



Ecology and Health: Exploring the Status of Child Health Care in a Haor Village of Bangladesh

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Article History

Received: August 29, 2020

Revised: September 24, 2020

Accepted: October 2, 2020

Published: October 7, 2020

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Abstract

This paper will explore child health care and treatment seeking behavior of villagers and presents factors that discourage them from using public health facilities. The perspective of human health is not only stay behind in the contact between the disease and the human body and the extermination of the demon by providing few medicines rather it is a complex web where multiple factors are affecting human to live a sound life. The environment has a diverse effect on human life: some indulge humans with it extravaganza while some impose serious theaters but one thing in common, every environment shares basic problems of acquiring and allocating space, food, energy and resources for health. Haor people have endless problems to meet, starting from food to basic human rights. Maintaining a healthy life does end up with some formality of going to some popular and folk treatment though going to professionals is rare. Government and non-Governmental organizations have a variety of scope to improve the situation by providing health infrastructure, awareness building measures, eradicating superstition and including health education in the school curriculum.

Keywords: Child; Health care; Popular; Folk; Professional; Bio-medicine.

1. Introduction

The awareness of child health issues and unpleasant environmental circumstances within Haor area is an increasingly important concern for developing countries like Bangladesh. From the past decades it is shown that around 61.3 percent of all children death occurs within the first month of life. This is because the child has to adapt itself rapidly and successfully to an alien external environment [1]. Malnutrition is the most widespread condition affecting the health of children. The main reasons for malnutrition in Haor villages are inadequate knowledge of nutritious food, ability to buying nutritious food, social custom, traditional beliefs and taboos. In Haor area Environment is the main source of food. Ecology and Health are interrelated. Most diseases and malnutrition of this locality has impact of ecology and the environment.

Ecology generally refers to the structural and functional interrelationship among the living and non-living organisms and their physical environment within which they exist and Haors are saucer-like depressions, subject to flooding in wetter months. Haors have a wide range of ecological, socio-cultural, economic and commercial importance. This area contains a very rich component of biodiversity which have local, national and regional significance. Haor people have a deep relationship with their environment. Haor also supports a significant range of activities to sustain the people of that region.

Health is a multidimensional phenomenon. It is one of the basic needs of human being. Bangladesh is a developing country. Health service in most of people of our country are unconscious about their health and health care system. Especially the rural people to take the convenience of health caring services. Government of Bangladesh (GOB) and non-governmental organization concern about the health care services and health care system in rural community to urban people. The health care policy of our country is based on primary health care as its key approach to provide health care to the population. Primary health care services can be characterized by their availability, accessibility, utilization, coverage, quality and impact. Of particular concern in our country is ensuring that high quality primary health care services reach those most in need namely the poorest, least educated and geographically most isolated members of our societies.

In the community level in respect of primary health care programs, Bangladesh launched some activities, which are a good example of self-care practices, promoted by the governments and NGO's. But more specific health care research is needed in Bangladesh. In developing countries like Bangladesh their still much need for a clear conceptualization of health care practices.

In the above background the broad objective of our study is to explore child health status and health care system in the rural community named Gourokorno in the Moulvibazar area, the outcome should be directed to their health

care practice and accessibility of the health services which provided by Governmental and Non- governmental organization. Other specific objectives are to explore the relationship between ecology and health, to identify the health care pattern of the child and diseases of Gourokorno village, to explore the socio-economic condition and perception of their health care system, to inquiry the availability and the accessibility of the health care services in the village and to know about the health services provided by the Government and Non-Governmental organizations aiming towards children.

2. Reviewing Some Literature with Theoretical Linkage

2.1. Theoretical Understanding

The environment plays a big role in humans. Combination of social, biological and environmental dynamics effect on health (cited in [McElory \[2\]](#)). Culture is considered a continuous adaptation of humans with nature. McElory and Townsed saw that medical ecology considers health to be a measure of how well a population adapts to its environment. The medical ecological approach has a key indication that health is a measure of environmental adaptation and that can be studied by using this model. As studied populations merely depend on Haor has a great influence on their Health and Culture. Scholars state that, as the concepts about an incidence of disease and its treatment that is employed by all those affianced on the clinical process [\[3\]](#). In complex society Due to human nature they have a practice to individual intersecting of all models at a time of health care: popular sector, the folk sector and the professional sector. For understating the study population both approaches has been applied in this study.

2.2. Popular Sector

The popular sector is family member centered treatment. Here old family member especially grandparent play an important role. Helman said that in this sector the family was the main arena of health care. It is a real site of primary health care in any society. It has a big influence on indigenous knowledge without considering any formal or informal knowledge and practices of medical professional even traditional healers. Besides, these types of options can avail without payment. Here most ill health is recognized and then treated. It is the real site of primary healthcare in the villagers. In community villagers who are the study people healers of the popular sector are old members of the family, friends, neighbors, relative's parents, grandparents and others. The popular sector is made up of a series of informal and unpaid healing relationships. Even local Pharmacists a good source of health advice for many conditions.

2.3. Folk Sector

This sector was mainly seen in non-western societies (like Bangladesh). Folk heaters sheared basic culture value and word view of communities in which they live, including beliefs about the origin, significance and treatment. Witchcraft sorcery or supernatural causes, God is spirits and aspects of a patient's life including their relationship with other people's natural environment and with supernatural forces as well as any physical or emotional symptoms. In this sector, the healers are not part of the official medical system and occupy an intermediate position between the popular and professional sectors. In every society different types of folk healer are existing like some are bone-based, untrained midwives, kabiraj, spiritual leathers from an erogenous group with much individual variation in style and outlook but sometimes they are organized into an associate of healers, with rules of entry, codes of and the sharing of information.

2.4. Professional Sector

This sector is the domains of medical specialist and they are legally protected and control membership. Knowledge and quality of medical practices using formally recognize profession. It is also known as allopathic or biomedicine. It includes not only physicians of various types and specialist but also the recognized Para-medical profession such as verses. In most countries especially in the western and non-western world the practitioners of scientific medicine from the only group of healers whose positions are upheld by law. They enjoy Niger social status, greater income and more clearly olefin rights can tightly control their patient's diet, behavior, sleeping patterns and medication and can imitate a variety of tests, such as biopsies. X-ray or vene section

2.5. The Ecological Model

The inter section of the social and physical environment and their effects food and nutrition. The model begins with the individual biological needs for nutrients and psychological needs for nurturance. This incorporates a life-cycle approach and takes into account individual and population variations nutritional needs for biological and psycho-biological functioning. The physical environment includes climate, water resources, soil characteristics and flora and fauna.

Besides, the explanatory model (EM) introduced by Kleinman, has been used in this research. It is determined by [Helman \[3\]](#) as the notions about an episode of sickness and its treatment that is employed by all those engaged on clinical process. Kleinman said also on EM that lay EM tend to be idiosyncratic and changeable and to be heavily influenced by both personality and cultural factors.

3. Study Area

Haor is like a basin and located between the banks of river. Haor is an internal wetland with having fresh water and a source of different types of fish. The Haor ecology is different from other parts of Bangladesh considering geographical characteristics. Not merely the ecology but also the livelihood and culture are different than others of Bangladeshi culture. Haor wide range of importance like socio-economic, cultural diversity and profit making. Hakaluki Haor situated in the north-eastern part of Bangladesh it is largest Haor of Bangladesh consists of Kulaura, Barlekha, Fenchugonj, Juri and Golapgonj Upazila under Moulvibazar and Sylhet districts. The study area covered Kulaura Upazila under the Moulvibazar district where the dependency on haor, inadequate knowledge about nutrition and unavailable health service are important reasons for diversified health service dependency. For this study primary data has been collected from Gourokorno village.

4. Research Methodology and Data Collection Techniques

This was a qualitative study in nature. Research methods include 12 Structure and semi-structured interviews, 1 Focused Group Discussions (FGD) and 1 Key Informant Interviews (KIIs) from the inhabitants of Gourokorno village under Kulaura Upazila. The present location of research is Gourokorno village where live 1000 members of people and the number of the family is 98. There have 200 children age limit 0-12 years.

To select the targeted respondents a multi-stage randomized sampling technique was followed. The key components of the study tools were socioeconomic characteristics, educational background, landholding and some objective related issues.

4.1. Number of the Respondents

Among 1000 peoples of the study area, 25 respondents are having been intensively interviewed in this study both the males and females have been conducted for the interview in such issues:

4.2. Percentage of the Respondents of the Basis on Age

At first age is considered as the basis characteristics of respondents which are given below:

Table-1. Distribution of the respondents based on age

| Age group | Number | Percentage |
|-----------|--------|------------|
| 15-25 | 3 | 12% |
| 25-35 | 7 | 28% |
| 35-45 | 8 | 32% |
| 45-55 | 3 | 12% |
| 55-65 | 2 | 8% |
| 65-75 | 2 | 8% |

These age groups were formulated into six broader Categories, as for these have no respondents belongs under 15 and up to 75 years. So, the age limits are 15-75 every age group contains of Sampling.

From this table it is understood that maximum respondents were within age group 35-45.

4.3. Percentage of the Respondents Based on Sex

Based on Sex, percentage of respondents is given in Table 2.

Table-2. Distribution of the respondents based on sex

| Sex group | Number | Percentage |
|-----------|--------|------------|
| Male | 15 | 60% |
| Female | 10 | 40% |
| Total-25 | | 100% |

From the table, we can see that male respondent are 15 and female respondents are 10 which are respectively 60% and 40%.

4.4. Literacy Condition of the Respondents

In this village, the respondents stated that they are educated. But there some categories were seen among them. There have also some illiterate in the study area. Educational profile of the respondents is given below.

Table-3. Distribution of the respondents based on education

| Educational Categories | Number | Percentage |
|--|--------|------------|
| Masters and Bachelors | 5 | 20 |
| HSS and SSC | 7 | 28 |
| Primary or who can give signature at least | 8 | 32 |
| Illiterate | 5 | 20 |
| Total | 25 | 100 |

4.5. Occupational profile of the Respondents

In this village, most of the people are a cultivator. The occupation of the respondents is given below:

Table-4. Occupational distribution of respondents

| Occupation | Number | Percentage |
|------------------|----------|------------|
| Students | 3 | 12% |
| Business | 4 | 16% |
| Cultivator | 7 | 28% |
| Service holder | 5 | 20% |
| Housewives | 4 | 16% |
| Dependent people | 2 | 8% |
| | Total-25 | 100% |

4.6. Data Storage Management and Analysis

All kinds of data collected through IDI, KII and FGD were kept in the diary. Some of the qualitative data were also being stored in our offline storage in Excel data file format. Before the analysis, all the data were properly edited and cleaned. Both Excel and STATA software were used for analyzing the quantitative data. In most of the cases, measures of central tendency (mean/median/ mode) and percentage measure (or proportion) were performed. On the other hand, qualitative analysis was performed following the thematic analysis techniques.

4.7. Qualitative Data Analysis Process

To explore the health seeking behaviour of the inhabitants, interviewed multiple family members including community leaders, government education & health officials etc. The data collected from the qualitative assessment was coded according to the responses of the questions. Initial coding required designating the particular type of response for a question under code and then grouping similar response under the same code. For example, if there was a question on health seeking behaviour, designating a specific code for similar responses such as 'Professional' or 'folk' organized the data for easy review. This allowed recognition of patterns in responses according to the respondent type and location by quantifying the responses of the interview. A codebook was maintained to track the codes designated to the responses. Besides, during the field study, responses were recorded and scripted by the study team. This allowed the research team to validate the data against all indicators generated from the quantitative study. Moreover, the respondents came out with specific and triggering information on the potentials and constraints of the program through those sessions. Many quotations from those interviews and FGDs were incorporated while writing the report in order to consolidate arguments in different chapters.

5. Ethics

Before the start of every interview/discussion every participant (including children, parents, officers and other respondents) was informed about the core purpose of the study and their roles in the data collection. They were asked to provide consent prior to initiating the interview by the interviewer. The investigator read the consent form and if anyone declines to participate, no pressure was put upon their decisions. The consent form included:

- Purpose of the data collection for the study;
- Participant roles in data collection for the study;
- Risks and benefits of participating (if any)
- Voluntary withdrawal from the provision of data for the study; participants will be able to withdraw their consent at any point during the interview
- Terms of confidentiality
- Contact information of researchers involved in the data collection for the study

6. Findings of the Study

The Hakaluki Haor gradually decreasing of size and ecology are changing. The main reason for these changes is simple, namely overutilization of resources, overfishing, too much collecting of fire-wood, grass and reed for fuel also due to heavy rainfall, soil from hill accumulating and not enough emphasis has been given to the maintenance of resources, for example, the replanting of fuel wood plots or maintenance of village ponds. Some of the effects are cumulative.

Although the conservation value of Hakaluki Haor is still very high, there are many indications that the health of the ecosystem is declining. As an Indigenous community, the villagers have also different healthcare sectors. The study people of villagers have different options for health care. These different options of healthcare influenced by religions, beliefs, norms, and cultural values rituals etc. They also mixed up with the Bengali peoples and their culture. The study people when they suffering from physical discomfort or emotional distress, then they try to relieve from these diseases to use a number of ways. Such as advisers' local folk healers doctor etc, the more of these therapeutic options are likely to be available.

6.1. Perceptions About Child Health Care

In Gourokorno village they have not a good opportunity to know about child health care. Because in Haor area there has only one Union Health complex. In union complex there have no good communication and sufficient staff. There has no special corner for natal and child. Lack of education and motivation also a cause of poor ideas about child health care.

Table-5. Nutritional status of children

| Variable | Frequency | Percentage |
|---------------------|-----------|------------|
| Severe malnourish | 8 | 61.1 |
| Moderate malnourish | 3 | 16.7 |
| Nourish | 4 | 22.2 |
| Total | 15 | 100 |

Source: Field data, 2011

Through input height, weight and age it has found that 61.1% of children are severely malnourished in this village. More ever, 16.7% are moderate malnourish and 22.2% are nourished. The reason for severely malnourished was because of less tendency to practice supplementary food.

In the study community, we found different types of healing practices in the community. religious healing practices included the use of verses from Quran, Gita and other religious books those verses providing in a paper locally it calls *Tabij*. Sometimes those verses were recited and blown on the water, oil, face, body or in food item. Spiritual healing system, practitioners claim that they can solve all spiritual problems. They also told that they got it from supernatural power. Besides, religious healing system there are some Non-religious system those are anti-sorcery use of holy books verses. Although religious and non-religious healing practices is existing in the community along with that *Kabiraji*, home medicine also practiced among the community people.

Furthermore, in the study, we have seen these different options which are generally shown by three systems of healthcare. Firstly, when people take treatment without any payment. Secondly, the traditional therapeutic system of the villagers. Thirdly, modern medicine based therapeutic system. In this study Kleinman model (three sectors of healthcare) has been taken an analytic tool. Kleinman model among the villager's community has been applied. Among the villager's community one can identify three overlapping and interconnected sectors of healthcare like the above three systems which are termed by Kleinman, as The popular sector, The folk sector; and The professional sector. Each sector has its way of explaining and treating ill- health, defining who the healer is and who the patient is and specifying how healer and patient should interact with their therapeutic encounter.

6.2. The Popular Sector

Mainly this sector is family member-based treatment. Here old family member especially grandparent play an important role. The popular sector mainly based on indigenous knowledge without considering any formal or informal knowledge and practices of medical professional even traditional healers. Besides, these types of options can avail without payment. Here most ill health is recognized and then treated. It is the real site of primary healthcare in the villagers. In community villagers who are the study people healers of the popular sector are old members of the family, friends, neighbors, relative's parents and grandparents and others. The popular sector is made up of a series of informal and unpaid healing relationships. Even local Pharmacists a good source of health advice for many conditions. In the villager's family the main provider of health care are women, usually mothers or grandmothers who diagnose most common illnesses and treat them with the materials at hand. A woman who has had several pregnancies such as she can give informal advice to a newly pregnant younger woman, telling her what symptoms to expect and how to deal with them.

6.2.1. Synopsis of Case Study-1

Rubel, a boy of 8 years old residing in Gourokorno village. Last few days he is suffering from itching specially on folding parts of body. Though he feels itching throughout the day but it aggravates at night. He noticed the same problem of his friends with whom he usually sits in the school. When he could not bear this irritating problem, he seeks help from her mother. His mother gave him popular sector treatment at first. She has used neempata as well panipora (folk treatment) for cure. But the situation was worsen day by day. At last Rubel's mother goes to a doctor for professional treatment. After few days Rubel became cured. When we asked her, why you didn't go to professional treatment at first she replied that 'Amrar Ma ar Baba to amrarenimpatadi o saraisun' (Our parents usually use nimpata for curing such problem).

Village people use plants, both as medicine and as food. Such as, Arum, Tulsi, Nim, etc (which are one kind of leaves, which is used as vegetables). They also eat honey that is good for healthy health, which they believed. The Villagers also believe that different forms of ill health can range from special players, rituals, confession or fasting or the use of talismans and charms. In the study people also maintain their health by the use of Amulets and religious medallions to ward of 'bad luck' including unexpected illness and to attract 'good luck' and good health. They also take tablets or capsules like 'paracetamol' etc. when they feel feverish or another discomfort without consulting any medical practitioner.

6.3. The Folk Sector

From the respondent I know that at first they take treatment from the popular sector. If in this sector would not work then they go folk or another sector. The study people villagers they also take folk treatment and try to relieve from different diseases. Kabiraj, local faith healers, herbalist, magician, who is also termed as, 'Kabiraj'. This folk sector is found, especially in 'alternative' or 'complementary' medicine in their community. Because of the impact of urbanization, there are different options for health care in their society still now. Among the folk healers, they have different variations in their style and outlook. Other types of Kabiraj give different herbal medicine to remove different illnesses. In the community, one types of Kabiraj have chambers for treatment. Another way of treatment is different religious rituals and beliefs, which are perforated by other types of Kabiraj.

6.3.1. Synopsis of Case Study-2

Farida is a girl of 1.5 years old, hailing from Gourokorno village. She is suffering from fever, cramping abdominal pain and increase frequency of defecation from last few days. Her family usually use Haor water for every purpose of daily life. They also not concern about hygiene habits don't wash hand after using toilet and before taking food. She gradually becomes lethargic; her mother noticed that her eyes become sunken, and she is unable to drink. Her mother started to take oral rehydration saline instead of feeding Farida they believe that if she takes medicine it will cure Farida. But no improvement was seen. Then she takes her to physician. Who has given her some medications and advised to take plenty of fluids? Farida was cured after taking drugs in proper dosage and duration.

Most of the respondents express that once upon a time it was only one health care sector. But now people cannot get success from this sector. So they try to go to the allopathic doctor.

6.4. The Professional Sector

Day by day society changing for the consciousness of the community people now try to go the allopathic doctor for dangerous diseases. In professional villager's sector is widely accepted besides popular and folk healthcare sectors. Most of the - men and women take allopathic treatment or medical treatment. Here, healers are doctors, nurses, midwives (who are paramedical professionals), therapists etc. and healing institutions are public sector or government hospitals, private clinics, (where most of the doctors are practiced for better facilities) etc.

Finally, among the three sectors of healthcare (Popular, folk, professional) the Allopathic treatment is expensive for some people in the study area. So they take traditional, herbal and indigenous treatment. But for some of the diseases like Malaria fever, they take Allopathic medicine. The people villagers take both modern and indigenous treatment. But they cannot identify especially which treatment is effective to recover their diseases and both the treatment exists under some circumstance. Because, under the effect of Medical pluralism, the patients are visiting woor more sectors at the same time.

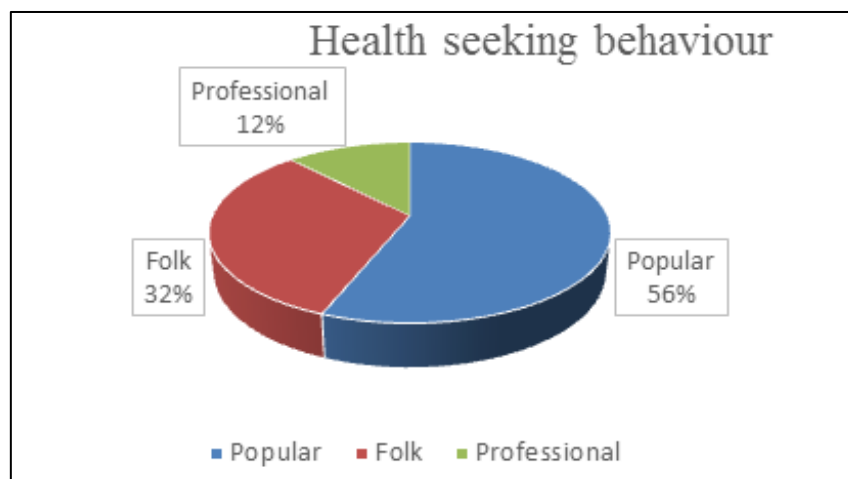
Actually, in the village community we observed three sectors of health care is practices in separate times or in a same time.

6.5. First Taking Health Care Sector

Table-6. First Taking health care sector

| Sector | Number | Percentage |
|--------------|--------|------------|
| Popular | 14 | 56% |
| Folk | 8 | 32% |
| Professional | 3 | 12% |

From the graph we found that the majority persons 56% are taking health care services from the Popular sector and only 12% of inhabitants taking their treatment from the professional sector. On the other hand, 32% of people usually go to traditional agents to relieve their mental and physical discomfort.



7. Limitation and Strengths of the Study

The clearest limitation of this study was the low number of respondents and data gathered from one village. The beauty of the study was that it cannot be claimed that saturation was reached or that the information obtained all of the country in terms of traditional healing practice. Besides, it also provides a concise description of the health care system and seeking of Bangladesh rural context.

8. Conclusion and Recommendations

Being an element of the system, one cannot circumscribe him/herself from being a breeding ground for many biological elements. Physical and ecological functions on human being demand some prophylactic measures to consider, otherwise, end up in illness. So, inevitability is that human beings must pursue the health care system. Lack of availability of modern treatment facilities with endless other problems, Haor people become an easy target for the notorious diseases. Usually, Haor people enjoy the privilege of the facilities provided by popular, folk and professional sector treatment available in their locality.

Family plays a vital role in determining which option they will follow; basically, mothers or older women in the community make the initial diagnosis of the common illness and treat people with the materials in hand. They have also pursued a folk healing system. Here the healers are kobiraj, women healer, traditional birth attendant; herbalist, spiritual healer, magical etc. Besides these also take allopathic treatment and bio-medical treatment. It is been noteworthy that many people go to modern medical treatment also. Most of the people take two or more sectors for treatment at a time.

To obliterate the bleak scenario government, policymakers and organizations concerning the health issues will oblige to take recommendations formulated from the preceding analysis.

Union health complex and satellite clinic can play the central role while building infrastructure for easy communication will emancipate the Haor people for the curse. The non-governmental organization should expand its health services, 'eradicating' superstition and develop educational status and an awareness session on health and nutrition should also get priority.

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