



## KNOWLEDGE AMONG MOTHERS ON UNDER FIVE CHILDREN MALNUTRITION: A CROSS SECTIONAL SLUM BASED STUDY

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### ABSTRACT

**Background:** Under-five children form a bulk number of demographic force. They are the future of the nation. Nearly 177 million babies are malnourished around the world. Malnutrition is responsible for nearly 45% of deaths in under five children. Mothers can play vital role to save these babies. **Objective:** This study was conducted to assess knowledge of mothers about malnutrition of under-five children in a selected slum of Dhaka city. **Methodology:** It was cross sectional study. Three hundred mothers were purposively selected to take face to face interview. Pre-tested structured questionnaire was used to collect data. Level of knowledge was determined by pre-defined score. **Result:** Mean age of respondents was 19.55±3.0 years. Most of the respondents were under secondary school certificate level education. Nearly half of the respondents were housewife. Mean monthly family income of respondents was 156.84±29.53 USD. Majority of the respondents (76 %) had knowledge on weaning food. The study revealed that about half of the study subjects had knowledge on preparation of khichuri (mixed food). About half of the respondents stated that diarrhea was the consequence of malnutrition. **Conclusion:** Overall knowledge on malnutrition among mothers needs to be improved. Mass media should be widely used to increase the level of knowledge of mothers on malnutrition.

**Key words:** Knowledge, Under five children, Slum

### 1. INTRODUCTION

Malnutrition is the major cause of disease burden in developing countries and is a principal factor inhibiting further rapid declines in child mortality. Approximately 70% of world's malnourished children live in Asia, resulting in the region having the highest concentration of childhood malnutrition. Prevalence of stunting and underweight are high in South Asia where one in every two preschool children is stunted. In fact, Bangladesh has the highest prevalence of child underweight of all countries in the world except North Korea, and only seven countries have a higher prevalence of child stunting than that of Bangladesh. [1] Family income, mother's education, sex and birth order of children are the important determinant of malnutrition. [2] Poor breastfeeding habits—only 37% of children are exclusively breastfed for first 6 months of life—encourage wasting. Discrimination against women leaves mothers unable to make decisions in their own households regarding the food and health of themselves and their children. In the face of rising food prices, insufficient nutritious food and illness continue to set the stage for malnutrition. Malnutrition is commonest in the poorest communities and in households of low educational status. Floods and other natural disasters severely compromise food security in rural areas. [3] Rural mothers in Bangladesh lack adequate knowledge about malnutrition risk factors. Forty-one percent of children under five are underweight and 43 percent are stunted due to malnutrition. The lack of awareness among rural mothers in our country is alarming. Few are conscious about the proper diet of an infant but many were ignorant about the aggravating effect malnutrition had on other childhood diseases. [4] This research will explore the knowledge of mothers in a selected section of the population. Likely it will encourage other researchers to continue forward and explore the total scenario of knowledge of mothers on malnutrition, who can act as a pivot to control it. Health policy making may take further steps to create health education awareness in this regard to be felt among the mothers.

### 2. MATERIALS AND METHODS

**Study Design:** It was a descriptive type of cross sectional study.

**Study Population:** All mothers of under five children of Bangladesh

**Sample population:** Mothers of under-five children who lived at Mohakhali TNT colony slum.

**Study Site:** The study was carried out at Mohakhali, TNT colony, Badda in the Division of Dhaka.

### Study Area:

**Mohakhali:** Mohakhali is one of the busiest places in Dhaka, Bangladesh. On its north there is Banani. On its south there is Moghbazaar. DGHS (Directorate General Health Service), BCPS (Bangladesh College of Physicians and Surgeons), Govt IHT(Institute of Health Technology, Dhaka), ICDDR, BRAC University and Govt Titumir College, Gausul Azam Masque and Digital Link BD are situated in Mohakhali.

**Badda:** Badda area 36.84 sq km, located in between 23°45' and 23°49' north latitudes and in between 90°25' and 90°28' east longitudes. It is bounded by KHILKHET thana on the north, KHILGAON thana on the south, RUPGANJ upazial on the east, GULSHAN, CANTONMENT, RAMPURA thanas on the west. Population total 320025; male 176810, female 143215; Muslim 305118, Hindu 11633, Buddhist 2894, Christian 329 and others 51.

**Study Period:** It was conducted from September 2013 to December 2013.

**Sample Size:** A common formula was used for sample size estimation. Due to shortage of budget and time limitation researcher took 300 samples.

#### Inclusion Criteria:

- The mothers who live in the area of study.
- The respondents who were willing to participate.

#### Exclusion Criteria:

- Those mothers unwilling to participate in the study.
- The mothers who did not permanently live in the area.
- Mentally retarded or handicapped.

**Sampling Technique:** Non-randomized purposive sampling technique was followed.

**Data Collection Tools:** A pre-tested, modified, interviewer administrated, semi-structured questionnaire was used.

**Data Collection Technique:** By face to face interview.

**Data Management and Analysis Plan:** All interviewed questionnaires were checked for its completeness, accuracy, and consistency to exclude missing or inconsistent data. Data were checked, cleaned and edited properly before analysis. The study was based on primary data with descriptive cross sectional design. The data were analyzed by use of software SPSS 16.0. Descriptive statistics were used for the interpretation of the findings.

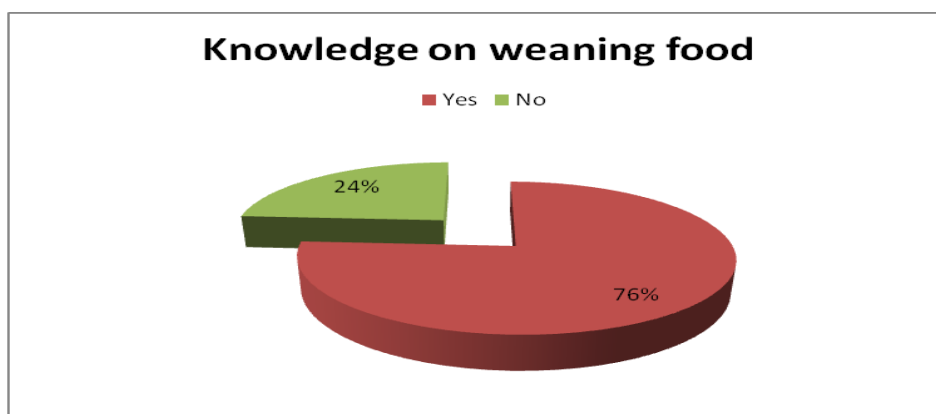
## 3. RESULTS

**Table 1:** Socio-demographic characteristics of the study subjects (n=300)

Items	Percentage	Mean ( $\pm$ SD)
<b>Age in years</b>		19.55 $\pm$ 3.0
<b>Education</b>		
Illiterate	22	
Primary	19	
Class VIII	25	
Secondary School Certificate	15	
Higher Secondary Certificate	13	
Graduation	6	
<b>Occupation</b>		
Housewife	47	
Service	28	
Business	3	
Others	22	
<b>Monthly family income (USD)</b>		156.84 $\pm$ 29.53

Mean age of respondents was 19.55 $\pm$ 3.0 years. Most of the respondents completed below SSC level education. Nearly half of the respondents were housewife. Mean monthly family income of respondents was 156.84 $\pm$ 29.53 USD.

**Figure 1:** Distribution of the respondents by knowledge on weaning food (n=300)



The pie chart shows 76% had knowledge on weaning food and 24% did not have.

**Figure 2:** Distribution of the respondents by knowledge on starting time of weaning food (n=228)

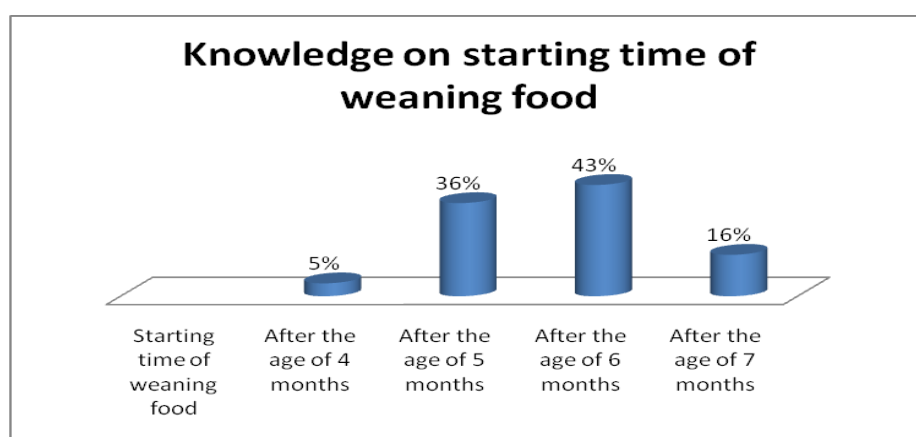


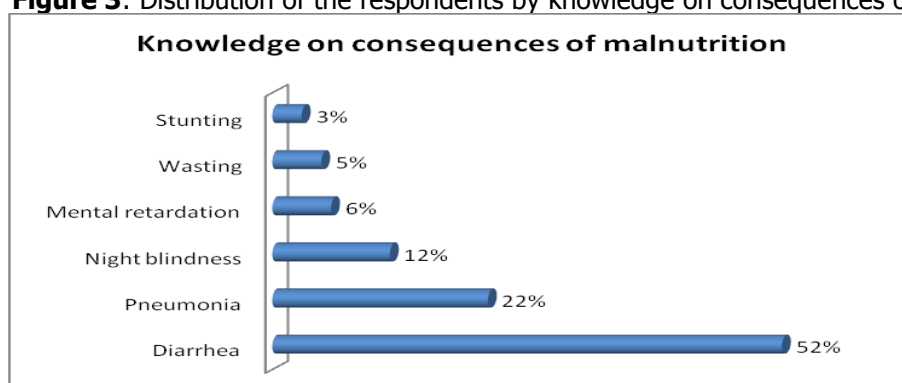
Figure reveals that 43% respondents had knowledge on starting time (after age of six months) of weaning food.

**Table 2:** Distribution of the respondents by knowledge on khicuri (mixed food) (n=300)

Knowledge on khicuri	Frequency	Percentage
Yes	138	46
No	162	54
<b>Total</b>	<b>300</b>	<b>100</b>

The table 2 demonstrates that 46% had knowledge on khichuri and 54% did not have.

**Figure 3:** Distribution of the respondents by knowledge on consequences of malnutrition (n=300)



About 52%, 22%, 12%, 5% and 3% respondents stated that diarrhea, pneumonia, night blindness, mental retardation, wasting, and stunting were the consequences of malnutrition respectively.

## 4. DISCUSSION

Nearly 41 million people of Bangladesh lived in urban areas, of which around 7 million are slum dwellers who lead a worse life than village people. The mortality rate of under-five children in slums is 50% higher than in rural areas. [5] The present study found that 43% of the respondents had knowledge on starting time of weaning food. Several studies have reported low levels of awareness of mothers regarding appropriate breast feeding practices in Bangladesh. [6-8] These portions of mothers need to be educated and motivated about the usefulness and proper use weaning food by the concern agencies for the betterment of health status of the children. Poor weaning knowledge was found in high (56 and 48) in case of early and late weaning time categories compared to normal weaning time. This finding might be due to lack of awareness or knowledge about proper time of weaning. A study conducted in Peru indicated that early weaning practice was due to wrong perception of maternal health problems. [9] A descriptive cross sectional study on mothers' knowledge and practice related to weaning was conducted in Butajira in 1994. A total of 1,543 mother-child pair was included in the study, of which 1,052 (68%) children were on weaning diet and 491 (32%) were exclusively breast feeding. Among children who were already weaned, 40% were reported to have been started on weaning food at the age of 4-6 months. Of the children who were reported to be exclusively breast feeding, 34% were beyond the age of 7 months. The most commonly used weaning food were cow's milk, adult food, sorghum water and cereal gruel in descending order and the most important reasons for mothers to start weaning were reduction of the amount of breast milk and mothers' belief that the child is at the right age to start weaning food. The majority of the mothers used "swallow or suffocate" method in feeding their children, though cups and bottles were also mentioned as important feeding methods. The study demonstrated the presence of inappropriate weaning practice in the area which needs appropriate intervention. [10] The present study found that about half of the respondents had knowledge on mixed food and consequences of malnutrition. The lack of awareness among rural mothers in the country is alarming. Few are conscious about the proper diet of an infant; many were ignorant about the aggravating effect of malnutrition. Diarrhea and pneumonia are responsible for 36% of deaths among children aged 1-5 in Bangladesh. According to the latest national Child and Mother Nutrition Survey (CMNS), only 30.9% of rural mothers have proper knowledge regarding the importance of exclusive breastfeeding in the first six months of life, and only 38.8% knew the proper age of complementary feeding. Maintaining a balanced diet is crucial in avoiding malnutrition. The people of the country, especially in the rural areas are not properly informed about the importance of having a balanced diet. [11] The time was not enough to cope up with the real picture of the level of the knowledge of the mothers. Finding might be associated with biases (information and selection biases)

## 5. CONCLUSION

It is concluded that about half of the respondents had knowledge on starting time of weaning food, mixed food and consequences of malnutrition. Overall knowledge on malnutrition among mothers was not good and need to be improved. Mass media should be widely used to increase the level of knowledge of mothers on malnutrition.

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## 6. REFERENCES

1. Pandey A. Mother's Status in the Family and Nutritional Status of Their under Five Children. Regional Leprosy Training and Research Institute, Lalpur, Raipur (C.G.), Pin- 492001. [Serial Online] 2001; 5(1):5-7 [Cited on 10th April 2015]. Available from: [url:www.docstoc.com/docs/2205629](http://www.docstoc.com/docs/2205629).
2. Rayhan I, Hayat S.K. Factors Causing Malnutrition among under Five Children in Bangladesh. *Pakistan Journal of Nutrition*. 2006 5 (6): 558-562.
3. UNICEF, BANGLADESH. Malnutrition leads to vitamin D rickets. A three year old girl in Cox'sBazar, Chittagong division. [Online] 2008; Vol 15 [Cited on 14<sup>th</sup> April 2015]. Available from: [URL:http://www.unicef.org/bangladesh/children\\_4896.htmv](http://www.unicef.org/bangladesh/children_4896.htmv).
4. Ministry of Health and Family Planning Welfare./May 2008-DFP/IEM. Press/N- 11000.
5. Health Experts. Lack of awareness causes malnutrition among children. Daily sun. Dhaka 31st March 2011.
6. Haider R, Kabir I, Ashworth A. Are breast feeding promotion messages influencing mothers in Bangladesh? Results from an urban survey in Dhaka, Bangladesh. *J Trop Pediatr*. 1999;45:315-318.
7. Zeitlyn S, Rowshan R. Privileged knowledge and mother' perceptions: the case of breast feeding and insufficient milk in Bangladesh. *Med Anthropol*. Q1997;11:56-68.
8. Das DK, Ahmed S. Knowledge and attitude of Bangladeshi rural mothers regarding breast feeding and weaning. *Indian J Pediatr*. 1995;62:213-217.

9. Rice S, Combs D, Fish L, Leeper J. Breast feeding and contraception in Peru. *J health popul nutr.* 2002;20(1):51-58.
10. Bekele A, Berhane Y. Weaning in Butajira, south Ethiopia: a study on mothers' knowledge and practice. *Ethiop Med J.* 1998 Jan;36(1):37-45.
11. Nayak HS. Bangladesh: Rural Mothers Lack Awareness of Malnutrition Risks. Toitomboor; Sep 2009 (IRIN).

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