

Knowledge, Attitude and Practice Regarding Weaning Food among Mothers Attending Pediatrics In-Patient Department of Mymensingh Medical College Hospital

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Abstract: Weaning marks a critical transition in an infant's nutritional journey from exclusive breastfeeding to the introduction of complementary foods. This descriptive cross-sectional study was conducted among 385 mothers attending the Pediatric In-Patient Department of Mymensingh Medical College Hospital, Bangladesh, from July 2020 to June 2021, to assess their knowledge, attitude, and practice (KAP) regarding weaning food. Data were collected through a structured questionnaire and analyzed using SPSS version 20.0. Findings revealed that the majority of mothers (89.1%) correctly understood the meaning of weaning, while 57.4% initiated weaning at the WHO-recommended age of six months. About 81% were aware of the appropriate age for cessation of breastfeeding (24 months). Attitude assessment indicated that 82.1% strongly agreed that weaning should begin at six months, and 79.7% emphasized proper hand hygiene before food preparation. In practice, 98.4% of mothers provided colostrum, 93% introduced nutritious weaning foods such as khichuri, fruits, eggs, and meat, and 76.9% continued breastfeeding up to two years. Statistical analysis showed significant associations between maternal education, residence, family income, and the timing of weaning initiation ($p < 0.05$). The study concludes that while mothers demonstrated adequate knowledge and positive attitudes, gaps remain in practical application and early initiation of formula feeding. Strengthening maternal education and community-based nutrition programs are recommended to promote optimal weaning practices and reduce malnutrition among Bangladeshi children.

Keywords: Weaning food, Complementary feeding, Maternal knowledge, Attitude and practice, Infant nutrition

INTRODUCTION

Background

Today's children are tomorrow's citizens. The health of the child depends upon the fulfillment of nutritional necessities that includes breast feeding and weaning (Bhatti *et al.*, 2018). The term "weaning" describes the process by which baby moves from having breast milk to consuming semi-solid or solids food with a gradual reduction in the intake of breast milk and/or baby formula. The shift from exclusive breast feeding to semisolid food is a very in danger period because it is the time when malnutrition starts in many infants, contributing significantly to the high prevalence of malnutrition and infection in children under five years of age worldwide. Nutrition plays a very important role in physical, mental, social development of children and emphasis must be given to provide good nutrition to growing populations especially in formative years of life (Sethi *et al.*, 2017).

According to World Health Organization (WHO) recommends exclusive breast-feeding (BF) for the first six month of age, addition of weaning foods at six months with continued BF till two years while also consuming the benefits of the necessary nutrients from the complementary foods. Weaning from the breast is a natural, inevitable stage in child's development. It is a complex process involving nutritional, immunological, biochemical and psychological adjustment. It is therefore

necessary to introduce more concentrated energy dense nutritional is essential to maintain optimum health of baby at the age of 6 months. Weaning too early may cause baby at higher risk of developing digestive disorder and adverse reactions or allergies to certain food, weaning too late may deprive adequate nutrition and can result in proper growth and development (WHO, 2006). The prevalence of anemia in children of age 6 months-1 year in urban slums of Meerut was 59.90%. The weaning time, nutritional status and early iron supplementation had a positive impact on it (Kambli, 2014). It is very essential to initiate weaning food timely. Early introduction of weaning food is associated with increased morbidity due to diarrhoeal diseases and development of malnutrition in areas with poor food or water hygiene (Ram, 2012).

On the other hand, too long delay in introducing appropriate weaning foods (WF) may lead to nutritional deficiencies of iron, zinc, calcium and sometimes vitamin A and riboflavin. Inappropriate feeding practice during weaning period is found to be the major cause of malnutrition. More than 24% children of 50,000 die in Nepal each year and malnutrition contributes to more than 60 percent of these deaths. Weaning foods bridge the energy, vitamin A and iron gaps which arise in breastfed infants at 6 month of age (Alina, 2009).

Malnutrition is a major health problem in Bangladesh. According to Bangladesh Demographic and Health Survey (BDHS) in 2011, 40% of under five children were stunted and 33% were underweight but in 2007, 42% were stunted and 41% underweight. Another report on Institute of Public Health and Nutrition (IPHN), Bangladesh (2007), almost one half of children under five years are underweight and 42% are stunted. Only 42% of infants aged less than six months are exclusively breastfed and almost one third (29%) of children aged 6 to 9 months do not receive any solid or semi-solid foods. According to WHO report 1996, 64% mothers were not aware about nutritional needs of their infant and not know how to prepared weaning foods. Babies nutritional needs change as they grow, so at each stage of their development they need the right balance of nutrients and energy to support healthy growth.

Rationale of the research

Weaning is the introduction of food and fluids than breast milk and the transition to a solid diet along with breast milk. Weaning is a best process involving nutrition; immunological, biochemical and psychological adjustments (Naher *et al.*, 2019). Early start of weaning is a large problem in Bangladesh like many other countries. Three studies from Bangladesh had showed that before six months were start weaning 10.50%, six months 30.50 % after six months 10 % as much as the child gets 49 % (Afroz *et al.*, 2017).

Delayed weaning can lead to serious health complications for the infants because after six months of age breast milk alone is not sufficient, both in quantity and quality, to meet the nutritional requirements of child – especially for energy and micronutrient. Breast milk is not sufficient in iron, zinc, and vitamin A requirement of the baby's need (Manzoor *et al.*, 2009). The recent study about the knowledge, attitude, and practices of breastfeeding and weaning among mothers of children up to 2 years old in a rural area, Egypt revealed that 92.2% of the mothers defined weaning as breastfeeding cessation however only 4.2% defined weaning correctly as introduction of assistant food with breastfeeding (Mohammed, *et al.*, 2014). Bangladesh has a large number of people live under low socio economic condition. They do not use weaning food properly. Many infants are suffering from malnutrition and other infectious diseases. Therefore, this study will help to identify the gaps of knowledge and practice on weaning

among mothers (Naher, *et al.*, 2019).

The findings of this study will provided valuable information about benefits and effects of early and late weaning. The study result would help the policy maker to formulate appropriate intervention strategies to increase knowledge and proper practice of mother about weaning, which will help to prevent malnutrition of the child.

Research Question:

What is the status of knowledge, attitude and practice of mother regarding weaning, food?

RESEARCH OBJECTIVES:

General Objective:

To assess the knowledge, attitude and practice of mothers regarding weaning food.

Specific Objectives:

- To find out the socio-demographic characteristics of the mothers.
- To assess the knowledge and attitude of the mothers regarding weaning food.
- To determine practice of the mothers regarding weaning food.

Research Variables:

Socio Demographic variables

- Age of mother
- Age of child
- Education of mother
- Occupation of mother
- Religion
- Family members
- Monthly family income
- Residence

Knowledge related variables

- Concept of weaning food
- Timing of weaning started
- Types of weaning food
- Benefits of weaning
- Risk of early weaning
- Risk of late weaning

Attitude of mother regarding weaning food.

- Starting of weaning food
- Timing of weaning started
- Breast feeding
- Food hygiene
- Foods used for weaning

Practice related variables

- Starting of weaning food
- Timing of weaning food

- Foods used for weaning
- Breast feeding
- Food hygiene

LITERATURE REVIEW

Review of literature is an essential step in research process. This chapter of the study was provide opinions from different authors and organizations which was be utilized to provide a better understanding of weaning food. In this chapter, some literatures from different regions were reviewed; these were from developed, developing and under developed countries.

Weaning food is the process of introduction foods other than breast milk to a child, and gradually increasing the amount, so that eventually the child gets enough energy and nutrients from ordinary family food. The transition from exclusive breast feeding to semisolid food is a very vulnerable period because it is the time when malnutrition starts in many infants, contributing significantly to the high prevalence of malnutrition and infection in children under five years of age worldwide. There are three stage of weaning food as Stage 1– Introduction of solid foods from around six months. Stage 2– More textures and tastes from around seven months. Stage 3– Wider variety and family food from around 9-12 months. Healthy weaning Foods as fruits, juices, vegetables, soups, legumes, water, greens, cooked foods etc. Weaning food to prevent malnutrition and improve the health status of children (King, 2014).

Adequate nutrition during infancy is vital to a healthy life. As per the guidelines of WHO, Infant and Young Child Feeding (IYCF) an infant should be breastfed for the first 6 months of birth and thereafter, semi-solid and solid foods need to be introduced soon while breastfeeding. Haldwani region is also having more undernourished children in the Uttarakhand state. The study was performed to assess the knowledge, practice, and attitude of the mothers regarding weaning which is the major factor for nutritional deficiency in the infants. 70% of the mothers were Hindu, 60% were in the age group of 26-30 years, 50% of mothers had education up to Intermediate and the remaining 50% were graduate. The majority 58% of the mothers was house makers, 54% were multigravida, 74% belonged to a nuclear family and 74% of mothers revealed that their source of information was family members and friends. The mothers showed a positive attitude in the majority of the area of weaning. Among them, 80% believed that weaning is essential during infancy

and it has no link with teeth eruption. Further, 80% of mothers revealed that they did not add any extra things (sugar, ghee, jaggery) in weaning foods. All the mothers had a positive attitude towards personal hygiene & 80% of mothers were aware that “improper and delayed weaning leads to delayed growth and development. The researcher found the lacunas in several areas that were tried to be overcome by developing and distributing the informational booklet on weaning. This study helped the mothers to gain more knowledge in the weaning area (Suyal *et al.*, 2020).

“Weaning” is used to explain the beginning of foods and fluids other than breast milk and the change to a solid diet along with breast milk. A descriptive study was conducted at three EPI centers in Noakhali Municipality, Noakhali. The mean age of the mothers was 25.18, (SD $\pm$ 4.32). Most of the subjects were Muslim. The results revealed that the lactating mothers reported moderate level of total knowledge, with the mean score was 16.13 ± 4.32 and the low level of total practice, mean score was $2.83 \pm .27$. The mothers who had higher education, more than two babies, and non-Muslim mothers especially were high knowledge and practice regarding weaning. There were significant factors related to knowledge level were: non-Muslim mothers' ($p = 0.05$), higher educated ($p = 0.03$), get information from relative/others ($p = 0.05$), and start weaning ($p = 0.01$). Significant factors related to practice were older mothers' age ($p = 0.002$), having baby more than one ($p = 0.05$) and having older child age ($p = 0.001$), higher educated ($p = 0.008$), and period of weaning ($p = 0.01$). There was no relationship between total knowledge and total practices of weaning among lactating mothers' ($r = 0.02$, $p = 0.82$). Therefore, the nurses and other health care provider should consider the following characteristics like low educated mothers, prime mothers, starting of weaning, and Muslim mothers especially. Thus, we can prevent of our infant mortality and morbidity regarding weaning practices in Bangladesh as well as abroad (Naher, *et al.*, 2019).

Initiation of complementary feeding is often delayed in Bangladesh and likely contributes to the high burden of infant under nutrition in the country. Maternal knowledge and attitudes towards complementary feeding, nutritional importance and cost of complementary foods were assessed at child age 3 months. Two scales were created from the sum of correct responses. Tertiles were created for analysis (Knowledge: 0–7,

8–9, 10–15; Attitudes: 18–25, 26, 27–34). Infant age at complementary feeding initiation was characterized as early (≤ 4 months), timely (5–6 months) or late (≥ 7 months), based on maternal recall at child age 9 mo. We used stratified polytomous logistic regression, adjusted for socioeconomic status, infant gender, maternal age, literacy and parity to identify predictors of early or late vs. timely complementary feeding initiation. Complementary feeding initiation was early for 7%, timely for 49%, and late for 44% of infants. Only 19% of mothers knew the WHO recommended age for complementary feeding initiation. The knowledge score was not associated with timely complementary feeding initiation. Mothers with the most favorable attitudes (highest attitudes score tertile) were more likely to initiate late complementary feeding compared to those with the lowest attitudes score tertile (adjusted OR = 2.2, 95% CI: 1.1–4.4). Late introduction of complementary foods is still widely prevalent in Bangladesh. Improved maternal knowledge or favorable attitudes towards complementary feeding were not associated with timely introduction of complementary foods, indicating other factors likely determine timing of complementary feeding initiation (Owais, *et al.*, 2019).

The health of the child depends upon the fulfillment of nutritional necessities that includes breast feeding and weaning. The descriptive analytical study was conducted in the area of Mohnalwal Lahore. All mothers in the reproductive age group 18–49 year were the source population. The Majority (85.7%) of mothers of the community were educated and only 14.3% of mothers had no formal education. The main source of this knowledge was friends and family with 27.8% and health worker or hospitals with 21.8% whereas, 16.5% of the mother's had knowledge of weaning from TV and media and only 7 mothers had the knowledge of weaning. Majority of the mothers had knowledge about weaning and was practicing correct weaning practices. Majority of the mothers started weaning at the recommended age of 4 to 6 months and the commonly used weaning diet was rice, rusk / biscuits or mashed fruits / veg. most of the mothers of Mohnalwal show a positive attitude towards weaning (Bhatti, *et al.*, 2018).

In South India, only 8% of mothers had proper knowledge of all aspects of complementary feeding. In Southern Ethiopia, timely initiation of complementary feeding, minimum meal frequency and minimum dietary diversity were 72.5, 67.3 and

18.8% among mothers of children aged 6–23 months respectively. Only 9.5% of mothers practiced appropriate complementary feeding. In Ghana, only 13% of children aged 6–23 month met the minimum standards of the infants and young child feeding practices (IYCF). Between 2003 and 2013, in Nigeria, was a decreasing prevalence (from 2003 to 2013) of timely introduction complementary foods (67% to 57%); the minimum dietary diversity (33% to 24%) and minimum acceptable diet (13% to 8%) among mother were educated. Knowledge of complimentary feeding was low (14.9%) and was associated with older mother age, being married and higher level of education. The prevalence of timely initiation of complimentary feeding (47.9%), dietary diversity (16.0%) and minimum acceptable diet for children between 6 and 9 months (16%) were low. Over all, appropriate complementary feeding practice was low (47.0%) and associated with higher level of mother's education and occupation (Olatona, *et al.*, 2017).

Malnutrition continues to be a major problem for Bangladesh. According to the 2011 Bangladesh Demographic and health survey (BDHS) 40% of children under five were identified to be stunted, a marginal decrease compared to 43% identified in BDHS 2007. Similarly underweight estimates for children under five linger at 33% for 2011 compared to 41% identified in 2007. Despite the fertile soil and fish stocks, the children of poor families here aren't getting the nutrition they need. Bangladesh has one of the highest malnutrition rates in the world. 41% under 5 children suffer from moderate to severe stunting which indicates of chronic malnutrition. Promoting good nutrition and dietary habits are most important components of maintaining child's health. Multiple studies have previously looked into various determinants of child health in Bangladesh, although few in specifically urban slum settings, greater household wealth, urban locality, greater birth interval, earlier birth order, timely breast-feeding initiation, higher maternal age, increased number of antenatal visits, greater exposure to mass media, lower diarrheal incidence, as well as mothers being employed, have been linked to lower malnutrition among children under five in Bangladesh (Fakir, 2015).

RESEARCH METHODOLOGY

Study Design:

A descriptive type of cross-sectional study was adopted to assess the knowledge, attitude and practice of mothers regarding weaning food.

Study place:

Pediatrics Patient Department of Mymensingh Medical College Hospital, Bangladesh.

Study Period:

The study was conducted during one year, from July 2020 to June 2021.

Study population:

Mothers who have at least one child under two years of age, attending the in-patient department

$$\begin{aligned} n &= Z^2 Pq / d^2 \\ &= (1.96)^2 \times 0.5 \times 0.5 / (0.05)^2 \\ &= 3.8416 \times 0.25 / 0.0025 \\ &= 0.9604 / 0.0025 \end{aligned}$$

$$= 384.16$$

$$= 385$$

minimum sample size was 385.

d= Acceptable margin of error = 0.05

Here,

n = Minimum sample size.

Z = Critical value of alpha, at 5% significance level it is 1.96.

P= Proportion of person with disease or event.

q= Proportion of person without disease or So, event (1-p).

(mother of admitted patients) in pediatric department at Mymensingh Medical College Hospital, Bangladesh.

Sampling Technique:

Non-probability type of purposive sampling technique was adopted for selecting the samples.

Sample size:

The 385 mothers was selected as a sample of this study through purposive sampling technique

SAMPLE SELECTION CRITERIA**Inclusion Criteria**

Mothers who have at least one child below the age of two years

Exclusion Criteria

- Mother of child who is very severely ill
- Mother who are not willing to participate in the study

Data collection tool

Structured case record form was developed by the investigators in light of the specific objectives and variables of the study with the help of literature, the subject teachers and guide teachers before finalizations. There were four parts of the case record form. part-1 was demographic related information about the respondents, part-2 contained Knowledge on weaning food related questions, part-3 contained Attitude of mothers toward weaning related question, and part- 4 contained Practice of weaning for last child related question. Pre-testing was done on 5-10 mothers come in outdoor pediatric departments of Mymensingh Medical College Hospital, Mymensingh and the case record form was finalized for data collection

Data collection procedure:

Prior to the data collection, the investigator

provide a brief description on the purposes of the study for clear understanding. Then the researchers obtained written consent from the respondents. The case record form was served to the respondents for fill up by face to face interview.

Data Analysis and interpretation:

Data were analyzed using statistical package for social science (SPSS), version 20.0. Qualitative variables was summarized by percentage and quantitative variable was summarized by mean and standard deviation. Necessary bivariate and multivariate analysis was done accordingly.

Presentation of results:

The study findings were presented by using table, pie chart and bar chart with interpretation.

Ethical consideration:

No physical and psychological risk was associated with the study. Informed written consent was taken from the participants prior to collection of data. Confidentiality of data were maintained all through. Ethical clearance was taken from Institutional Review Board (IRB) of Mymensingh Medical College (Memo no. MMC / IRB/2021/301 Date: 13.03.2021).

RESULTS

Part-A: Socio demographic characteristics

Table 1: Respondents' by the age of mothers (n=385).

Age of mothers (years)	Frequency (n)	Percent (%)
20-26	302	78.40
27-33	59	15.30
34-40	24	6.20
Total	385	100

Mean $\pm$ SD=25 $\pm$ 0.58 years.

This table showed that 302 (78.40%) of all respondents' age range was between (20-26) years,

59(15.30%) age range was between (27-33) years, 24(6.20%) age range was (34-40) years.

Table 2: Respondents' by the age of children (n=385).

Age of children (months)	Frequency (n)	Percent (%)
6-12	161	41.8
13-19	124	32.2
20- 26	100	26.0
Total	385	100.0

Mean $\pm$ SD=1.84 $\pm$ 0 .81 months.

This table showed that 161(41.8%) of all respondents' age of child range was between (6-

12) months, 124(32.2 %) age range was between (13-19) months, 100 (26.0%) age range was (20=26) months.

Table 3: Respondents' by family members (n=385).

Family members	Frequency (n)	Percent (%)
3-6	233	60.5
7-10	149	38.7
Total	385	100.0

Mean $\pm$ SD=1.40 $\pm$ 0 .51 persons.

This table showed that 233 (60.5 %) of all respondents' family members range was between

(3-6), 149 (38.7 %) family members range was between(7-10).

Table 4: Respondents' by monthly family income (n=385).

Family income in Taka / month.	Frequency (n)	Percent (%)
<10,000 BDT/month (poor class)	87	22.6
BDT/month (middle class)	199	51.7
>30,000 BDT/month (affluent class)	99	25.7
Total	385	100.0

Mean $\pm$ SD=2.03 $\pm$ 0 .69 taka/month.

This table showed that 199(51.7 %) of all respondents' family income range was between (10,000 – 30,000 BTD/month), 99 (25.7%) family

income was >30,000 BTD/month and 87(22.6%) family income was <10,000 BDT/month.

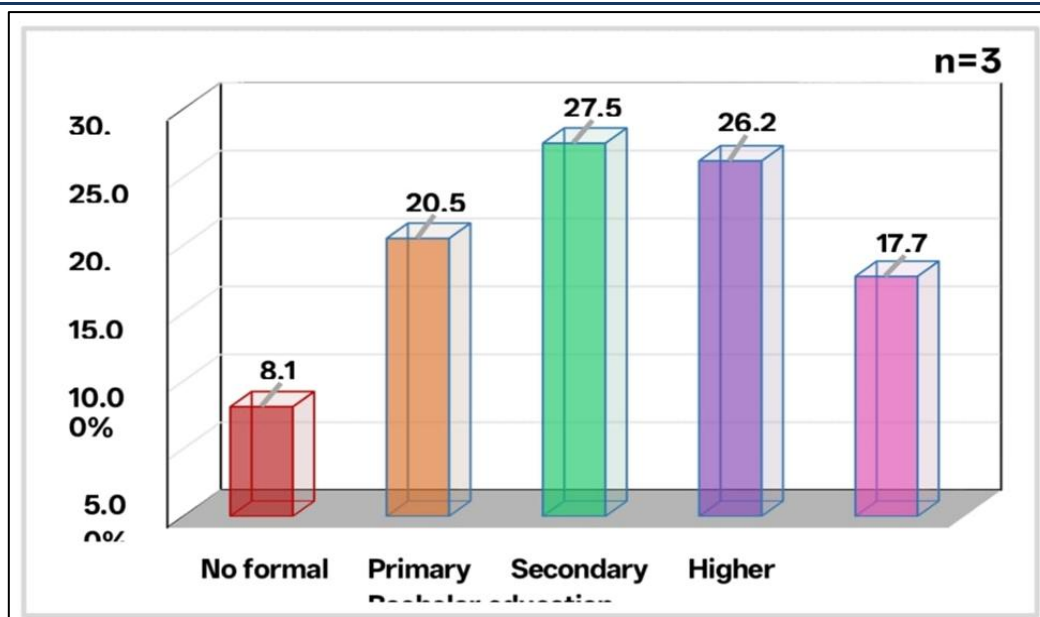


Figure 1: Distribution of respondents by educational status.

This figure showed that 31(8.10%) of the respondents were no formal education, 79(20.50%) were Primary passed, 106(27.50%) were secondary

passed, 101(26.20%) were higher secondary passed, and 68 (17.7%) were bachelor degree passed.

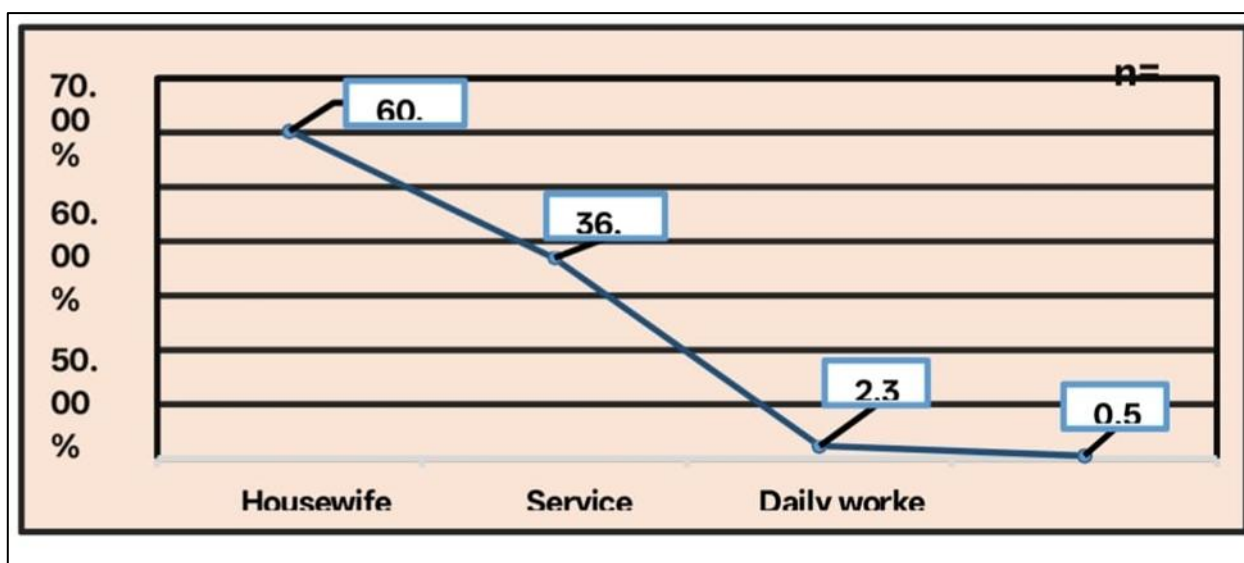


Figure 2: Distribution of respondents by occupation.

This figure shows that majority of the respondents were housewife 232(60.30%), then

Service 142 (36.90%), then daily worker 9 (2.30%), and then business 2 (0.50%).

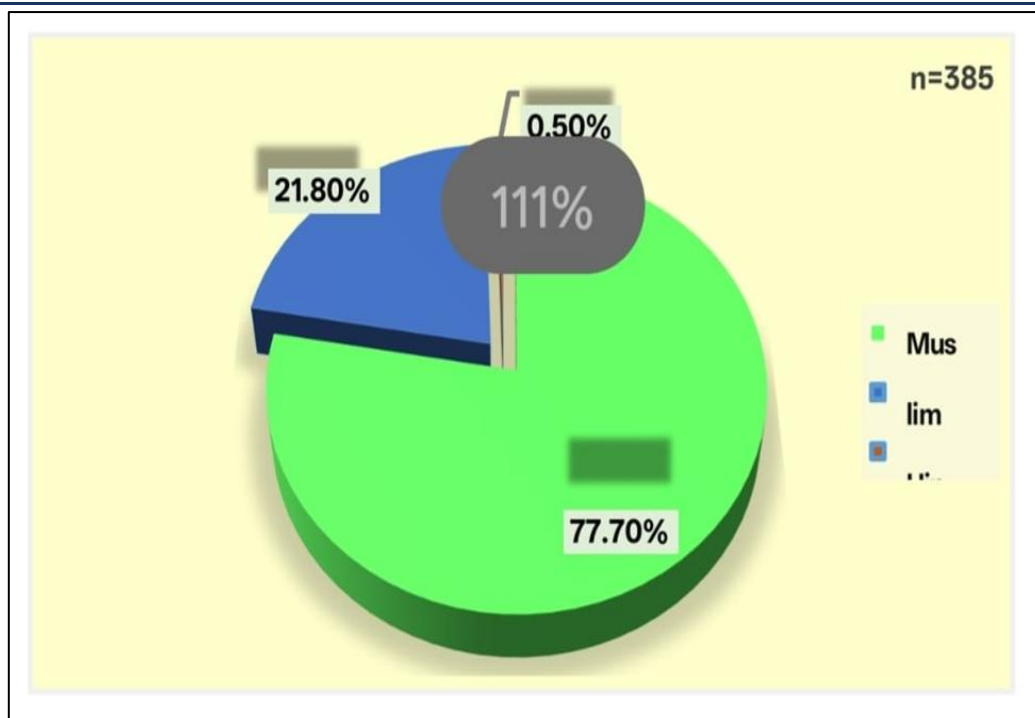


Figure 3: Distribution of respondents by religion

This figure shows that most of the respondents were Muslim 299 (77.70%), then Hindu 84 (21.80%), then Christian 2 (0.50%).

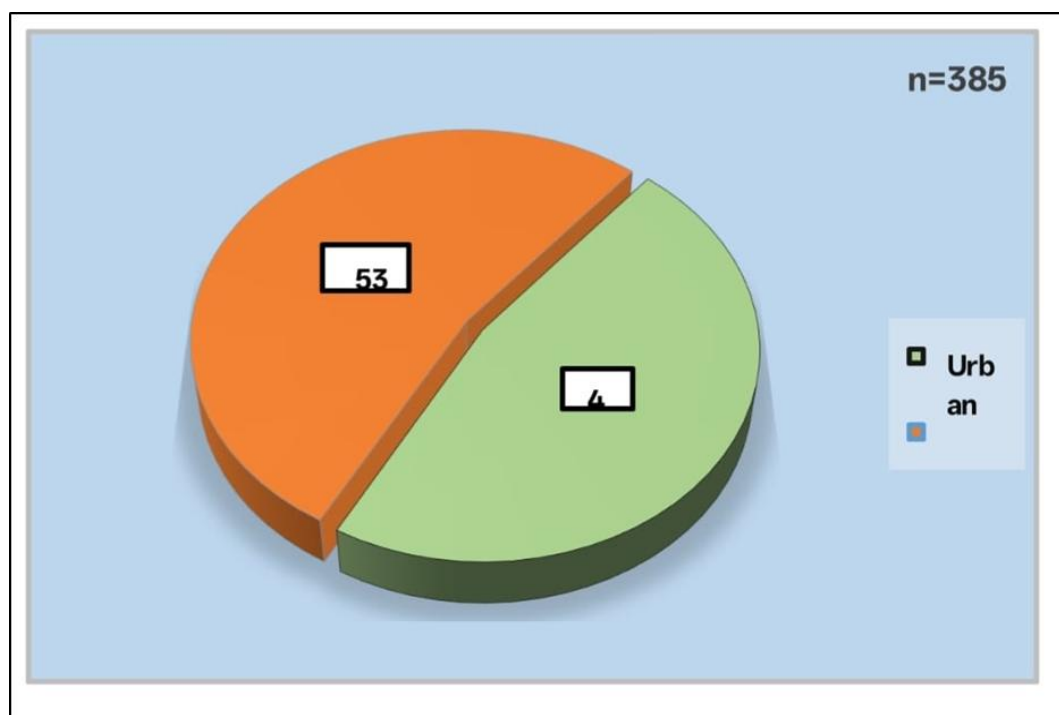


Figure 4: Distribution of respondents by residence.

This figure shows that 204(53%) of respondents' were live in rural and rest of 181(47%) were live in urban.

Part-B: Knowledge Related Results**Table 5:** Respondents' knowledge regarding meaning of weaning food (n=385).

Weaning food	Frequency (n)	Percent (%)
Only the solid food	35	9.10
Introduction of liquid, semi-solid and then solid food to a child with continued Breastfeeding	343	89.10
Adding Infant formula to a child's meal	4	1.00
Did not know	3	0.80
Total	385	100

This table showed that 343(89.10%) respondents answered correctly about the meaning of weaning food as introduction of liquid, semi-solid and then solid food to a child with continued Breastfeeding. The rest of them answered wrong, 35(9.10%)

answered as only the solid food one kind, 4(1.00%) answered adding Infant formula to a child's meal and 3 (0.80%) answered did not know.

Table 6: Respondents' knowledge by the age of starting weaning food (n=385).

Age of starting weaning food (months)	Frequency (n)	Percent (%)
5	48	12.50
6	221	57.40
7	116	30.10
Total	385	100

This table showed that 221(57.40%) respondents answered correctly about the age of weaning food introduced as 6 months. The rest of them answered

wrong, 116(30.10%) answered as 7 months, 48(12.50%) answered as 5months.

Table 7: Respondents' knowledge by the age of withdrawal of breastfeeding (n=385).

Age of withdrawal of breastfeeding (months)	Frequency (n)	Percent (%)
6	2	0.50
10	4	1.00
12	47	12.20
24	312	81.00
Did not know	20	5.20
Total	385	100

This table indicates that 312(81.00%) respondents gave correct answer about the age of withdraw breastfeeding as 24 months. Other respondents gave wrong answers as 12 months, did not know,

10 months, and 6 months, whose percentages were 47(12.20%), 20(5.20%), 4(1.00%) and 2(0.50%) respectively.

Table 8: Respondents' knowledge on weaning food is essential (n=385).

Weaning food is essential	Frequency (n)	Percent (%)
Healthy child	107	27.80
Growth and development of baby	269	69.90
Only increased height	5	1.30
Only increased weight	4	1.00
Total	385	100

The table describes that 269 (69.90%) of the respondents were correct answer about the weaning food is essential as growth and development of baby. Other respondents answered incorrectly as healthy child, only increased height

and only increased weight, which percentages were 107 (27.80%), 5(1.30%) and 4(1.00%) respectively.

Table 9: Respondents' knowledge on disadvantage of early weaning (n=385).

Disadvantage of early weaning	Frequency (n)	Percent (%)
Better development	103	26.80
Marasmus	238	61.80
Increased height	10	2.60
No risk	5	1.30
Did not know	29	7.50
Total	385	100

The above table shows that 238 (61.80%) respondents answered correctly about the disadvantage of early weaning as marasmus. Incorrect answers were provided by 103(26.80%),

29(7.50%), 10(2.60%) and 5(1.30%) respectively as better development, did not know, increased height and no risk.

Table 10: Respondents' knowledge on disadvantage of late weaning (n=385).

Disadvantage of late weaning	Frequency (n)	Percent (%)
Kwashiorkor	292	75.80
Increase immunity	62	16.10
Infection	8	2.10
No risk	11	2.90
Did not know	12	3.10
Total	385	100

The above table showed that 292(75.80%) respondents gave correct answered about the disadvantage of late weaning as kwashiorkor, 62(16.10%), 12(3.10%), 11(2.90%) and 8(2.10%)

of the respondents answered as increase immunity, did not know, no risk, and infection respectively all of which were wrong.

Part-C: Attitude Related Results

Table 11: Respondents' attitude on the weaning food started at 6 months after birth (n=385).

Weaning food started at 6 months after birth.	Frequency (n)	Percent (%)
Strongly agree	316	82.10
Agree	69	17.90
Total	385	100

The table shows that 316 (82.10%) respondents were strongly agree weaning food started at 6

months after birth and 69(17.90%) were agree.

Table 12: Respondents' attitude on the early weaning associate with the higher weight gain (n=385).

Early weaning associate with the higher weight gain	Frequency (n)	Percent (%)
Strongly agree	133	34.50
Agree	142	36.90
Not sure	44	11.40
Disagree	47	12.20
Strongly disagree	19	4.90
Total	385	100

The above table shows that 133(34.50%) respondents were strongly agree about the early weaning is associate with the higher weight gain. Other respondents answered agree, not sure,

disagree and strongly disagree which percentages were 142(36.90%), 44(11.40%), 47(12.20%) and 19(4.90%) respectively.

Table 13: Respondents' attitude on the breast feeding withdrawn at 24 months after birth (n=385).

Breast feeding withdrawn at 24 months after birth	Frequency (n)	Percent (%)
Strongly agree	217	56.40

Agree	145	37.70
Not sure	13	3.40
Disagree	10	2.60
Total	385	100

The above table shows that 217(56.40%) respondents were strongly agree about the breast feeding withdrawn at 24 months after birth. Other

respondents answered agree, not sure, and disagree which percentages were 145(37.70%), 13(3.40%), and 10(2.60%) respectively.

Table 14: Respondents' attitude on the Iron rich food such as green leafy vegetables included in the diet after six months of age (n=385).

Iron rich food such as green leafy vegetables included in the diet after six months of age.	Frequency (n)	Percent (%)
Strongly agree	251	65.20
Agree	134	34.80
Total	385	100

The table shows that 251(65.20%) respondents were strongly agree Iron rich food such as green

leafy vegetables included in the diet after six months of age and 134(34.80%) were agree.

Table 15: Respondents' attitude on the hands wash with soap and water before preparing of weaning food (n=385).

Hands wash with soap and water before preparing of weaning food.	Frequency (n)	Percent (%)
Strongly agree	307	79.70
Agree	78	20.30
Total	385	100

The table shows that 79.70% respondents were strongly agree hands wash with soap and water

before preparing of Weaning food and 20.30% were agree.

Part-D: Practice Related Results

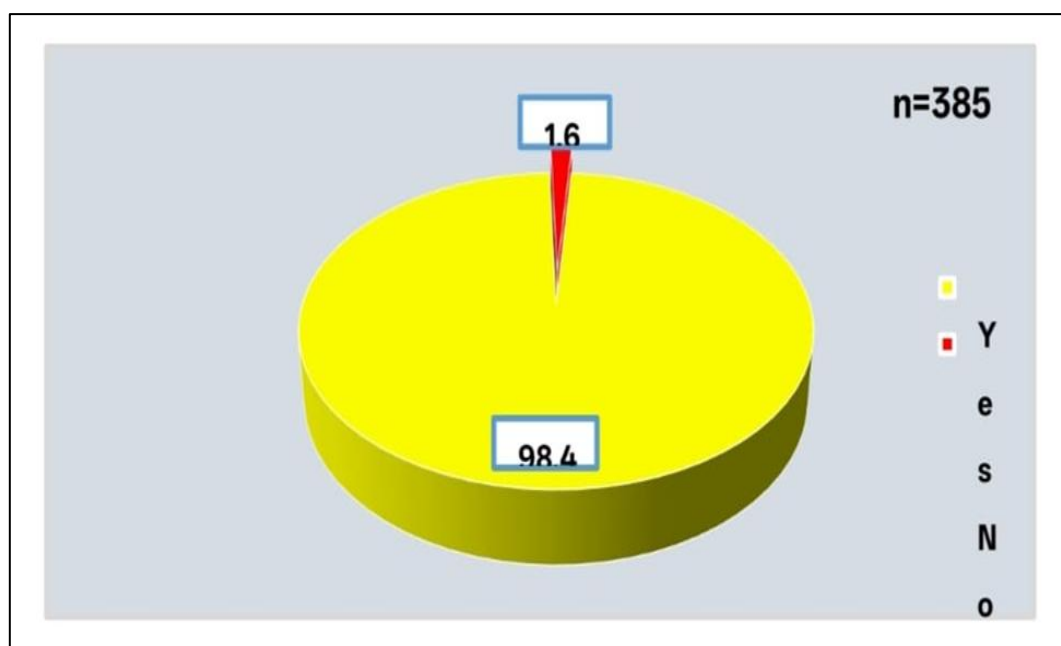


Figure 5: Distribution of respondents by giving of colostrum as a first food.

This figure showed that the largest number of respondents 379(98.40%) were give first food of

colostrum for baby and 6(1.60%) were not given.

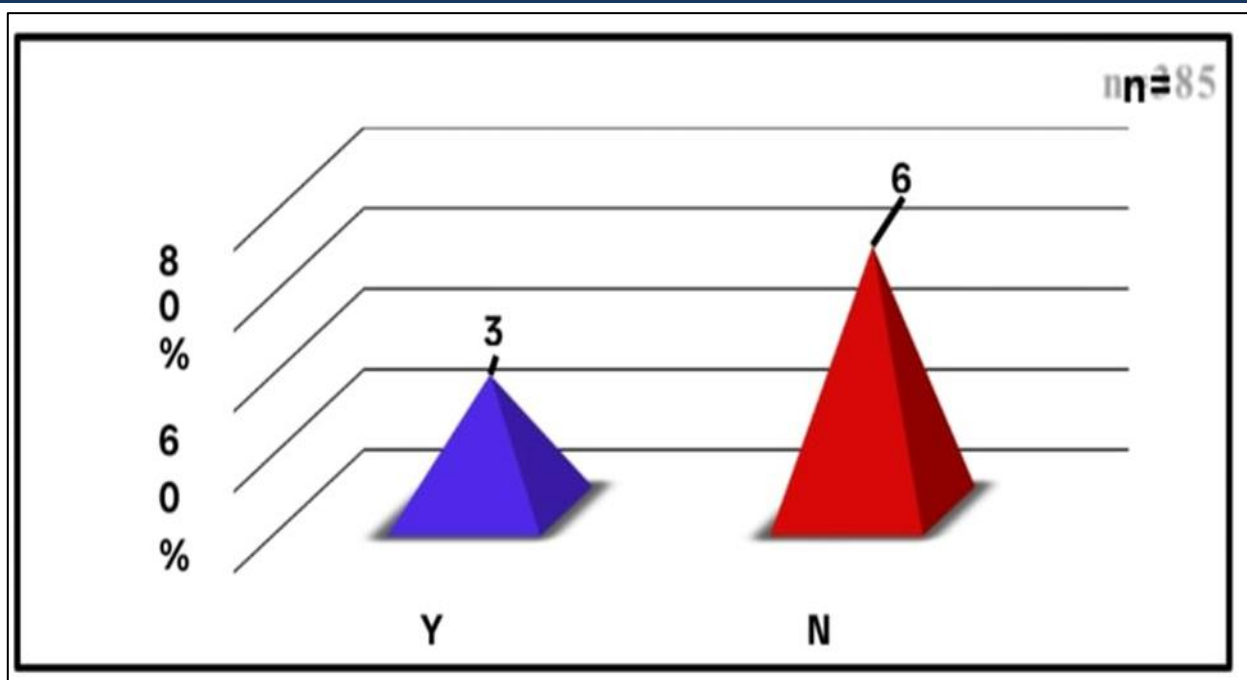


Figure 6: Distribution of respondents by giving formula milk within 6 months.

This figure showed that the largest number of respondents 254(66%) were not give formula milk

within 6 months for baby and 131(34%) were given.

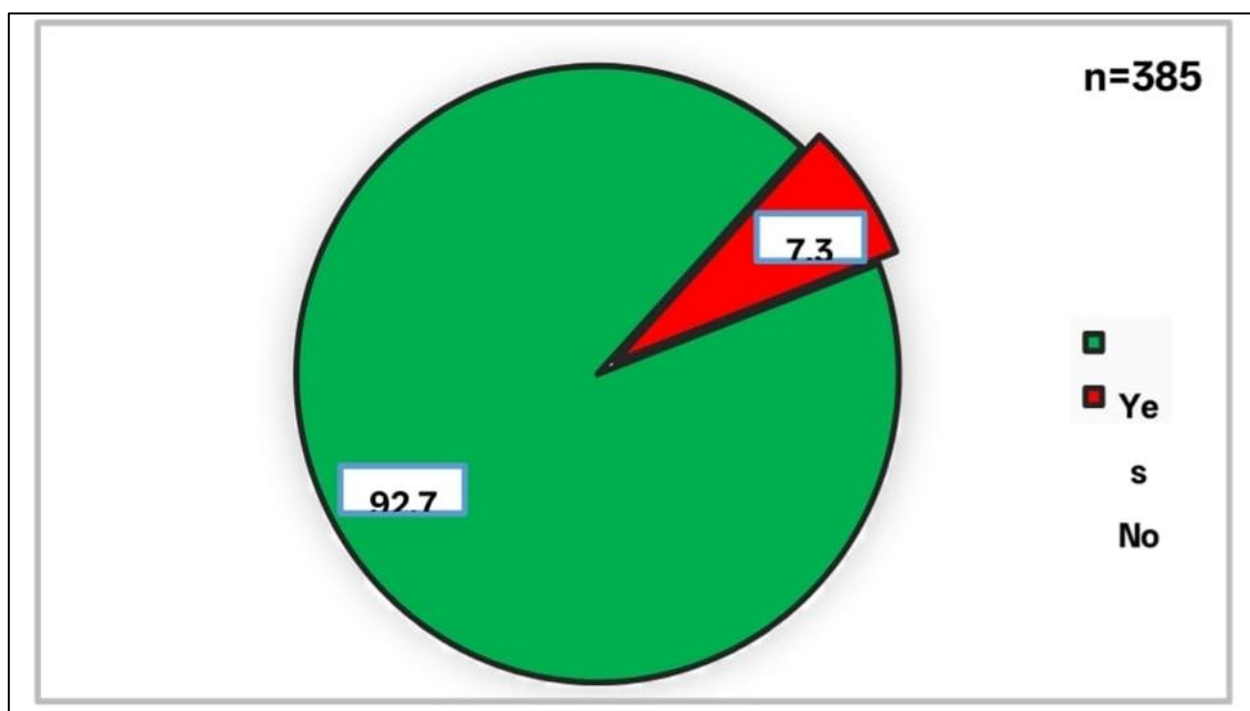


Figure 7: Distribution of respondents by giving weaning foods as khichury, fruits, egg, meat etc.

This figure showed that the largest number of respondents 357(93%) were give weaning foods as

khichury, fruits, egg, meat etc. and 28(7%) were not given.

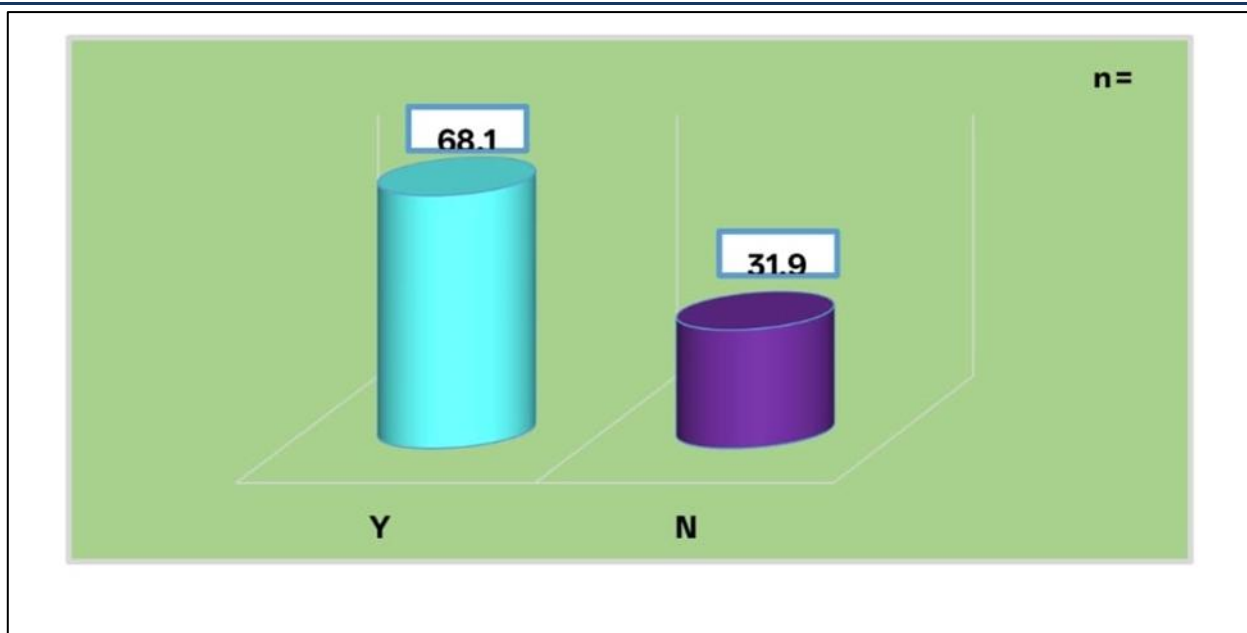


Figure 8: Distribution of respondents' by starting extra food in addition to breast feeding from 6 months

This figure showed that the respondents 262(68.10%) were give start extra food in addition

to breast feeding from 6 months of baby and 123(31.90%) were not given.

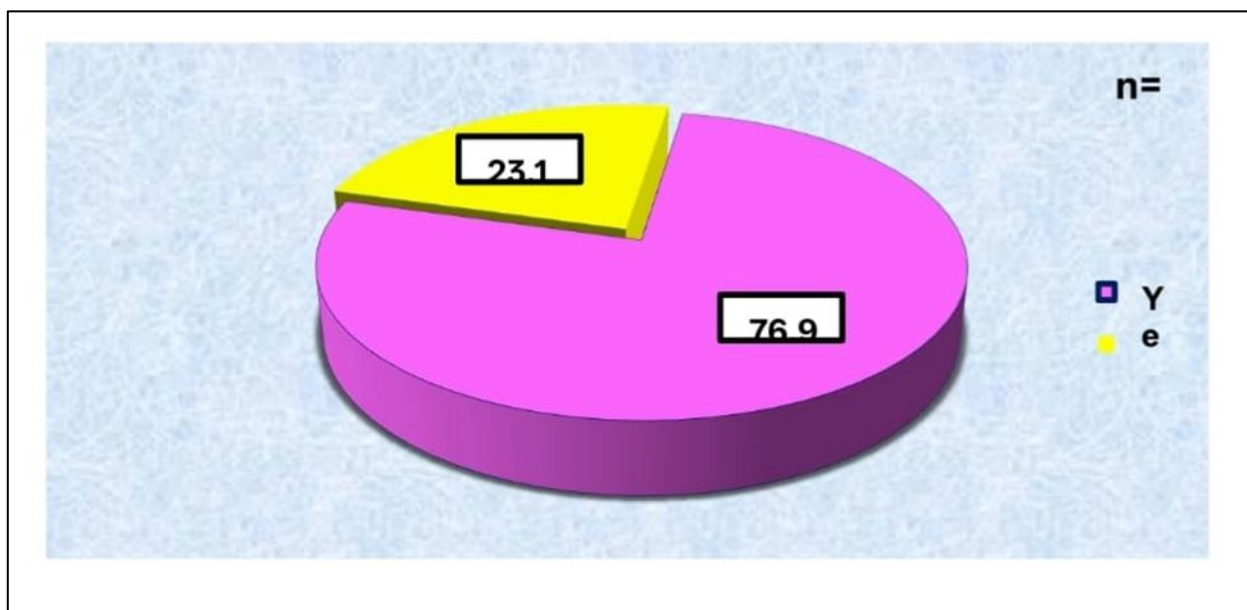


Figure 9: Distribution of respondents' by continuing breast feeding up to the age of 24 months.

This figure showed that the respondents 296(76.90%) were give breast feeding up to age 24 months

and 89(23.10%) were not given.

Table 16: Respondent Association between mother's education and the age of starting weaning food (n=385).

Mothers education	The age of starting weaning food.			Total n (%)	χ^2/p
	6 months n (%)	7 months n (%)	From 7 months n (%)		
No formal education	6 (1.60)	22 (5.70)	3 (0.80)	31 (8.10)	122.02/0.01
Primary	34 (8.80)	31 (8.10)	14 (3.60)	79 (20.50)	

Secondary	8	74	24	106	
	(2.10)	(19.20)	(6.20)	(27.50)	
Higher secondary	0	48	53	101	
	(0.00)	(12.50)	(13.80)	(26.25)	
Bachelor degree	0	46	22	68	
	(0.00)	(11.90)	(5.75)	(17.70)	
Total	48	221	116	385	
	(12.50)	(57.40)	(30.10)	(100.00)	

This table showed that, there was significant relationship between mother's education and the age of starting weaning food. Chi-square and p-

value were 122.02, 0.01. So, it was statistically significant.

Table 17: Respondents Association between mother's residence and the age of starting weaning food (n=385).

Resident	The age of starting weaning food.			Total n (%)	χ^2/p
	months n (%)	months n (%)	From 7 months n (%)		
	13	122	46	181	16.12 /0.01
Urban	(3.40)	(31.70)	(11.90)	(47.00)	
	35	99	70	204	
Rural	(9.10)	(25.70)	(18.20)	(53.00)	
Total	48	221	116	385	
	(12.50)	(57.40)	(30.10)	(100.00)	

This table showed that, there was significant relationship between mother's residence and the age of starting weaning food. Chi-square and p-

value were 16.12, 0.01. So, it was statistically significant.

Table 18: Respondents Association between mother's family income and the age of starting weaning food (n=385).

Family income... Taka / month.	The age of starting weaning food.			Total n (%)	χ^2/p
	months n (%)	months n (%)	From 7 months n (%)		
<10,000 BDT/month (poor class)	38 (9.90)	44 (11.40)	5 (1.30)	87 (22.60)	112.52 /0.01
10,000-30,000 BDT/month (middle class)	10 (2.60)	115 (29.90)	74 (19.20)	199 (51.70)	
>30,000 BDT/month (affluent class)	0 (0.00)	62 (16.10)	37 (9.60)	99 (25.70)	
Total	48	221	116	385	
	(12.50)	(57.40)	(30.10)	(100.00)	

This table showed that, there was significant relationship between mother's family income and the age of starting weaning food. Chi-square and p-value were 112.52, 0.01. So, it was statistically significant.

DISCUSSION

The study aimed at exploring the mother knowledge, attitude and practice regarding weaning food. Optimum nutrition is essential for proper growth and development of infant. Review

of literature revealed that there are wide variations in infant feeding influenced by various social and demographic variables. There are only few studies highlights infant feeding the mother knowledge, attitude and practice regarding weaning food.

According to analysis of this study, the significant findings focus that the mean age of the respondents was 25 ± 0.58 years; the minimum age of 22 year and the maximum age of 35year. Most of the respondents were Muslim 299 (77.70%), Hindu 84

(21.80%), and Christian 2 (0.50%). The respondents were 31(8.10%) no formal education, 79(20.50%) were primary passed, 106(27.50%) were secondary passed, 101(26.20%) were higher secondary passed, and 68(17.70%) were bachelor degree passed. Most of the respondents 204(53%) were live in rural and rest of 181(47%) were live in urban. The majority of respondents were housewife 232(60.30%), service 142(36.90%), daily worker 9(2.30%), and business 2(0.50%). The mean family income of the respondents was 2.03 ± 0.69 taka/month.

About the knowledge of mothers regarding meaning of weaning 343(89.10%) provide correct answer 42(10.90%) provide incorrect answer. The age of starting weaning food 221(57.40%) provide correct answer 164(52.60%) provide incorrect answer. The age of withdraw breastfeeding 312(81%) provide correct answer 73(19%) provide incorrect answer. The disadvantage of early weaning 238(61.80%) provide correct answer 147(38.20%) provide incorrect answer. The disadvantage of late weaning 292(75.50%) provide correct answer 93(24.50%) provide incorrect answer.

About the attitude regarding 316(82.10%) respondents were strongly agree weaning food started at 6 months after birth and 69(17.90%) were agree. Respondents were answered 133(34.50%) strongly agree about the early weaning is associate with the higher weight gain. Other respondents answered agree, not sure, disagree and strongly disagree which percentages were 142(36.90%), 44(11.40%), 47(12.20%) and 19(4.90%) respectively. Respondents were answered 217(56.40%) strongly agree about the breast feeding withdrawn at 24 months after birth. Other respondents answered agree, not sure, and disagree which percentages were 145(37.70%), 13(3.40%), and 10(2.60%) respectively. Most of the respondents were answered 251(65.20%) strongly agree Iron rich food such as green leafy vegetables included in the diet after six months of age and 134(34.80%) were agree. Most of the respondents were answered 307(79.70%) strongly agree hands wash with soap and water before preparing of weaning food and 78(20.30%) were agree.

About the practice regarding the largest number of respondents 379(98.40%) were give first food of colostrum for baby and 6(1.60%) were not given. The most of the respondents 254(66%) were not give formula milk within 6 months for baby and

131(34%) were given. The most of respondents 357(93%) were give weaning foods as khichury, fruits, egg, meat etc. and 28(7%) were not given. The respondents 262(68.10%) were give start extra food in addition to breast feeding from 6 months of baby and 123(31.90%) were not given. The respondents 296(76.90%) were give breast feeding up to age in 24 months and 89(23.10%) were not given.

Owais, *et al.*, in 2019 conducted a study in Bangladesh to examine the mothers' knowledge and attitudes towards complementary feeding in relation to timing of its initiation in rural. According to this study finding, Complementary feeding initiation was early for 7%, timely for 49%, and late for 44% of infants. Only 19% of mothers knew the WHO recommended age for complementary feeding initiation. The knowledge score was not associated with timely complementary feeding initiation. Mothers with the most favorable attitudes (highest attitudes score tertile) were more likely to initiate late complementary feeding compared to those with the lowest attitudes.

Naher, *et al.*, in 2019 conducted a study in Bangladesh to examine the lactating mothers' Knowledge and practice of weaning food. The mean age of the mothers was 25.18, (SD $\pm$ 4.32). Most of the subjects were Muslim. The results revealed that the lactating mothers reported moderate level of total knowledge, with the mean score was 16.13 ± 4.32 and the low level of total practice, mean score was 2.83 ± 0.27 . There were significant factors related to knowledge level were: non-Muslim mothers' ($p = 0.05$), higher educated ($p = 0.03$), get information from relative/others ($p = 0.05$), and start weaning ($p = 0.01$). Significant factors related to practice were older mothers' age ($p = 0.002$), having baby more than one ($p = 0.05$) and having older child age ($p = 0.001$), higher educated ($p = 0.008$), and period of weaning ($p = 0.01$). There was no relationship between total knowledge and total practices of weaning among lactating mothers' ($r = 0.02$, $p = 0.82$).

Bhatti, *et al.*, in 2018, conducted a study in Lahore to examine the mothers' Knowledge attitude and practice of weaning food in rural area. The Majority (85.7%) of the mothers of the community were educated and only 14.3% of mothers had no formal education. 81.9% of the husbands were educated whereas 18% had no formal education. The main source of this knowledge was friends and family with 27.8% and Health worker / Hospitals

with 21.8% whereas, 16.5% of the mother's had knowledge of weaning from TV and media and only 7 mothers had the knowledge of weaning.

CONCLUSION

This study revealed that the majority of the mothers 343(89.10%) showed adequate knowledge on the meaning of weaning and 221(57.40%) mother knew the age of starting weaning food in timely as 6 months, early starting 48(12.50%) as 5 months and late starting 116(30.10%) as 7 months of child. Most of the mother knew the need for hand wash with soap for before preparing of weaning and carry out proper practice of giving colostrum 379 (98.40%) and weaning as khichury, fruits, egg, meat etc. 357(93.00%). But 131(34.00 %) of mothers gave formula milk. Some mothers had little knowledge regarding the age of starting weaning food and practices are inappropriate. It is essential to give accurate information and education about weaning food to prevent malnutrition and ensure better growth and development of our children.

LIMITATIONS OF THE STUDY

- This was a hospital based study, so it might not have represented the community as whole.
- A non- probability type of purposive sampling technique was used to recruit the participants may contribute to unintentional sampling bias.

RECOMMENDATIONS

- Mother's knowledge and practice can be assessed after giving self-instructional module or structured teaching programme.
- Comparative study can carried out to assess mothers knowledge regarding weaning among rural and urban communities.
- Health education can be organized in the indoor and outdoor patients department as well as Primary Health Care Center in community.
- Health care professional must be aware the changes in order to provide knowledge regarding weaning food and practices for the mothers.

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