



Assessment Of Psycho-Social Impact Of Natural Disaster: A Case-Study Of Glacier Outburst In Chamoli, Uttarakhand

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Abstract

Natural Disasters are mostly unpredictable phenomena, which leads victims in a state of shock. Studies have suggested that disasters and mental health are related to a large extent. It causes a high emotional disturbance, and has long-term consequences. Depending on the severity of impact and extent of loss at individual's/community level it can affect in many ways such as feeling a strong sense of grief, panic, anxiety, depression, and low self-esteem, fear of uncertainty, sadness, and poor mental health. Thus, the aim of this study is to understand the linkage between natural disaster and its psycho-social impact on wellbeing of the affected people. To fulfill this objective, investigators are committed to make a qualitative attempt to address the current psycho-social issues that emerge just after the disaster which took place in Chamoli, Uttarakhand on 07 Feb 2021. In this effort, investigators tried to account for the various psycho-social demands of the majorly affected people in the region. For the same, the research team of the University visited Raini village (disaster site) and other most affected villages and observed the post-disaster social and psychological problems. By this effort, we have tried to account for various psycho-social factors, (resilience, social support, psychological health) and other coping strategies that amplified the individual's capacity while encountering such negative situations. Disaster places affected populations are in great danger every year in Uttarakhand and always have a negative impact. The psychological effects of the disaster are more drastic among children, women, and the dependent elderly population.

Keywords: Resilience, Social Support, Coping Strategies, Mental Health, Governance.

Introduction:

Indian Himalayan region is too fragile like human emotions. It has so many stories and secrets of past and present to tell. India has witnessed high numbers of horrifying/distractive natural disasters in last two and half decades. On 7 Feb 2021, in the Uttarakhand Himalayan region a large piece of Nanda Devi glacier broke off and fell into the

river Rishi Ganga, triggering an avalanche and glacial lake outburst flood (GLOF). The surging waters washed away many homes, damaged two major dams along with a power project plant, cut off 9 villages, and snapped crucial road links and bridges that connect far-flung areas in the Himalayan region. Around 50 people lost their lives and 350 are still missing. But this is not something new, in the last one decade; Uttarakhand has been hit by major natural disasters more than once leaving behind massive trails of destruction. Home is a place that provides security and safety for people. But, when unavoidable situations caused by natural disasters damage homes, property, and other valuables, victims feel insecure. Various factors lead to the victim's psychological trauma, such as separation from family, death of loved ones, socioeconomic loss, environmental loss and lack of mental preparation for disaster, Cut off family ties, lack of social support and negative coping skills. This study was carried to assess the various psycho-social demands of the majorly affected people in the region.

Though Uttarakhand has been hit by many natural disasters in the last two decades; but this time the people of Uttarakhand have eye-witnessed to the storm like never before. A massive trail of destruction made them speechless and left many questions for the mankind. Natural disasters are and will remain threats to Uttarakhand. Furthermore, climate-related hazards due to climate change, is expected to lead to an increase in frequency and severity in near future as glaciers are melting like never before. Thus, the purpose of this study is to understand the linkages between disaster and its impact on the psycho-social wellbeing of the affected people.

Methodology:

This study is exploratory in nature and based on primary data derived through qualitative and quantitative methods of data collection. For the purpose of data collation, Investigators have performed a series of semi-structured interviews on local people and administered the most relevant questionnaires to account for emotional and cognitive disturbance. This methodology and post-disaster psychosocial impact assessment tools describe a systematic and rigorous qualitative methodology that can be used to capture post-disaster social impacts on all subject areas. The site selection method applies certain quantitative techniques to qualitative research. Psychological assessment after a disaster does not do this: it is difficult to understand psychological phenomena from the point of view of those most affected by predominantly quantitative methods. However, it tries to ensure that the sample is as representative as possible and includes a number of families not affected by the disaster. This allows researchers to be confident that the emerging findings are not unique to a particular (outlier) community, and although they cannot be generalized by statistical inference, they are sufficient strong for the purposes of policy recommendations, especially when triangles with others are available. quantitative data from post-disaster assessments and other surveys.

Field Setting:

State	Uttarakhand
District	Chamoli
Block	Joshimath
Villages	Raini Palli, Tapovan, Pang and Morinda

1. Preparation of semi-structured interview schedule and development of questionnaires/research tools.

A semi-structured interview schedule was prepared for psycho-social impact assessment. Most of the questions were open-ended question and demands probing in between. Further, questionnaires of social support, satisfaction with life and depression, and question related with mental health were prepared with the help of field experts. A demographic data sheet was also prepared to register their basic information such as age, occupation, number of dependent in family, number of children, social status, insurance and contact details etc.

2. Identification of a Field Assistant:

As the site was completely new for the researchers, it was not easy for them to access the people and interview them. Even to hold icebreaking session, researchers required help of an insider. After a marathon effort, investigators were able to find a community person in Raini village name VIKKY. Vikky is a young boy, resident of the Raini village and well-known among the community members. He worked as a facilitator, mediator and translator as he was well versed with the local language and language of the investigators. He helped us a lot to identify the families who are most affected by the disaster.

3. Data collection:

Participant Observations, Semi-Structured Interviews, Questionnaires and other demographic details. A total of 19 people from the community were contacted for an in-depth interview and a total of 6 questionnaires were administered. During the interview, the detailed demographic information was obtained and voice recording of the interview was also done with consent.

Respondent from Disaster site	Raini Palli	Tapovan	Total
Male	4	2	6
Female	2	4	6
Children	2	2	4
NDRF/SDRF	2	1	3
Total	12	7	19

Before beginning the interview, a formal rapport was developed and informed consent was taken from the participants and interview of 19 individuals (4 children, 6 adults, and 9 old age person from the 2 villages) from the same community were taken. During the visit, it was suggested by the liaising person that due to psycho-social reasons and the current problem, accessibility to the individuals would not be as easy as everyone is in deep trauma. Therefore, this period was utilized for field observation, preparing notes, and collecting images. Further data would be analyzed using Ethnographic Content Analysis that may be divided into three major categories: Children, Adults and Old-Age people.

Observations:

On 23rd February 2021, the investigators began their journey to Raini village of Joshimath Block (which is about 350-kilo meters from Dehradun city) after allotment of the project and completing other necessary paperwork. Raini village is surrounded by huge mountains, deep forest and it also consists of a wildlife century as well. During the field visit it was observed that due to the collapse of bridges it was not just the disconnectedness with other villages and the mainland, i.e. access to the market or major towns and cities. The collapse of bridges has also led to disconnectedness with the near and dear ones. Villagers on one side were unable to share their grief and emotions with their loved ones living on another side. Though, officials of SDRF, NDRF, Army, and Department of Disaster Management of the State was working day and night on the ground to establish connectivity among the people and villages. During the observation, the key interactions between the members of the community are also recorded. Though it is difficult to conclude about the situation in just one visit so far one can say that this disaster is one of its kind which has compelled mankind to review its actions. This disaster has not only caused human, infrastructure, and economic loss but also emotional loss.

The field observation of the research participants (Approx 24 Hours spread into 03 days) has been carried out in accordance with the guidelines of the classical participant observation method that involved children adults and old age in the village setting with an objective to develop an indigenous perspective on disaster issues of the Raini village and Tapovan. Investigators particularly focused on the psychological problems of people, facial expressions of children in the home, and in common places, nature of potential emotional problems in children and old age people in their own community setting.

A potential disaster affects all of us in different ways and because they will remain frequent occurrences especially in The Himalayas in Uttrakhand, it is important to better understand their psychological effects on most affected communities. It becomes crucial to investigate under what circumstances disasters have occurred and what could be the possible psychological outcome would appear. Psychological and Social effects of course can take very different forms in terms of impact but generally destroy the quality of life and

wellbeing of the families. People may be affected directly, through the damaged property, or as a threat to their lives or people close to them. Disasters may also affect people by changing the way they think. They are no more than the previous one. The entire cognitive process got disrupted results in many psychological disorders such as PTSD. Such traumatic events may have an impact on how citizens think and feel about their neighbors who assisted them during a Disaster.

Major Findings:

There are many stories about the ups and downs of the last three days long journey. As it was highly disturbing, people were waiting for their loved ones in anticipation but now eyes are dry and faces are blue. Foremost, team would like to thank the participants who gave their valuable time in such a crucial situation. Around 400 people lost their lives but only 50 of the bodies were reclaimed after marathon efforts done by central and state government forces. 350 persons are still missing. This was something new for the local people and left them in huge trauma. This situation gets worse when there are no such psychological supports from any side. As one of the community members reported during the interview that “we are not hungry, we don’t want food from you. We just want the bodies of our loved ones so that we can complete the last rites, so the soul of our dear ones can rest in peace forever”. By saying such a meaningful and emotional sentence, the eyes got started raining. It was completely difficult situation for a researcher to conduct an interview. It was the beautiful Himalayan culture, people are humble and supportive. They have a strong belief in destiny and have a strong spiritual orientation and commitment.

Psycho-Social Impact:

- 1. Psychological Co-Morbidity:** Research conducted over a period of three days has concluded that disasters can cause a wide range of negative psychological responses. During observation and interview we have found psychophysiological symptoms such as fatigue, appetite changes, restlessness, headache, gastrointestinal disturbances and sensitivities, as well as cognitive signs such as speech, confusion, impaired concentration, and inattention. Psychological effects include emotional cues such as anxiety, depression, and grief were prominent outcomes are recorded after the interview.
- 2. Behavioral Effect:** Disaster had huge impact of behavior. One can easily find behavioral effects (unsound sleep and ritualistic) in behavior among the villagers. In most cases, the observed effects are meek and brief (may be due to insufficient data). The respondents have informed that many of them are unable to sleep for nights and going and few of them are going through auditory hallucination as well. As the region comes under an ecologically sensitive zone, the people of the region are scared and worried about their lives and livelihood.

3. **Requirement of Mental Rehabilitation:** Experts have also found that few disaster victims require psychiatric diagnosis and well as crisis counseling from a mental health professional. However, there are group of peoples requiring extraordinary consideration and active rehabilitation and intervention. These include children, old age people and families of those who have died in the tragedy.
4. Emergency workers both state and central (NDRF/SDRF/ITBT/ARMY) also need attention because they often work for more than a week without rest; have witnessed horrific sights, emotional issues, and physical weakness. However, data indicate that there is little evidence of emergency workers' demands of directive therapies either. The negative psychological impacts described above seem to disrupt the social functioning, quality of life, mental health of the victim families. Instead, the majority of disaster victims engage in problem-focused **response** activities to save their own lives and those of their loved ones.
5. **Pro-Social Behaviour:** Further, preliminary data also indicate that there is an increased incidence of pro-social behaviors such as donating material aid, food, increasing helping hands, and a decreased incidence of antisocial behaviors such as social crime, use of alcohol, and other drugs. In rare cases, people even adopt altruistic behaviors that jeopardize their own identity and their lives in order to save the life of a member of their community.
6. **Highly Negative Emotions:** The language used by the participants in the setting was loaded with highly negative emotions. The interactive patterns were so meaningful and full of deep sorrow across a setting. The other psychological symptoms such as helplessness, loss of social security were also found.
7. **Need to Review Rehabilitation Policy of the State:** The villagers are looking forward to the state for the psychological rehabilitation policy and active interventions. Expectations are that the state shall provide them with land and built houses for these people.
8. **Lack of Infrastructural Capacity:** Lack of mental Health Infrastructure and general health bodies seems lacking at the disaster site. It was also observed and reiterated by the people that there is a lack of proper transport infrastructure in the region to avail general and specific health care benefits. No access to psychologists, mental health professionals in the nearby area as reported by the families. To consult, one has to travel all the way to Srinagar (150Kms) or Dehradun (300Kms) from their village. Respondents informed that even the medical practitioners at Primary Health Centre refer their cases to the District Hospitals or Dehradun.

Common psychological outcomes have been identified in affected people:

I. Prevalence PTSS

- II. Anxiety and Depression
- III. Insomnia and Restlessness
- IV. Death Anxiety
- V. Emotional Distress
- VI. Auditory Hallucination
- VII. Grief
- VIII. Increased Spiritual Commitment
- IX. Work related problems
- X. Loss of Livelihood

Recommendations:

However, The social, emotional, cognitive, and experiential impacts of disasters are generally not expected to be significant, since we only interviewed a small number of people. So it is too early to say or level an individual under any psychological disorder. On the basis of the available data, it will be an early call to draw a conclusion but we have tried every possible method (qualitative and quantitative, and ethnographic observation) to figure out the maximum inference from the interview and field observations.

Conclusion:

Every disaster, natural or man-made, results in death and injury, damage and devastation, these are evident all the time. What cannot be seen is the emotional pain, trauma and stress of survivors, who have lost loved ones or suffered property and property damage. Oftentimes, these invisible effects of natural disasters go unnoticed by policymakers until psychiatric patients congregate in hospitals or suicide rates rise. Often such suffering persists for many years after the physical damage has been restored and rebuilt. Early recognition and guidance could have prevented much of such prolonged anguish. Although belatedly, the need and importance of psychosocial support immediately after a disaster has been recognized. Often the number of people who need such advice far exceeds the capacity of existing mental health professionals. This has encouraged innovative research and practice in community-based psychosocial counseling, through which simple counseling tools and techniques can be taught to community and community workers. other at the local level. For such training to be carried out in a scientific and systematic manner, a significant number of trainers must be trained in counseling concepts, methods and techniques. We also recognize that mental health services/response during a disaster are important to those affected. Identify and treat overt psychological signs/symptoms associated with distress or mental disorders such as PTSD in disaster-affected individuals. In addition, interventions should be aimed at promoting mental health and preventing psychological symptoms in disaster-affected families and should be included in services by governmental and non-governmental organizations. disaster mental health services. Psychosocial and mental health

support services should be considered as a continuum of responses at the disaster site. While psychosocial support will include general interventions related to the broader issues of relief work. The strength of any disaster relief effort depends on how responsive recovery programs are to the needs and motivations of affected families. The method we use to assess the psychosocial impact of a disaster helps to identify and quantify the extent of damage and loss caused by a disaster. Using such qualitative research methods will allow assessment teams to supplement information about the resources needed to rebuild families and replace broken emotions, with an understanding of the factors Psychosocial factors prevent people from returning to their daily lives.

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