

Health during disaster: sharing experiences with 1998 flood victims

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### Abstract

This was a quick ethnographic exploration to share the experiences of people concerning their health during 1998 flood of Bangladesh. The study area was Kamrangir Char of Lalbag thana in Dhaka city. Indepth interviews with five men and five women and two small group discussions with both the groups were conducted. Sleeplessness over several nights due to various worries caused extreme tiredness among the flood affected people, which hampered their normal daily activities. There was acute scarcity of safe drinking water in the beginning of the flood. However, the Bangladesh army and BRAC made arrangements for fresh drinking water in the locality. Lack of toilets was one of the most embarrassing issues, particularly for women. The incidences and death due to diarrhea was not very high, though there were cases of fever, common cold, pneumonia and various skin diseases. Due to reduction of family income, food intake was less. The stressful situation also made the people psychologically vulnerable. Some irregular mobile medical teams from various NGOs provided medical support. The study reveals that disaster usually gives rise to the common health problems from which people always suffer with the key difference being that the burden of the problem is higher and the defense is lower.

## **Introduction**

Disaster is defined as "*A serious disruption of life, arising with little or no warning, causing or threatening death or serious injury to rendering homeless, such number of persons in excess of those which can be dealt with by the public services operating under normal procedures and calls for the special mobilization and organization of those services.*" ( Kafiluddin:1991)

Disaster may be defined in different ways but only the people affected know what a disaster really is, without necessitating any definition whatsoever. Moreover, no doubt a disaster will be assessed differently by those who are engulfed by it and those who view it from the outside. Natural disasters not only bring immense suffering and misery to millions of people but also trigger a whole set of mechanisms that affect the economic and social life of the people in a variety of ways. Disaster disrupts the culture of normal life and people reconstruct their life socially, economically as well as medically. A new form of temporary culture is developed which we can call 'disaster subculture'. The subculture is influenced by the stressed situation of the disaster itself and also by the preexisting social and economic conditions. The impact of disaster on the physical, mental and social well being of individuals and communities will vary depending on how well they can cope with any sudden changes for the worse. How people cope will be determined by their personal strengths, those of their families, friends and community and on the resources, which they have or receive.

Social science research on natural disaster can help us to understand the human aspects of the problems in order to design an effective program of disaster management. However, there is lack of research on social and behavioral aspects of disaster, particularly in Bangladesh (Alam N.:1994).

Bangladesh is one of the most disaster prone countries of the world. Almost regularly Bangladesh experiences different types of natural disasters. These include flood, famine, cyclone, drought, tidal bore etc. Floods, particularly are a commonplace occurrences in Bangladesh. The flood of 1998 however surpassed all previous records of this country. It was severe both in terms of the amount of water it brought and the length of its duration. The flood began in mid July '98 and continued up to September '98. Millions of people in the country became homeless, houses and dwelling units were destroyed, roads, railways and bridges were massively damaged. Many parts of the capital city, Dhaka also went under water. However, immediate relief and rehabilitation activities were also undertaken by government and NGOs.

In this study we tried to share the experiences of some of the 1998 flood victims focussing mainly on health related issues. This is to mention again that very few studies exist regarding health during disaster. Rahman & Bannish (1993) evaluated the health-related response to large natural disasters using the example of Bangladesh cyclone of 1991. The study found that need assessment was not based on any systematic data gathering from the field. However, there was good coordination of major groups involved in the aid process. Siddique et al (1991) studied the illness patterns and cause of death during the 1988 flood of Bangladesh. They found that Diarrhea was the most common illness followed by respiratory tract infection. And Durkin et al (1993) studied the effect of 1988 Bangladesh flood on child behavior. The authors hypothesized that the prevalence of aggression, extreme shyness and enuresis would be significantly higher after the flood than before.

## **Method**

This was a quick ethnographic exploration among the flood victims of 1998. The study area was Kamrangir char under Lalbagh thana of Dhaka city, one of the most severely affected area in the city. The inhabitants of this area are mostly from the lower income group. The study was carried out during the last week of September '98, when the floodwaters had began to recede. The researcher traveled the area in a boat, observed the conditions and talked with the people. Water has receded from the houses, but the roads and courtyards were still inundated. People were returning to their normal life. Those who had left their houses for flood shelter had just returned. The researcher talked with a cross section of people in the flood-affected area. Out of them, ten flood victims were selected for in-depth interviews, five men and five women. Among the men three were rickshaw pullers, one was a baby taxi driver and one a day laborer. Three out of the five women respondents were BRAC members engaged in small scale business. The remaining two were house wives. All the respondents migrated from different rural parts of Bangladesh, one to twelve years back. The informal and conversational form of interviews were conducted in the respondents house, lasting about an hour. Two small group discussions were also conducted, one with men and the other with women. All the interviews were tape-recorded and transcribed later. While expressing their experiences during the flood, respondents usually included all the stories regarding their survival, economic and social losses. However, according to the objective of the study we focused our interest on the health-related experiences of the respondents. These include general physical well being, water, sanitation, illnesses, food and nutrition and also psychological well being.

### Sleepless nights

While discussing with the respondents it was impossible to ignore their red, shrunken and extremely tired eyes. This was more prominent among women. During discussions most of them said that they had barely slept in the last two months. Some of the respondents spent the whole period of the flood in a *macha* (A bamboo made platform), built above the water inside their house, some on their tin roof and some took refuge temporarily in the nearby flood shelter. Various worries and disturbances kept most of them awake in the nights. The *machas* were very small and there was little room for the whole family, yet they struggled to accommodate all the members. Usually, four to five people slept in one *macha*. One great worry of the mothers was that the children might fall off the *macha*.

One woman said, "*I stayed awake on the macha night after night. Sometimes I slept just for an hour but got up again. I could not sleep because I always worried about my little boy falling off the macha and drowning.*"

One day the little son of this woman really fell off the macha, when they were all sleeping. The father of the son, however, saved him immediately. After this incidence the whole family moved to a flood shelter. One woman gave birth to her second daughter on the macha and spent her whole postnatal period there. It was also extremely difficult for her to sleep with the newborn baby in such a tiny place.

Some were worried about the safety of their young daughters. As one woman mentioned, "*We remained on the tin roof of our house. We cooked there, slept there, and spent the entire period of flood on that roof. I could not sleep in the night. I was worried about my two young daughters. It was dark all around during the night as the electricity supply was cut off. The young boys used to hang around with their boats and make dirty comments. I lied awake in the*

*darkness thinking about the danger that might occur to my daughters. Finally we sent them to my brother's house, which was out of the flood affected area."*

Some remained awake in the night to guard against thieves. One man said, *"I remained awake almost every night. There was darkness all around as there was no electricity. We used to hear rumors about looting in different parts of the city. I therefore kept watch on all the directions throughout the night. I only slept when I could not stay awake anymore."*

The situation was worse for those who went to the flood shelters. In the flood shelters, though the above mentioned worries were absent, the situation itself was not favorable for normal sleep. According to one man, *"There were fifteen to twenty families in one small room. It was very crowded. The children were crying all around, some were quarreling, no privacy. I could not sleep at all."*

Sleepless nights, therefore was a common experience of most of the flood victims, which caused deterioration in their general well being. This particular influence of the flood on people's physiology often remains unnoticed by outsiders.

### **Water water everywhere, not a drop to drink**

During the flood, the whole country was under water but getting fresh drinking water was one of the most difficult tasks. In the study area there was no water supply from WASA, people used tubewell water but all the tubewells of the area were drowned during the flood. People had great difficulty in getting fresh water.

One woman said, *"When all the tubewells drowned, we had no choice but to use flood water. The water was filthy and smelt awful. I used alum to purify it. Sometimes I also boiled it."*

However, this situation did not last long. Within a week two initiatives had

been taken in that area. One by the Bangladesh Army and the other by Brac. Bangladesh army established a mobile fresh water tank in the nearby dry area and Brac installed a new tubewell in the locality above the water level. This solved the water problem to a great extent. As one women mentioned, "*Hundreds of people took water from the tubewell given by Brac. It saved our lives. From morning till evening hundreds of people were around the tubewell, like ants around a piece of sugar.*"

For some it was still a problem to fetch water. Some lived quite far from the Brac installed tubewell or the army mobile water tank. They had to take boats to reach these sources of pure water. But the boats usually did not want to take people who wanted to hire it for the purpose of fetching water. because usually there was a long queue near the tubewell or water tank and the boat had to wait for a long time. Many of them therefore had to swim to the tubewell.

One woman said. "*Everyday my youngest daughter swam to the tubewell with a dekchi (cooking pot) and waited in the chest deep water for a long time. After a great struggle she managed to collect one dekchi of water which I used for the whole day.*"

This one pot of water was a precious asset for them and they had to use it very carefully. They used it for cooking and drinking. But that small amount was never adequate for the needs of the whole family and they could not always drink when they were thirsty. The woman continued, "*I could live without food but how is it possible to live without water? Sometimes the thirst was unbearable.*"

Many diseases were also associated with contaminated water and water shortage. Without adequate water, people could not wash themselves properly, nor the cloths, utensils and food could not be prepared adequately and hygienically.

The restrictions on cleanliness, resulted in various parasitic, fungal and skin diseases and eye infections.

### Toilet on the tree

The most annoying and embarrassing issue for the people was the lack of latrines. Most of the people living in that area had pit latrines and those had been flooded or washed away. People had to look for alternative ways.

One man said, *"We tied pieces of cloths around the branches of a big mango tree and made a temporary toilet on the top of the tree. We would sit on the branch of the tree while doing it. It was quite difficult to keep balance."*

He said several families used that toilet on the tree. In the morning one would see the people waiting on the branches of the tree while someone else used it. In a normal situation it might be a funny scene but that was not a time to laugh. Another man who has recently migrated from his village said, *"In the village we would take a vela (A boat made from banana tree) and go to an adjacent bush for defecation during the flood but here in city it is crowded everywhere and everything is open."*

The problem of latrines was most embarrassing for women. They usually answered the 'natural call' only in the nights, so others would not see.

According to one woman, *"I always tried to control the natural call until it was dark."* Some women even defecated from the macha inside their house when the husband and children were out.

After defecating they used to create waves in the water with their hand or something else so that the dirt would go away. But that usually did not solve the problem. As one woman mentioned, *"In the morning after getting up someday I would see the piece of stool floating around my macha."*

This reflects how the flood worsened the hygienic and environmental conditions of the locality and how people had to extend their limits of physiological tolerance.

### **Diarrhea, fever, cough**

There were incidences of diarrhea particularly among the children during flood. This mainly happened during the period when all the tubewells drowned and there was an acute scarcity of safe drinking water.

One woman said, *"For about a week we could not get clean water from any source. I put alum in the floodwater and used it but children sometimes drank floodwater, which was contaminated. This is how they got diarrhea."*

Some children got diarrhea after taking chapati and khichuri provided by the relief team. Some complained that foods given by the Government and NGO relief teams were rotten.

According to one woman, *"My son became ill after eating the chapati given by the Brac relief team. Probably they made these chapatis the night before and when they came to us the next afternoon, the chapatis were already rotten. My son started having loose motion after eating those chapatis."*

However, one of the pleasant surprises of the recent flood was that the incidences and the deaths due to diarrhea were not as high as one would expect in a disaster like this. Two factors might have influenced this. First, the message of clean water had been widely spread among the flood-affected people by government and NGO workers and also through different media. Second, there was a good supply of ORS made available by various public and private agencies.

According to one woman, *"People came by boat near our houses and supplied saline. I don't know whether they were from the government or NGOs. I gave that saline when my child had diarrhea."*

Apart from diarrhea the most common illnesses that people suffered from during the flood were fever, cough and the common cold. There were some cases of pneumonia as well. Both children and adults suffered from fever, cough and common cold, while women suffered most.

According to one man, "*There were no places for the children to play, how long could they sit on the macha? They therefore spent most of the time in the water, just playing. As a result they developed fever and cough.*"

One woman was still having fever when we interviewed her. She said, "*Many times I had to get down from the macha and walk in chest deep water. My sharee remained wet for long time. I stayed day after day surrounded by water. That's why I got fever.*"

In addition to this, most of the respondents complained about developing sores on their feet and various skin diseases from walking in the filthy water. One man mentioned that his peptic ulcer, from which he has been suffering, was aggravated during flood because he was always in anxiety and could not have food regularly.

However, the problem for all of them was the inability to avail treatment for these diseases. Usually they took treatment from nearby pharmacies or from general practitioners. But all the pharmacies were under water and the chambers of the private practitioners were also closed. This disrupted their normal procedure of health care seeking. Some relief teams supplied ORS but not other medicines. Some NGOs, including Brac, sent their mobile medical teams to the affected areas and the teams supplied different medicines. But this was not a regular service and they did not always get medicines when they were required. There was a lack of alternative therapeutic options as well. As one woman said, "*This is a city. If I were in a village I could give my son some herbs if he had cough. Here there is*

*nothing except bricks. Here you cannot find any herb not any herbalist to consult."*

There was, however, a Brac medical team that was stationed in a flood relief center, which supplied medicines to many people. But that was quite far from some of the affected households. As a result, it was very difficult for them to reach the medical team across the water.

### **No fish, no meat**

Food consumption of the people was severely affected during flood. The respondents are all from very low-income groups whose flow of income was disrupted due to the flood. There was no work for the day laborer. The income of the rickshaw puller and taxi driver was reduced to a great extent, as people's mobility was reduced. The women who took loans from Brac for small business could not run their businesses. In general all income-generating activities were halted. This affected the day to day living of the people and the respondents, poor slum dwellers, could not buy the food they required. The respondents mentioned that they could not provide proper meals for their families. They starved many days or took small meals. Sometimes they just depended on the chapatis or chicory given by various relief teams.

A man who is a rickshaw puller said, *"At the end of the day, after giving the deposit to the owner of the rickshaw, I hardly had any money in my hand. It was impossible to buy food for the whole family. Still I bought something at least to feed my children."*

The food they took was also of lower caloric value. The man added, *"Many days we could not even take rice, we only took kochu (Kind of root) or maybe just potato. I never could think of buying fish or meat during the last two months."*

This long term low intake of low calorie foods has definitely influenced the

nutritional condition of the people affected by the flood. The affect of flood on people's nutrition requires further exploration.

### **End of the world?**

The flood also affected people's psychology. Living in a macha surrounded by water day after day, sleeplessness, starvation, illness and insecurity resulted in a severely stressful condition for flood affected people. They lost hope and inspiration for life. The following are some comments made by the respondents indicate their desperation.

*"In the night there was darkness all around as there was no electricity. I would lie awake under the sky on my tin roof. There was water in all directions. It was scary. I would think maybe after tomorrow the water will start receding. But the next morning I would find myself once more in the water. I felt so helpless. sometimes I thought the water would never recede. that we will end up our whole lives here in the water."*(A rickshaw puller)

*"When the water did not recede even after two months I was very scared. I thought that maybe this is the end of the world. One day I saw a dead body floating on the water. I thought maybe we all will die like this one after another."*  
(A house wife)

*"Sitting on my macha. I frequently thought why isn't Allah taking us away from this unbearable hardship."* (A women. Brac member)

All of these comments reflect the impact of flood on people's psychology. However, the psychological effect of disaster will depend on the external loss, the individual characteristic of the victim and also on the social and psychological support.

## **Conclusion**

Floods are a commonplace occurrence in Bangladesh. However, the flood of 1998 surpassed all previous records particularly in terms of its long duration. Like any other disaster, the flood disrupted the normal functioning of life. For flood affected peoples there were social, economical and physical implications. In this study we tried to share the experiences of the people concerning their health during the flood. This was a small scale, exploratory study of short duration. We had informal conversations and small group discussions with the flood victims in a poor neighborhood of Dhaka.

People, in general, are more concerned about their economic losses during the flood but they all recognized various effects of the disaster on their health as well. The flood disrupted the normal way of life. They did not have proper places to sleep. The whole family had to stay either on a small macha above the water level, on the roof of the house or had to go to a flood shelter. Worries about their children falling off the macha, about the insecurity of their young daughters or about the thieves in the darkness kept them awake for most of the nights. Sleeplessness over several nights caused extreme tiredness among them, which hampered their normal daily activities. There was acute scarcity of safe drinking water for some time as all the tubewells were drowned. People used the floodwater for household purposes during that period though they either boiled it or put alum in it. However, the Bangladesh army established a mobile fresh water tank and Brac installed a tubewell within a week. It solved the fresh water problem to a great extent, though fetching the water was a great hassle for the people.

One of the most embarrassing issues was the lack of latrines. Most toilets of the locality had washed away, so people looked for alternative ways. They even built toilets on the top of trees. This was particularly difficult for women, who had

to wait till dark to answer the call of the nature. Surprisingly the incidences and death due to diarrhea were not very high as usually happens in a disastrous situation. The wide spread messages regarding clean water by various agencies and also the supply of ORS probably are responsible for this positive result. However, there were incidences of fever, common cold and cough. Both children and adults had to spend a lot of time in the water, which probably led to these diseases. People also developed sores on their feet and various skin diseases. The peptic ulcer of one respondent was aggravated during flood due to anxiety and starvation. Normal health care seeking practices were disrupted as all the pharmacies and doctor's chambers were closed. Some mobile medical teams of various NGOs and a fixed medical team of Brac provided medical support. It was also revealed that due to the reduction of family income during the flood, food intake of the family was reduced, which has had an impact on the nutritional condition of the people. The stressful situation also made them psychologically vulnerable. They sometimes lost hope for life and became fatalistic.

Even though each disaster is unique in nature, scope and timing, the problems created are basically similar. Disaster does not give rise to new or uncommon diseases. People suffer and die in the wake of most disasters from exactly the same disease that they have always suffered and died from. The only difference is that the burden of disease is up and the defenses are down. What was already bad, simply become worse. In all cases of disaster the most effective form of mitigation remains preparedness and where possible, prevention. We need to help decrease people's vulnerability and strengthen their capacity to respond to events that undermine their physical, mental and social wellbeing.

I conclude with the following words from the 'WHO report: Health in the International Decade for Natural Disaster' (1991):

“ Although we are still tied to the movements of the winds and tides and of the earth, we tend to forget or dismiss, their power. A distressing ‘collective amnesia’ often sits in during the absence of disaster, as people turn their backs on quit volcanoes or tranquil seas and return to their daily tasks. The lessons taught by the storm to one generation of coastal residents are forgotten by the next. Such forgetfulness can be fatal. The history of disaster awareness and preparedness, unfortunately is short. We must have the courage to remember and the conviction to act immediately.”

