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PSYCHO - IMPINGE ON PEOPLE OF EARTH QUAKE AREA OF NEPAL

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ABSTRACT
This paper is deliberated the psycho study in earthquake affected area in Nepal. Earthquake is one of the fatal natural disasters we have regularly experienced. Nepal and its adjacent areas are vulnerable to very high magnitude of earthquake. On the basis of investigation it has been found that recent earthquakes had destructed many human lives and their properties in Nepal and north India. The earthquake was considered to be the main cause for avalanches, landslides, slumps, many creaks and fissures in the adjacent area of Nepal. The study endeavors to examine the nature, extent, causes and consequences of the tremor of quakes.

Introduction

Over the past few decades, the incidence and magnitude of natural disasters including earthquakes has grown significantly, resulting in ample economic damages and affecting or killing millions of people. Globally, more than one million earthquakes occur each year globally, an average of about two every minute. There is no doubt that we have achieved a remarkable scientific progress in earthquake engineering during the past several years. However, achieving a high standard of health and safety against earthquakes is still a challenge for both developing and developed countries(A. K. Ghosh, S. Raychaudhuri,2007).

Earthquake is a violent tremor in the earth crust, sending out a series of shock and aftershock waves (L waves) in all direction from its focus. Earthquakes constitute one of the most terrible natural hazards which often turn into disaster causing extensive devastation and loss of human lives and their properties. A deadly earthquake shook Nepal and sent tremors through Indian subcontinent(Billing, P., & Madengruber, U. (2005) CAID. (2015).

On April 25, 2015, Nepal was struck by a 7.8 magnitude earthquake which, according to Government of Nepal, killed over 6000 people (as of writing of this piece). For the purpose of early planning, United Nations has estimated that 8 million people (which is about one third of the country's total population) in 39 districts have been affected including 1.4 million in need of food. We still do not have detailed information about socio-economic and environmental impact caused by the earthquake. Many government and private health care centers of the earthquake-affected areas such as Kathmandu, Kavrepalanchowk, Gorkha, Dhading, Sindhupalchock, Lamjung are affected with health workers among the victims. Indeed, health consequences to population after earthquake are very complex. There are evidences that massive earthquakes have the ability to cause casualty rates of 1% to 8% amongst the endangered population(Butterfield, A. M. (2009).

The number of casualties caused by an earthquake, however, is generally depend on its magnitude, its proximity to highly populated areas, soil type, time of the earthquake, degree of disaster preparedness implemented at the earthquake affected area. Although there are a large number of factors associated with the impact of earthquakes on population health, key factors associated with fatal injuries in earthquakes is houses and commercial building collapse. In most cases, deaths resulting from major earthquakes can be instantaneous (due to severe crushing injuries to the head or chest, external or internal hemorrhage) or delayed (occurs within days and can be due to dust inhalation of collapsed building, dehydration, hypothermia, hyperthermia, crush syndrome, wound infections, or postoperative sepsis).Although it is not possible to predict with accuracy which diseases will occur following certain types of disasters including earthquakes, generally, diseases can be distinguished as either water-borne, air-borne/droplet or vector-borne, and contamination from wounded injuries. The most documented and commonly occurring diseases are water-borne diseases, i.e. diarrhea diseases. In our current context, earthquake affected individuals are staying in overcrowded areas/camps. Thus, there is a probability of transmission of respiratory diseases like typhoid, tuberculosis and swine flu. The number of tuberculosis patient is significant in Nepal and recently number of people has died from swine flu signaling its present in Nepal. Use of face mask is imperative among health professionals and affected individuals (Gurung, C. B. (2015)).
Earthquake effect on human health is not purely of a physical nature. There are reports of psychological and emotional effect of earthquakes. These effects tend to range from very minor emotional distress to clinically diagnosable psychological pathology. Some may even suffer from more severe forms of distress, especially anxiety and depression depending on their prior psychological condition and the impact of the earthquake on their immediate families or close friends.

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This is very common and understandable that many people may experience distress, including anxiety, distressing memories, sleep disturbance, nightmares, and restlessness in the initial weeks after an earthquake. However, the psychological effects on people which are caused by economic damage (e.g. damages of houses, loss of jobs) by earthquakes can last for years as people become unable to continue earning enough income and communities cannot rebuild. In this sense, the psychological effects of an earthquake can be felt for years afterwards. As we are in the social network era, we have observed that many individuals and media are posting or sharing devastating and very sensitive photos/videos of earthquake affected individuals in social network sites such as Facebook or Twitter. Considering the large number of internet and social network site users, its impacts, especially to the earthquakes victims may be very serious. Public health services should be able to provide evidence-based programs that can promote recovery.

We have often witnessed that earthquakes create a massive, unmet need for medical care (both basic and complex). Damages on road/air might interrupt medical chain supplies in some affected areas. Although reports of death and injury ratios vary, many previous studies have estimated it to be approximately 1: 3. In large earthquakes, damages to health facilities could be massive and can lead to an interruption in basic health care services. This not only hampers high priority services during emergencies, but also creates overload of patient flow and increase waiting times in other fully functional health services centres. In such situation, individuals who have underlying medical conditions (e.g. suffering from chronic diseases, such as diabetes and heart conditions) could be at higher death risk as crucial medicines and care may be unavailable for them when needed.In many earthquake-affected areas in Nepal, we observed that our health facilities are ill-prepared to respond to disaster. There seems to be very weak or virtually no emergency plan in hospitals. Reports are emerging that patients, including those in intensive care unit, were left in open ground without health care staffs for hours on the day of main earthquake. According to the media reports, maternity hospital of Thapathali in Kathmandu and District Hospital of Rasuwa suffered damage in their buildings. It can be easily predicted that other hospitals, primary health centers and mainly health posts at villages might have heavily suffered. In this situation, there may also be a practice that earthquake-related injuries are treated outside the health care service centers. This might invite further complication to the service users. Media should help promote message around available health facilities in the affected area so that services users can access health services through a skilled health care practitioner. Finally, strong public health system is vital to reduce mortality and morbidity during and after earthquakes and other disaster events. Public health system should be prepared to tackle any future disaster. Infrastructure of health facilities should be highly earthquake resistance. In most developed countries, hospital buildings can withstand earthquake of 8 Richter scale or more. Primarily, training to health staffs on disaster handling, safety of the major equipment, strategy on patient evacuation during disaster, stocks of the medicines should be already in place. The primary role of population health in earthquake is to provide emergency medical services and help control potential communicable infections outbreak after the earthquakes. Provision of adequate food, water, and shelter should especially help people in vulnerable age groups and those with pre-existing diseases. In this critical situation, our focus should be in re-establishing and improving the delivery of health care in the affected areas. Aid agencies/workers should closely work with Government of Nepal to arrange medical, and further training of healthcare workers on appropriate case management. Public health responders should set up a rapid disease risk assessment in order to identify disaster impacts and health needs. We are very optimistic that we would be able to tackle this critical situation. Together we can re-built our Nepal soon. Earthquake of 1987 killed 721 people. On April 25, 2015, 7.8 Rt. Scale earthquake hit with epicenter at Gorkha. 9000 folks died, according to PDN report created by National Planning Commission. On the basis of investigation it has been found that the earthquake and its effects are major problem in study area. In study area, the region of convergence of Indian plate and Eurasian plate is more vulnerable to earthquakes. The problem under study is to assess the nature of earthquakes and to determine specifically the extent of this type of disaster, in details through data generated from Indian Meteorological Department (IMD) and Geological Survey of India. The other main problem is to construct unscientific and non-seismically engineered multi storied buildings which had easily collapsed by the tremor, disrupting civic life in Nepal. This research work will deal particularly with one of the current issues of consequence of earthquakes as well as different problem of human beings related with massive damages. The havoc caused by an earthquake a year back hasn't been properly sized up yet. Victims are still lying under the temporary shades. The fears of the earthquake tremors haven't left the heart of many Nepalese. After-tremors haven't stopped. None have forgotten the pain caused by earthquake Despite the fact that government declared 14 districts as highly affected areas, no arrangements of residence have been made for them even after a year. Victims of earthquake have had to live a very difficult life because of the delay in renovation work. Many of Nepal's tourist towns are vacant these days. There's a negative impression upon many tourists because of the impact of earthquake upon Kathmandu, Bhaktapur and Patan area. Despite the fact that Nepal obtained tremendous support from the international community for the rebuilding process, it hasn't been able to channel it towards constructive ends.

"Slowly their tolerance to face the problem increases."

Research shows that people who have lost their loved ones and livelihood are more likely to suffer from significant severe psychological distress compared to those who have not. These kinds of disasters not only affect the victims but also develop a kind of mental, psychological and psychosomatic disorder in the rescue workers and medical teams. It is difficult for rescue workers to cope with a scenario where they are exposed to mutilated bodies, mass destruction of property and life-threatening situations. The aim of this paper is psycho-effects of people of earth quake exaggerated areas.

Methodology

This research work is based on the empirical study of consequences of earthquakes. A systematic methodological principle was followed in this study work. The whole work can be represented into three broad categories which are noted below-

Several buildings, most of them old, collapsed in the densely populated Kathmandu valley. Kathmandu‟s Durbar square, a UNESCO world heritage site, was totally damaged in the quake. Harsh damage took place to the parts of the palace complex in Vasanthapura Square.

The site of palaces and temples of the cities were warren of narrow lanes and historic structure. Kathmandu residents ran onto the streets and other open spaces, throwing up clouds of dust and wide creaks opened on paved streets and the building‟s wall. Earthquakes are often followed by landslides and rock avalanches and glacier avalanches in Himalayan hilly areas. The quake caused avalanches on Mount Everest, making the climbers running for cover and killing at least 18 people at the start of the main climbing season. At least 1000 climbers had been at the base camp of the Everest when the earthquake struck. The base camp had been severely dented and the teams were trapped (HelpAge. (2015)..

Results and Discussions

a. **Psycho-social counseling:**

This study found that older women experienced more trauma, anxiety and depression than older men and those women with disabilities were more impacted, again as measured by rates of trauma, anxiety and depression, than men with disabilities. Social stigma, fear and trauma as well as mental stress were prevalent among older women and women with disabilities. The study also found that older persons with disabilities were more severely impacted than adults with disabilities as measured by their scores on trauma, anxiety and depression scales. To reduce the impacts of stress, anxiety and depression and to minimize the fear of another earthquake, humanitarian agencies should provide specific psycho-social counseling and specialized mental health services, in particular targeting older women and women with disabilities (MWCSW. (2006)).

b. **Health services for older people and persons with disabilities:**

To reduce the health impacts on older people and persons with disabilities, the government and humanitarian agencies should organize outreach health camps in readily accessible locations. Despite the fact that it is the government policy to make available more than 20 essential medicines at health posts free of cost, older people and persons with disabilities do not often have access to this service. Government should facilitate that the relevant medicines are regularly available in the health post. Humanitarian agencies should educate people about this policy provision, especially as some older people said that they have been unable to buy their regular medicines since the earthquake(.Tomata, Y.et.al.2015)

c. **Allowances and relief materials:**

The specific needs of older people and persons with disabilities are different from those of other adults in terms of care and support.

Because they are more vulnerable than others, too, humanitarian agencies should establish a system for the equitable distribution of relief aid which specifically targets them. The relief aid should be age- and disable-inclusive and the focus should be more on cash than material support.

d. **Livelihood recovery:**

About 95% of respondents reported that they had lost property, 50% that they had lost livestock and 3% that they had lost one or more family members. Humanitarian agencies should concentrate their efforts on restoring lost livelihoods and design inclusive support for recovery. The economic recovery plans for older people and persons with disabilities should be based on local resources, skills and experiences and be well- integrated into the overall recovery programs at the community level. Humanitarian agencies should provide seed grants to OPAs and DPOs to run small-scale livelihood-based enterprises and they should be linked with the programs of Nepal's Poverty Alleviation Fund and with the Micro-enterprises Development Program wherever appropriate (ILO 2015)..

e. **Physical accessibility:**

The study found that even though adequate relief was sent to earthquake-affected areas, poor physical accessibility undermined the ability of persons with disabilities to access it. Though the humanitarian agencies provided assistive devices; the condition of roads, public buildings and means of transport were mostly inaccessible to persons with disabilities, rendering them of limited use. Humanitarian agencies, therefore, should advocate for the construction of disabled-inclusive physical infrastructures. NFD-N and DPOs should take a lead role in promoting advocacy for adopting provisions for disabled-inclusive facilities in new physical infrastructures.

f. Age-inclusive food aid:

Humanitarian agencies generously provided food aid to the earthquake survivors whose stored grains were destroyed by their collapsed houses. Agencies should assess the real food needs of older people before providing such food aid. Instant noodles and beaten rice, for example, are not the good options for the older people because of their age-specific difficulties in chewing hard food.

Table1. Nabel Earthquakes Ana Aftershock (April)

Date	Latitude	Longitude	Depth(in km)	Magnitude on Richter Scale	Region
25/04/2015	28°6' N	84°36' E	10	7.9	Nabel
25/04/2015	28°0' N	85°42' E	10	5.5	Nabel
25/04/2015	28°6' N	84°48' E	10	6.6	Nabel
25/04/2015	28°0' N	85°42' E	10	5.7	Nabel
25/04/2015	27°48' N	85°36'E	10	5.0	Nabel
25/04/2015	27°24' N	85°36' E	10	4.2	Nabel
25/04/2015	27°18' N	85°6' E	10	5.7	Nabel
25/04/2015	28°18' N	87°18' E	10	5.8	China-Nabel border
25/04/2015	27°42' N	84°36' E	10	5.6	Nabel
26/04/2015	27o36' N	85°54' E	10	6.9	Nabel
26/04/2015	27°42' N	85°48' E	10	5.0	Nabel
26/04/2015	27°42' N	85°54' E	06	4.0	Nabel
26/04/2015	27°48' N	85°0' E	14	4.6	Nabel
27/04/2015	28°6' N	84°54' E	05	3.5	Nabel
27/04/2015	26°42' N	88°6' E	10	5.1	Nabel – India (West Bengal) border region
30/04/2015	27°48' N	85°48' E	49	3.0	Nabel
12/05/2015	27°42' N	86°0' E	18.5	7.3	Nabel
29/05/2015	27°36' N	86°6' E	10	6.2	Nabel
16/05/2015	27°36' N	86°0' E	28	3.6	Nabel
07/06/2015	27°36' N	85°54' E	10	3.5	Nabel
28/06/2015	26°30' N	90°6'E	10	5.6	Kokrajhar,Assam

g. **Mainstream age, disability and inclusion-related issues in local development:**

To internalize age-, disability- and inclusion-related issues, governmental and humanitarian agencies should mainstream these issues in their administrative, human resource, and gender policies.

The provisions should be made in such a way that the VDCs carry out age- and disability-mainstreaming audits along with minimal conditions and performance measures to ensure that age and disability issues are included in local development (Okamoto, N., Greiner, C., & Paul, G. (2015)..

Conclusions

This study provides an insight into the situation and needs of older people and persons with disabilities in the post disaster period. Specifically it looked at the impact factors and coping capacities of these groups in getting relief or care. The study also examined the humanitarian responses to their needs in disaster time. The study assessed the impact of the earthquake across three variables: age, gender, and ethnicity. The study found that the needs of older people and persons with disabilities were under-addressed by the humanitarian response and that wealth as well as familial and social support played crucial roles in enabling older people and persons with disabilities to cope with the impact of the earthquake. Some humanitarian responders, including HAI, CBM, and Handicap International played a key role in meeting the specific needs of older people and persons with disabilities, but in many instances, these groups were forgotten: they were abandoned by their family members and overlooked by emergency relief operations. The physical challenges of older people and persons with disabilities, gaps in the flow of information, political influence, and erosion of social and family support resulted in the exclusion of older people and persons with disabilities from accessing humanitarian aid. The food aid provided during the humanitarian response was not sensitive to age and did not meet the food needs of older people. Sufficient care was not taken to include disability-inclusive shelters and WASH infrastructures. There is still a need for psycho-social counseling as well as for efforts to promote shelter reconstruction and livelihood recovery so that all older people and persons with disabilities can live a life with dignity. The age- and disability-specific services provided during the humanitarian response were often neither adequate nor relevant. Humanitarian responders should now focus on livelihood recovery among older people and persons with disabilities to help them bounce back from the impact of earthquake. They have the right to live lives of dignity in which they can meet with their basic and specific needs, a right that can be fulfilled by ensuring livelihoods. Inclusion of older people and persons with disabilities is necessary for the disaster preparedness and in the training to take immediate and appropriate action in the emergency (Okamoto, Greiner, & Paul, 2015).

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