There were 29.4% Muslims and 70.6% Hindus families [9].

Regarding husband's occupation it was found that out of 350 respondents 26.9% belonged to occupation of service followed by day labour 24.9%, business 23.4% and others 19.1%. Majority 76.0% of the respondents had monthly family income of Taka 5000-10000. The mean

monthly family income was Tk. 5997.16 ± 3588.19. A researcher found in his study the mean income was KES 26,360 ± 34696 [5]. Most of the respondent's belonged to the lower socioeconomic class 97.5% [2]. Majority 57.7% of the respondent had two children, 34.0% one children and 8.3% three children. Out of 350 respondents 48.6% mentioned honey as pre-lacteal food and 24.9% did not know pre- lacteal food. In different Indian studies PLFs was more frequent in female babies and less educated mothers and more in high income groups. The Commonest PLFs were sugar/glucose water, infant formula, and herbs/decoction. This agrees with previous studies in Egypt where glucose, herbal drinks, sugar water and teas where the most frequently pre-lacteal feeds. In many African countries including Libya, Kenya, Nigeria and Nepal, sugar water, glucose, plain water, and infant formula were the commonest PLFs. These PLFs were also reported in Philippines. However, in India and Bangladesh the common feeds were honey, herbs, sugar water, gripe water, and cow's milk. This variation in the type of PLF between different countries could be attributed to the difference in culture, local beliefs, and availability of different feeds [11].

Our study revealed that 47.5% of the respondents told that pre-lacteal feeding was given due to tradition, followed by 34.5% respondents did not know the reasons of giving pre-lacteal feeding, breast milk not yet produced and child to have good health constituted 15.0% and 2.3%% respectively. In a study it was found that pre-lacteal feeding was given to 77.0% of the babies, and honey was given to 72.0% of them [15]. The common reasons for starting semi-solid food told by mothers during follow-up visits were the belief that (i) infant nutritional requirements increased, 92.0% mothers, (ii)) food provided strength to infants, 22.0% mothers, (iii) infants needed to become accustomed to other foods, 14.0% mothers and (iv) advice by health staff or other relatives, 6.0% mothers [1]. About 58.0% of new-born's received pre-lacteal feeds. The commonest PLF was sugar/glucose water 39.6%. The most frequent reasons for giving PLF are tradition 61.0% and mother's/mother in law's advice 58.3%. The most frequent reasons for giving PLF are tradition 61.0%, mother's/mother in law's advice 58.3%, keeping mouth and throat 55.9%, lack of/delay in milk production 47.96%, and advice of health care provider 42.0% [11]. Majority 76.9% of the infants received pre-lacteal feeds [12]. In 37.5% cases, mother's illness was the reason for delay in initiation of breast feeding, whereas in 54.69% cases, it was due to reduced milk production on mother's statement. Pre-lacteal feeding was given in 24.0% children [13]. Plain water, sugar/glucose, gripe water, sugar/salt solution, fruit juice, infant formula, tea and other milk, other than breast milk were some of the types of pre-lacteal feeds reported [14]. Regarding effect of not giving colostrum's it was revealed that malnutrition, weakness and not known was mentioned by 49.7%, 33.79% and 16.6% of the respondents respectively.

Regarding time of weaning 55.7%, 39.1%, 4.0% and 1.1% of the respondents mentioned that the babies should be weaned at the time of more than 6 months, at 6 months, at 5 or less than 5 months and did not know respectively. The mean age for initiating supplemental feeding with semi-solid food was 4.4± 0.99 months [1]. Out of 350 respondents hotchpotch (khichuri) and others was considered as common weaning food consisting of 40.0% and 36.9% respectively. Present study showed that malnutrition and weakness was mentioned by 49.1% and 35.1% respondents respectively. Regarding effect of improper weaning. Honey and glucose water was considered by 67.6% and 27.0% respondents respectively. Regarding type of pre-lacteal food in 25 infants 47.0% pre-lacteal feed was offered once only, the most popular pre-lacteal feed was honey. Honey was mainly given as a tradition while herbal preparations were thought to clean the stomach and regularize bowel functions during early days of life. Saline was given to 33 infants 63 5% either to "clean the intestinal passages" or as a "replacement feeding" provided by mothers who thought that milk was not produced during the first few days of life [1]. Pre-lacteal use was high 44.7% [2].

In different Indian studies PLF was more frequent in female babies and less educated mothers and more in high income groups. The commonest PLFs were sugar/glucose water, infant formula and herbs/decoction. This agrees with previous studies in Egypt where glucose, herbal drinks, sugar water and teas were the most frequently used pre-lacteal feeds. In many African countries including Libya, Kenya, Nigeria, and Nepal sugar water, glucose, plain water, and infant formula were the commonest PLFs. These PLFs were also reported in Philippines. However, in India and Bangladesh the common feeds were honey, herbs, sugar water, gripe water, and cow's milk. This variation in the type of PLF between different countries could be attributed to the difference in culture, local beliefs, and availability of different feeds [11].

This study showed that hotchpotch 37.8%, followed by suzi and cow's milk was considered by 32.4% and 12.6% regarding type of weaning food respectively. Fruits (mainly banana, given to 21 infants) were the most popular initial weaning food (given during first month of weaning), given to 48.0% infants, followed by commercially prepared cereal foods for 40.0% infants. Other less commonly used foods were bread and biscuits in 34%, milk based foods such as kheer, custard, firni in 20.0%, rice in 22.0%, egg in 4.0%, fatty meal such as haiwa in 4.0% and yogurt in 6.0% [1]. Among them honey was given in 25% cases, cow's milk was given in 14.58% cases, sugar water was given in 18.75% cases and formula milk was given 41.67% cases [13].

Most 92.0% had education level of class VI-XII and 8.0% had up to Class V level education. Most were illiterate 69.9% [10]. A total of 524 families were surveyed. About one fifth 21.2% of the mothers had education level up to

junior/high school level. More than one third 45.8% of fathers were illiterate and 27.8% had education level up to junior/high school level [9]. Majority 58.0% came from nuclear family. A total of 524 families were surveyed. The majority 70.0% of the families were nuclear type [9]. Majority 73.71% of the respondents knew about pre-lacteal food and colostrum's were given to the baby by majority 96.29% of the respondents, 42.2% of newborns received colostrum's [11]. About thirty quarters 74.2% of mothers feed colostrum [16]. Compliance with the selected recommendations were: 74.4% reported exclusive breastfeeding; 87.5% did not give pre-lacteal feeds, 78.3% were not using feeding bottles while 92.9% gave colostrum [17].

Weaning was known to almost all 99.14% of the respondents. This study showed that pre-lacteal food was given to the baby by majority 73.14% of the respondents and 26.86% did not give pre-lacteal food. It was found that almost all 99.71% of the respondents weaned their babies. This study result showed that educational status of the respondent was not statistically associated with knowing pre-lacteal food ($p > 0.05$) and giving pre-lacteal food to their babies ($p > 0.05$). PLF is significantly more reported in urban than rural areas, with highly educated mothers (for secondary education and for higher education), in low, middle and high social classes [11]. Study findings showed that half 50.6% of the mothers had given pre-lacteal feedings to their newborn. Out of those who had given pre-lacteal feed, 55.1% had given Muglia gutty/gripe water and 49.4% had given boiled water as pre-lacteal feed. Only mother's education ($p < 0.01$), father's education ($p < 0.001$) and socioeconomic status ($p < 0.05$) were statistically associated with the practice of giving pre-lacteal feeding.

There was a statistically significant difference in feeding practice practices of educated and uneducated ($P < 0.001$) and also in poor and middle class mothers ($P < 0.003$) [18]. Economic status and the mother's education status were significant factors associated with the introduction of pre-lacteal feeds in this study [6].

This result showed that the association between type of family with knowing pre-lacteal food ($p > 0.05$), knowing weaning ($p > 0.05$), and giving pre-lacteal food to their babies ($P > 0.05$)) was statistically not significant. There was statistically significant relationship between occupation of the respondent's husband and giving pre-lacteal food to their babies ($p < 0.05$). In other study it was found that there was no significant relationship between monthly family income of the respondents and giving pre-lacteal food to their babies ($p > 0.05$). There was no association between religion, caste and birth order with the practice of giving pre-lacteal feeding as it was not found statistically significant ($p > 0.05$). Only mother's education ($p < 0.01$), father's education ($p < 0.01$) and socioeconomic status ($p < 0.05$) were statistically associated with the practice of giving pre-lacteal feeding [9].

In the present study it was evident that there was statistically no significant relationship between age of the respondent and giving pre-lacteal food to their babies ($p > 0.05$). There was statistically no significant relationship between occupation of the respondent and giving pre-lacteal food to their babies ($p > 0.05$). It was observed that there was statistically no significant relationship between religion of the respondent and giving pre-lacteal food to their babies ($p > 0.05$). In other studies there was no association between religion, caste and birth order with the practice of giving pre-lacteal feeding as it was not found statistically significant ($p > 0.05$). Only mother's education ($p < 0.01$) and socioeconomic status ($p < 0.05$) were statistically associated with the practice of giving pre-lacteal feeding [9, 12]. Higher paternal education was also associated with increased odds of prolonged breastfeeding while early introduction of formula (OR 3.95, $P = 0.01$) [19].

Bivariate analysis showed that factors favoring exclusive breast feeding were age of the mother (< 25 years), with secondary or higher education, number of children, with no history of complicated pregnancy or lactation problems, received health education about breast feeding and having knowledge about breast feeding [20].This findings is similar to many other studies which show the protective effect that lower economic status has on exclusive breastfeeding. The lower socio-economic groups may have less access to the expensive pre-lacteal feeds such as ghee or honey and therefore exclusive breastfeeding is the only option available to them. This might be a reason for the reported lower pre-lacteal feeding practice rates amongst the poorest wealth groups in Nepal [6].

V. CONCLUSION

In our study, 57.76% of the respondent had two children, 48.6% mentioned honey as pre-lacteal food, 47.5% of the respondents told that pre-lacteal feeding was given due to tradition and 49.7% considered malnutrition as the effect of not giving colostrum's. Regarding time of weaning 55.79% of the respondents mentioned that the babies should be weaned at the time of more than 6 months, hotchpotch (khichuri) was considered as common weaning food consisting of 40.0% and 49.19% respondents considered malnutrition as the effect of improper weaning, most 67.6% of the respondents considered honey as pre-lacteal food and hotchpotch 37.8%, followed by Suzi 32.4% was regarded as the type of weaning food. Most 92.0% had education level of class VI-XIl, majority 58.0% came from nuclear family, most 73.715) of the respondents knew about pre-lacteal food, majority 96.29% of the respondents, weaning was known to almost all 99.14% of the respondents, pre-lacteal food w was given to the baby by majority 75.14% of the respondents and almost all 99.71% of the respondents weaned their babies. Educational status of the respondent was not statistically associated with knowing pre-lacteal food and giving pre-

lacteal food to their babies. Giving pre-lacteal food to their babies was not associated with monthly family income, age of the respondent and religion.

RECOMMENDATIONS

The following recommendations are made on the basis of the findings of the present study and have been described in this section-

1. Mass education program throughout the country should be strengthened. Special emphasis should be given on female education. It will encourage mother to practice weaning at proper time.
2. To improve the economic status of the rural people government and NGOs should take initiatives regarding involvement in income generating activities.
3. Hospital based parent education program especially mother for appropriate weaning and supplementary food should be strengthened.
4. Further education of the mothers and health staff about adverse effects of pre-lacteal feeding is required.
5. Maternal knowledge and awareness of correct feeding practices is essential for the normal growth, health and well-being of the children.

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