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FEEDING PRACTICES OF UNDER-5 CHILDREN IN A SEMI-URBAN VILLAGE IN BANGLADESH

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ABSTRACT

Objective: To explore the reported feeding practices of under-five (U-5) children in a rapidly urbanizing village in Bangladesh.

Methodology: This was a study with qualitative exploratory design based on grounded theory. Researchers identified caregivers of U-5 children and shopkeepers in proximity to the village through purposive sampling. The researchers conducted five in-depth interviews, two focus group discussions, participatory rapid appraisal exercises and three informal interviews were done. For the purpose of triangulation, informal observations took place in households, nearby shops and with children on the streets.

Results: The study identified five main themes: family influences, caregiver's educational level, overall changes in time, the perception of "good" or "bad" food for health and preferences.

Conclusion*:* Exploring these themes regarding the feeding practices of U-5 children will be helpful in understanding the health and nutritional changes of nearby semi-urban areas going through rapid development.

Keywords: under-5 children, feeding practices, urbanization, Bangladesh

I. INTRODUCTION

On the way forward to Millennium Development Goal 1, Bangladesh has been trying to achieve the target of reducing prevalence of underweight under-five children (U-5) to 33% by 2015. However, the country achieved only 47.8% by 2005 [1]. Poor nutritional status remains one of the most important health and wellbeing problems in Bangladesh. Levels of malnutrition in the country is high - 43% of the U-5 children are stunted, 16.7% wasted and 41% are underweight [2]. Nutritional status is a result of various intricate interactions between the socio-economic status, overall health status, food consumption and availability patterns, education status, socio-cultural context and the individual level. However, most researchers agree that inadequate or inappropriate feeding patterns often lead to malnutrition on the individual level [2].

Breast-feeding, complementary feeding, adequate nutrition during infancy and early childhood are critical to the development of children's full human

potential [3]. UNICEF (2009) reports poor complementary feeding practices in most developing countries. As a result, majority of the children suffer from irreversible outcomes [4]. Contrary to popular assumptions, poor feeding practices do not only result from lack of food, resources or money but can also happen due to the wide availability and acceptability of unhealthy food. According to a survey conducted by Helen Keller International, children do not get food as often as needed and not from the right age. Whatever food items they get, are poor not only in quantity but also in quality [5].

Many developing countries, including Bangladesh, are going through rapid urbanization that is parallel to the emergence of the "nutrition transition" [6]. Nutrition transition refers to the increased consumption of unhealthy food (more refined sugar and processed foods) emerging in developing countries. Many developing countries are experiencing a 'rapid nutrition transition' due to the urbanization and globalization of food production and marketing with the expansion of mass media [7].Personal observations reveal that different brands of candy, chips, and ice cream are readily available for consumption even in rural villages of Bangladesh. Developing countries, like Bangladesh, can face a negative impact by this nutrition transition due to the already existing burden of nutritional deficiencies [7]. Previous research on infant feeding practices did not always provide adequate emphasis on the feeding practices ofU-5 children in the semi-urban areas of Bangladesh.

Therefore, the purpose of this study is to explore the reported feeding practices of U-5 children in a semi-urban village in Bangladesh that is currently changing due to rapid urbanization leading to the influx of various different businesses and factories. This qualitative study explores the breast-feeding practices, complementary/family feeding practices and other factors influencing the self-reported feeding practices as well as the reported changes in the feeding practices overtime.

II. METHODS

(1) Context Setting

The study was conducted in Bagnibari village in the Birulia Union of Savar Upazila under Dhaka district in Bangladesh. Savar is a town located about 24 km northwest of the capital, Dhaka. The town is undergoing rapid urbanization. Within a five-year period, an increased influx of factories such as garment and furniture factories has attracted many investors, migrants and workers from different places to avail of these business and job opportunities – making the area "semi-urban". Akran bazaar/market is one of the nearest hubs in Bagnibari village (population of 4,000-5,000) where many small teashops, convenience shops, roadside vendors, fruit and vegetable stalls serve as food sources for the local population [8].

(2) Study Design

This is an exploratory qualitative study based on the grounded theory approach (Fig. 1).This study design would provide insight into the context and scenario of feeding practices of U-5 children in Bagnibari village. The grounded theory approach would construct inductive theories from the data collected in the process of conducting the research. Sample target population was the primary caregivers of U-5 children. Purposive sampling method was used to find five mothers with U-5 children for In-Depth Interviews (IDIs) and thirteen mothers were identified with U-5 children to be included in two Focus Group Discussions (FGDs).Three shops nearby were selected conveniently for holding observation and informal discussion. Researchers took informed verbal consent proceeding with the interviews.

(3) Data Collection

Five IDIs, two FGDs, two Participatory Rapid Appraisal tools (PRAs) (free listing and pile sorting), three informal interviews and two informal observations were used for collecting data. The numbers of IDIs, FGDs, PRAs, informal interviews and observations were not pre-set but rather decided upon as the process of data collection and basic analysis continued side by side. The researchers conducted preliminary research via a mini-tour to familiarize with the area and to get a mental map of where the majority of houses were. The researchers spotted some houses with young children playing in the courtyards as well as communicated and identified focal person to begin building a rapport with the village residents, children and the shopkeepers in Akran bazaar. Before actually going out to the field for data collection, the researchers developed guidelines and checklists to explore the following areas: (a) breast-feeding practices, (b) complementary feeding and family feeding practices, (c) factors influencing feeding practices,

(d) how reported feeding practices changed over time.

Background demographic the information of the village was obtained from the Birulia Union office. The research team consisted of one native speaker as the interviewer and two note-takers/co-interviewers (who also served as observers).The native speaker also served as an interpreter and translated throughout the interviews.

The IDI and FGD guidelines included socio-demographic data to explore the various feeding practices on breast-feeding. These practices included pre-lacteal feeding (food given to newborn before breast-feeding or before breast milk "comes out", e.g. honey, sugar water, etc.), complementary feeding, family food feeding, eating habits of children, feeding practices during illness of children and feeding trend changes in time and the underlying perceptions. In conjunction with the two FGDs, the research team conducted two PRAs. Participants of the FGDs were asked to freely list the various types of food given to their children from birth until the present age (all were U-5).After the free-listing of the different kinds of food, pile-sorting was conducted: the participants were asked to sort the items into what they perceived as healthy or unhealthy foods for their children. Researchers conducted informal observations throughout the IDIs in households, during FGDs, in the shops and during conversations with the children on the streets to check whether they actually practiced what they had said they did. For the purpose of further triangulation, informal interviews were conducted with three shopkeepers (two local villagers and one from the nearby Akran bazaar) and children.

(4) Data Analysis

Data analysis took place throughout the data collection cycle to assure the quality of information collected. The researchers transcribed and cleaned the collected data into MS-Word documents at the end of each day for content analysis. To ensure validity, all researchers independently read and reread the transcripts, as well as cross-checked as a team to produce consistent findings. The research team defined general codes and sub-codes leading to the development of major themes and sub-themes. After individual coding was done the research team collaborated and decided on categories and inserted these categories into Excel spreadsheets for an easier visual analysis. The Excel sheets were printed, arranged and rearranged on the floor to create a flow chart and to identify the emerging themes. The general codes provided the support/body for the major themes. Finally, after the content analysis, five major themes were recognized. The following section on findings will present the major themes.

III. FINDINGS AND DISCUSSION

1. Findings

After analyzing data, five themes influencing the feeding practices of U-5 children emerged from the data. These themes included influence of family, education, change overtime, perception of good or bad food for health and preferences.

(1.1) Influence of family

Five IDIs were conducted, from which four mothers reported the use of "*cheeni-pani*" – sugar water-right after birth. Only one mother reported that she breastfed her baby right after birth. The four participants who gave sugar water reported the initiation of breastfeeding ranging from 2 hours to 1-3 days after birth. The 4 participants were asked why they chose sugar-water as pre-lacteal feeding. All four of them stated that the sugar-water was given to their children because "the sugar water cleans the baby's dirty stomach through the stool." Or, "this is to clean the stomach and to continue breast-feeding thereafter". One mother believed that provision of sugar (sweet) water would help ensure a sweet voice later in life. Another participant said, "The baby was crying and so we gave sugar water. Because [breast] milk normally comes out after 3 days". All four of them said that it was often some other family members who fed the newborn babies with sugar water. For example, one mother said, "Sugar water was given right after birth by his (the child's) aunts while I was inside the operation theatre".

All the participants from the IDIs and the FGDs responded that complementary feeding was initiated between 3 and 8 months of age for reasons as to why that were not very clear. The types of complementary food given by participants were similar – "*suji*" (mashed grain), "*khichuri*" (mashed rice with lentils), *biscuits*, *chocolates*, *chips* and *fruits* (*bananas*, *apples*, *grapes*).Family food such as rice, fish, meat, *dal* (lentils), and vegetables were initiated ranging from 6 months to one year, or, one and a half years of age. Two of the five IDIs participants, as well as the overall

consensus from the 2 focus group discussions mentioned "moza" as a primary reason for their choice.

"Moza" (literal meaning is 'tasty') is a term defining "junk food" in this area."Moza" ranges from sweet, sour to fried food. The common list of "moza" was compiled through the free listing and pile listing from the responses of the participants in all IDIs, FGDs and PRAs."Moza", particularly in the form of biscuits, are one of the first complementary foods given to a child from the age of 4 months. Many of these children were given "moza" at home by their own family members. One participant said, "*My son owns a small shop selling biscuits, rice and different kinds of "moza". So everyday he brings her*[the child] *moza*". One participant whose husband ran a shop said, "*Before we had the shop, she would eat rice, fish, meat, egg but now she eats less of these and more cake and chewing gum.*"Another participant said of her child, "*Her grandmother gave her biscuits*" while one mentioned the pressure of social status and becoming a victim of inferiority complex: "*I will not share the "moza" with you as you didn't share your "moza" with me earlier.*" "*It is considered shameful if they (parents) don't buy "moza" for their own children when they are crying*".

Family members also influence feeding practices during the child's illness. All participants from the IDIs and the FGDs reported the restriction of certain food during diarrhea, common cough and cold. From both FGDs, the consensus seemed to be the restriction of "moza", meat, fish, eggs and milk. When asked why they maintained these restrictions, responses were, "*Because family elders say not to*" or "*Because the doctor tells us to stop giving moza during diarrhea"*. Variation is seen in the restriction of food during the illness from the five IDIs. Two mothers reported that they did not restrict anything. One of them responded, "*I offer her whatever she requests during her illness.*" While the other reported that, she took her child to the doctor and followed what he prescribed. Another mother restricted meat, fish and milk upon the advice of her mother-in-law.

(1.2) Education

The education level of caregivers within five IDIs and two FGDs ranged from secondgrade to completion of secondary school. The participants with secondary level education had variation in their child feeding practices as compared to the participants with the primary education. One of the participants with tenth grade education had a nine-month-old child – her breast-feeding practice was different from the other participants. The participant reported, "*I never gave chips and other food (outside food)*".This participant's practice in regards to "sugar-water" also varied and she reported breastfeeding right after the baby was born.

In FGDs, educational level ranged from primary to secondary as well. Some differences were also found between the child feeding practices regarding "moza" between mothers with secondary level education compared to mothers with primary level education. One of the mothers with educational level of tenth grade had a nine-month-old son to whom she did not feed any "moza" and said that she does not plan to either. The other mother with the educational level of tenth grade also did not feed her 3-year-old child "moza" with the exception of mango juice (provided only when traveling for a distance). The rest of the participants did feed their children "moza" – one participant reported about her 3 years and 11 months old daughter, "*She eats biscuits, chips, RC (soft drinks), Pepsi, Tiger (energy drinks), pickles, mishti (sweets), and curd.*"Other participants also listed several types of "moza" fed to their children: *RC, juice, biscuits, chocolates, pickles, cakes, 7-Upand chewing gum* (a few common types listed by the three participants).The participants in the two FGDs with variation in educational levels also fed "moza" to their children and listed biscuit, cake, *chana-chur* (fried lentils) and pickles as the common types.

Perceptions about healthy foods were very similar. However, perceptions about unhealthy foods differed considerably between participants with secondary level education and participants with primary level education. A participant having secondary level education with a nine-month-old child said that she had not thought about what was unhealthy for the child but she said, "*I will not provide him with "moza"*".The only other participant with secondary education said, "*All outside foods* [food prepared outside home] *are unhealthy.*" The three participants with primary education had different perceptions about the certain types of foods they considered to be unhealthy. For instance, one participant specifically said RC (Royal Crown) Cola, juice and pickles were unhealthy because they contained saccharine

(artificial sweetener). Another participant said chewing gum and chocolates were unhealthy because "w*e don't know whether they are prepared under hygienic conditions or not*". Another mother mentioned dried chili pepper as unhealthy because "*it causes gastric(upset stomach)*".

(1.3) Change overtime

The participants in the five IDIs and two FGDs were asked about their childhood experiences with "moza" and whether their children's feeding and eating practices were comparable to their own. All but one participant from the IDIs reported eating "moza" during childhood but all made a point about how the current "moza" was very different from the "moza" of their time.One participant said that the "moza" of their time tasted a lot better than the current "moza". Another said, "*Nowadays, there are different varieties of 'moza' and different types. And these are also expensive*". Another participant also mentioned the high cost of the current "moza", "*We spent only ¼ of a taka to 1 taka in our school life. But now, these foods are expensive and have changed in package*."

According to the collected data, the expenditure on "moza" currently has increased significantly. The sample population, especially in five IDIs, the socio-economic levels were similar across four of them – they all owned their houses (some smaller than others), all owned farming land and cared for cattle. The one exception here was a participant who was educated, lived in a brick house, and who did not give "moza" to her children. Her spouse was working outside the country. Based on the observations, the four participants appeared to be making a decent living- the daily expenditure on the outside food such as "moza" ranged from ten to one hundred Taka (1 USD= 80 BDT).

When asked about the differences in accessibility to "moza" during their childhood one participant said, "*there were not enough shops or even if there were, they were at a distance and now, shops are more available*."Another participant said that there are many more shops now than there were before, making it easier for their children to want to go to the shops and ask for "moza" - "*Or when they go outside and see the "moza" in nearby shops – they insist on buying it*". The participant went on, speaking about the area and its recent "development", adding, "*Before, there were only 3 shops to be found in the area. Now, every house in the neighborhood is a shop*."

A participant from the IDIs mentioned that she lived in this area for more than ten years and claimed, "*This area was not as well developed as it is now. There were no shops nearby and if we needed to buy something, we had to go to Akran bazaar, which was too far away at that time*."Similar comments were made by the participants in two FGDs: there are many more shops in proximity to their homes nowadays and there are many different types of "moza" available. One participant went on to say that parents are much more attentive to their children and try to provide and fulfill their wishes. This comment was followed by another participant who said that their area (Bagnibari Village) has been changing rapidly, "*Even in the past five years, there has been a lot of changes; there are more factories in the area now*."

(1.4) Perception of good or bad food for health

Participants were asked to compare breast milk and pre-lacteal feeds from their point of view regarding infant feeding. Four participants from IDIs replied that breast milk and pre-lacteal feeding were not absolutely comparable. Follow up questions on the perception of pre-lacteal feeding brought out responses such as, "*They are not equal but I don't know about it. We are illiterate people,"* or "*Breast milk is better*." One particular woman reported that she did not practice pre-lacteal feeding. The same question was also discussed in FGDs and six mothers replied, "*Breast milk is better"* and only one mother said, "*They [breast milk and pre-lacteal feeding] are the same*". Underlying perceptions were also explored in FGD:"*Sugar water was given because the breast milk is not adequate in the first 3 days after birth and it was easy to swallow wand cleans out the stomach."*The same answer was explored in the IDIs. One mother said, ''*Condition of mother is not convenient to provide breast milk so we give sugar water."*

The IDI participants mentioned the following items as 'healthy food' for children: rice, vegetables, milk, eggs, fruits, fish and meat. During the FGDs the mothers said fruits, milk and vegetables were healthy. As many as eight mothers in the FGDs mentioned, *"Jackfruits are vitamin rich in our area,"* with one mother adding a comment, *"especially [rich in] Vitamin A"*. *Khichuri* (lentil, rice & oil) was also considered healthy for the children by all participants in both IDIs and FGDs. One of them commented, *"As I prepare it at my*

home, it is clean" and another mother said, *"Khichuri is homemade and good for health."*

Participants from IDIs revealed that "moza" is not a healthy food for children. They mentioned different types of "moza" including RC cola and juice, chewing gum, chocolates and pickles. Also in FGDs, they said, "Moza is not good; children eat it for appetite not for nutrition". This "moza" was also regarded as outside food in all IDIs and outside and "opened" food in FGDs. They reported the reasons why they believed it to be unhealthy food. *"We consider it as open food and unhygienic which sometimes cause indigestion and frequent loose motion"*. Participants from IDI reported, *"They are not good for health because we don't know whether they are prepared under hygienic conditions or not". "I never give her 'moza' because she got diarrhea when she ate it and I am very much afraid of diarrhea."*Two mothers from IDIs said they never give "moza" to children for the sake of health.

There were some arguments among FGD participants regarding perceptions of good or bad food. For example, one mother in an FGD said, "*Fish is not good for children and it causes worms*" but other mothers disagreed and said that fish was good for children. Similarly, all mothers believed that packet juices are not good and cause cold in children because they contain no vitamins whereas one participant argued, "*It is good and I like it, I give it to my children*". Moreover, two mothers in FGDs believed that formula milk was not good because it contained "chemicals-melamine" whereas the rest of the mothers considered it safe for their babies.

All participants agreed that chocolates caused dental problem in children. "*Shingara*" (local fried food) and dried chili were perceived as causal agents of stomach ache and gastritisamong children. Chewing gum was also considered unhealthy because it contained rubber and saccharine, the artificial sweetener. They also considered "Moza" as a causal agent of worms. Regarding their perception on "moza", one mother from FGD expressed, *"For children it is 'moza' and we think it is not good but for adults we call it snacks and we enjoy it"*.

Family feeding practices are also linked to perceptions of good and bad food. *"She (the baby) likes spicy curry but I don't want to give it to her because it causes problem in defecation and it is spicy*."Even family foods are considered bad if they go stale. One mother said, "*My son and daughter never eat leftover food. They don't like it and I have to prepare new dishes every day*."

Based on their perceptions of good (=healthy) or bad (=unhealthy) food for children, the diet restrictions and perceptions in case of illness in children were also explored. All participants gave diarrhea as an example and reported the feeding practices. *"In case of diarrhea, saline and 'khichuri' (lentils, rice & oil) are encouraged while sour food, milk and meat are restricted as they cause more diarrhea."* Findings from FGD showed that the mothers restricted "moza" especially "chana-chur" (fried lentils) and "jhalmuri" (spicy puffed rice) and other "open" foods [street foods] in case of diarrhea in children as they considered these foods to be dirty. IDI participants reported that they restricted fish, meat and milk in case of diarrhea (according to the advice of a local traditional healer) and the rest of them said they imposed no food restriction in case of diarrhea and continued to provide normal feeding provide as they wished, including "moza". "Moza" eating was restricted among20% of IDI participants during the illness of their children.

(1.5) Preferences – children's choice vs. parents' desire

During IDIs and FGDs, mothers mentioned the names of the food their children took. Usually rice, khichuri, chapatti, fish, meat, potato, egg, curry, dal, leafy vegetables, mustard oil, carrots, pumpkin, vegetable, curd, puffed rice with sugar, fruits, formula milk, breast milk (young children) and also outside food, "moza". One participant, a mother of a seven-month-old child, had exclusively breastfed her child up to seven months. Other participants gave formula milk along with breastfeeding. Most of the participants started giving complementary feeding before six months of age. Regarding the frequency of the common food it varied but the pattern was: rice every day, meat 1- 2 times/week to 2 times/month, fish (2 times/week), vegetable 2-3 times/month, dal 1 time/week. One of the participants from IDIs described her daughter's daily food habit as, "*For breakfast and dinner, she eats very little amount of rice sometimes with potato curry. Sometimes she eats fish 1-2 times per week. She sometimes eats meat (beef/chicken) 1-2 times per week as well. Sometimes she wants to eat puffed rice with sugar;*

she also likes to eat boiled eggs 1-2 times per week. She skips lunch but throughout the day, she constantly eats "moza". I always try to forcefully feed her – she is very tough when it comes to eating".

A common/specific type of food habit was observed among the children who ate "moza" regularly. Most of the mothers reported that they had to feed their child forcefully. One in-depth interviewee said, "*Her father has to feed her. She eats 'moza', you see, she is chewing gum now. All she eats is 'moza'. As she rises from her sleep in the morning, the first thing she wants is cake and doesn't eat family food…. Her father has to forcefully feed her. She doesn't eat family food by herself at all. Every day she goes to the shop and eats anything she wants.*" The participants from the FGDs also mentioned that their children were eating much less family food and sometime refused to take family food after taking "moza". Sometimes they also skipped meals. Their habits shaped by the intake of "moza" as "moza" had become a habit of its own. One participant from FGDs said that her child had to have some "moza" every day and night or it would start crying. One participant from IDI said, "*Every night, her older brother brings "moza" for her and leaves it at her bedside to eat when she wakes up at around 3 A.M. Sometimes, she gets up and eats it and sometimes she has to hold it in her hand and sleep with it. Throughout the day, she constantly eats 'moza'.*" From observation, it appeared that children were taking "moza" at any given time of the day.

In most cases, "moza" ranked at the top of the list of children's favorite foods. FGD participants said, "*The children didn't like to eat home food like rice, even when given forcefully, rather they preferred to eat 'moza' happily and willingly*."

2. Discussion

The findings of the study explore many themes of the conceptual framework (Fig1). Feeding practices of infants and young children are evidently influenced by different interrelated factors such as individual family norms and practices, health knowledge of caregivers, community's cultural beliefs on nutrition and various environmental factors. The conceptual framework in this study is inspired by UNICEF's extended conceptual model of child development [9]. Family influences are observed through the feeding practices of U-5 children. For example, pre-lacteal feeds given to the newborn and stopping of breast-feeding are often decided by other family members. This is true for other parts of the world as well. For instance, a study conducted in Malawi showed that child feeding practices were influenced by family, in particular, by in-laws [10]. Family influence in decision-making during the illness of a child is apparent by the restriction of certain foods, such as fish, meat, milk and eggs. Family influences are also shaped by cultural perceptions and traditional feeding practices, such as the perception that pre-lacteal feeding of sugar water was important to clean out the baby's stomach. The same result was obtained (sugar-water was given to clean the stomach and rid of stool) by other authors who explored cultural beliefs and pre-lacteal feeding [11]. Such traditional beliefs may negatively affect the health and nutritional status of the child [12].

The researchers observed that mothers with higher education were more likely to eliminate pre-lacteal feeding and initiate complementary feeding after 6 months of exclusive breastfeeding. The complementary foods given by such mothers were not "outside food". Mothers with lower education were more likely to include pre-lacteal feeding of sugar-water and provided "biscuits" at a young age, beginning at 4 months. Other studies have also pointed out maternal education as one of the major determinants of nutritional status of children. [13]

Early initiation and practicing/feeding of "outside" food shape the later eating habit and pattern of the young children. From the study sample, most children ate "moza" all day long affecting their intake of family foods (nutritious) and skipped meals leading to unsuccessful forceful feeding of the child. The failure of forceful feeding of children is a common phenomenon that was also observed elsewhere with consequences on the nutritional status of the child [14].

Perception of caregivers about good (=healthy) or bad (=unhealthy) food for health shaped their feeding practices. Due to the culture of "moza" in the area, children are sometimes given "moza" as complementary food from a young age, making it their habit eventually. Hence, forceful "healthy" feeding of family food fails, as the habit of eating "unhealthy" food has already been formed. Regardless of family income, parents had to spend some money to buy "moza" for children as "moza" eating had become habitual among them. However, effect of "moza" on child health and nutritional

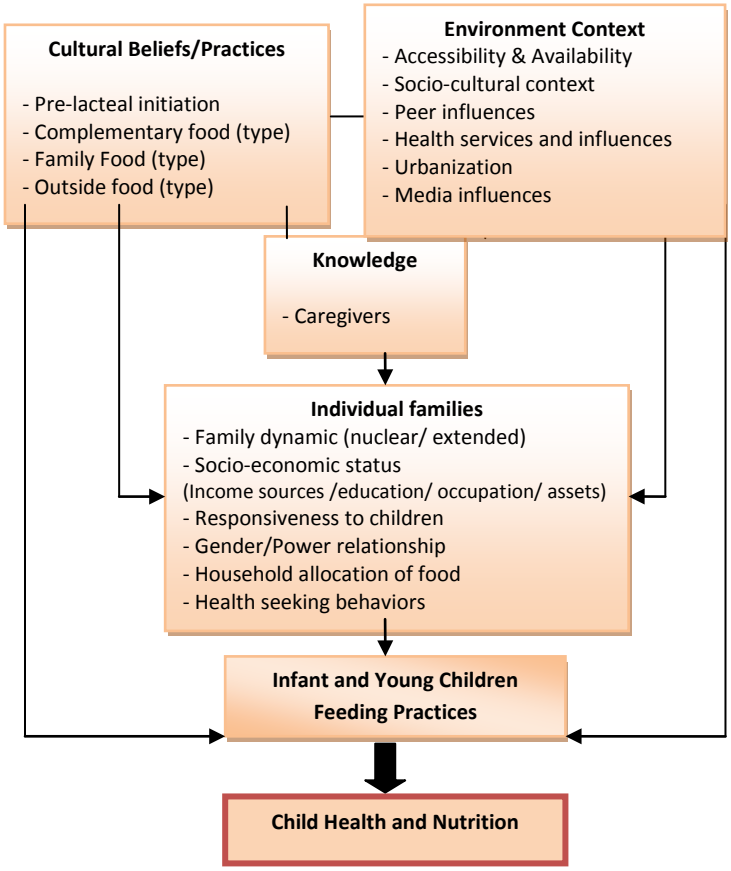
status was not explored in this study as it was beyond the scope.

Many participants reported a rapid change of the area and perceived it as a cause of the increased consumption of "moza" among their children. Changes in recent years, such as increased influx of factories, have transformed the village to a semi-urban area. Such rapid changes in semi-urban areas, perhaps led to the changing, feeding and eating practices among children [15].According to one of the shop keepers the inventories had to be modified due to the demand by children for popular brand name (foods and snacks) viewed on TV, newspapers or elsewhere. Another research paper also pointed out the influence of media on junk food eating habit among children. [16]

An increase in the number of shops, an increase in the varieties and types of "moza", the increased price and the increased consumption are changes that have occurred over time and are still happening. The generation differences are reflected in the consumption and availability pattern. The different types, varieties, changed packaging and media influences attract children to eat more junk foods ("moza") with high cost. This can be attributed to the negative health and nutritional outcome not only on individual level but on a socio-economic as well as national level.

IV. FIGURE

Fig1. (Conceptual Framework Model)



After preliminary literature search, the above micro-level factors were identified to be most influential on Infant and Young Children's Feeding Practices and the overall health status of the child. Individual family, Cultural Beliefs/perception and the Environment are the three major factors are perceived, on a micro-level, to affect the feeding practices. On a macro-level, perceive urbanization and media are influential in the Infant and Young Children's Feeding Practices.

V. CONCLUSION

After exploring the five emerging themes from this study, the effects of rapid development of that area on the diet of the population living in the semi-urban Bagnibari Village seemed to be evident. Cultural and traditional beliefs and practices hold high value amongst the family structure as well as the perception of "good" and "bad" food in the study sample. However, the influence of media and advertisements seemed to have a strong influence. They shaped the eating habits and desires of the young children in this area. Education level was also an important factor. Mothers with a higher education decided against "moza" and seemed to provide a healthier feeding practice. By exploring these themes regarding the feeding practice of U-5 children further, it might be possible to understand the health and nutritional changes of the nearby semi-urban areas. Although this study cannot provide sufficient evidence to generalize the findings to all semi-urban areas of Bangladesh, this initial exploration hopes to initiate the basic understanding of the semi-urban feeding practices of U-5 children to a certain extent.

Limitations

The major limitations faced by the researchers were time and the language barrier. The time available to conduct this study was too short to conduct an adequate number of interviews and observations. The time of data collection was also a factor as the mothers had household chores to complete and needed to attend to their children throughout the day. During the FGDs many mothers were distracted by their children or had to do household chores. This also factored into the time of availability of the mothers as well as the research team, as the team had an intensive schedule to work with.

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REFERENCES

1. Bangladesh Bureau of Statistics. *Millennium development goals Bangladesh progress at a glance*. Retrieved May13, 2010, from http://www.bbs.gov.bd/dataindex/Millenium%20Development%20Goals.pdf. (2007).
2. National Institute of Population Research and Training (NIPORT), Mitra and Associates, and Macro International. Bangladesh Demographic and Health Survey 2007. (2007)
3. USAID. Improving Complementary Feeding Practices: A Review of Evidence From South Asia, *IntraHealth International, Inc.*,http://www.intrahealth.org/intrahealfile/media/maternal_children_health_family/planning/ER_B. (2008)
4. UNICEF. (November, 2009). Nutrition: Infant and Young Child Feeding. http://www.unicef.org/nutrition/index_breastfeeding.html (2009)
5. Helen Keller International, Bangladesh. Nutritional Surveillance Project Bulletin no. 6.Helen Keller international worldwide. (2001)
6. Dancer, D., Rammohan, A., Simth, MD. Infant mortality and child nutrition inBangladesh. *Discipline of Econometrics and Business Statistics.* The University of Sydney, Australia. (9): 1015-35. (2008)
7. Caballero B, Pokin M B. *The nutrition transition.* Academic press. Retrieved March 13,2010. (2002)
8. Annual report, Birulia Union Office, Savar (2009).
9. World Health Organization. The Importance of Caregiver-child interaction for the survival and healthy development of young children: A review. (2004) http://www.hsrc.ac.za/Document-1656.phtml
10. Kerr, B. B. et al. "We Grandmothers Know Plenty": Breast feeding, complementary feeding and the multifaceted role of grandmothers in Malawi. *Social Science & Medicine.*66. 1095-1105. (2008)
11. Kathleen, M. et al. The Practice of Prelacteal Feeding to Newborns Among Hindu and Muslim Families. *Journal of Midwifery & Women's Health.* Clinical Rounds.54 (1).www.jmwh.org. (2009)
12. Engle, L P., Menon P., Haddad L. Care and Nutrition: Concepts and Measurement. http://digitalcommons.calpoly.edu/cgi/viewcon

tent.cgi?article=1001&context=psycd_fac (1999)

13. C L Smith, T M Ruel, A Ndiaye: "Why is child malnutrition lower in urban than in rural areas? Evidence from 36 developing countries*" World Development*, 33 (8), pp 1285–1305. (2005)
14. Moore, C. A. et al. Responsive Complementary Feeding in Rural Bangladesh, Social. *Science & Medicine*. 62.1917-1930. (2006)
15. Gray, M. Child Health in Urbanizing World: review article, *Acta Paediatr*. Taylor & Francis 91:1-8. (2002)
16. H.G. Dixon et al. "The effects of television advertisements for junk food versus nutritious food on children's food attitudes and preferences" *Social Science & Medicine*, 65 pp 1311–1323. (2007)