

## Well- Being after Natural Disasters; Rising from the Ruins

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Although exposure to natural disasters is known to place survivors at risk for behavioral and psychological difficulties with victims varying considerably in their adaptation, research focusing on factors that promote their adjustment and well-being is lacking. This qualitative study was conducted to investigate in-depth the role of resilience, culture and coping strategies in female disaster survivors living in the shelters two years after the Kashmir earthquake. The results of this study show that not only were women survivors as resilient as men but they employed active coping strategies as well, moreover the role of faith, education, social support and resilience in the adjustment after natural disasters has been discussed. It is suggested that interventions after disaster should be based on indigenous cultural beliefs and practices and should focus on strengthening prevailing community coping strategies as well as to educate the survivors to work towards small but possible goals to attain a sense of control over their environment.

*Keywords:* resilience, culture, social support, faith, coping

The extensive and enduring effect of natural disasters is apparent on the psychological and physical health of survivors (Galea, Nandi & Vlahov, 2005; Hull, Alexander, & Klein, 2002; Morgan, Scourfield & Williams, 2003). Natural disasters are not only more common in developing countries but also have greater devastating impact there. It is observed that 90% of natural disasters and 95% of disaster-related deaths occur in developing countries (Kar, 2009).

During the past two decades millions of people have been killed due to the increase in occurrence, complexity, scale, and destructive capacity of natural disasters like earthquakes, windstorms, tsunamis, floods, landslides, volcanic eruptions and wildfires. At least one billion or more people have been adversely affected by them, and massive economic and psychosocial damages have resulted. The Indian Ocean Tsunami in 2004, Hurricane Katrina in New Orleans in 2005, L'Aquila earthquake in Italy in 2009, and recent flooding in Pakistan and the UK have all created serious losses and damages, and have heavily disrupted essential community functions. Effects of disasters are seen not only at individual level but also at family, societal, and national level.

On October 8, 2005 at 8.30 am, Pakistan's northern region was hit by an earthquake, which measured 7.6 on the Richter scale. Damage was widespread; an estimated number of 3.5 million people were affected by the earthquake, (Preliminary Damage and Needs Assessment Report, Asian Development bank and World Bank, 2005) with continuing aftershocks, causing massive physical destruction, loss of life and social and psychological disturbances. Although the occurrence of earthquakes or other calamities cannot be avoided, an in depth perceptive understanding can assist in anticipation and identification of different probable effects a disaster can produce.

Previous researchers hold different viewpoints regarding the

variables responsible for rebounding from misfortune. One of the theoretical perspectives to disaster research is that of diathesis-stress framework, which suggests that the recovery from trauma following a disaster is an interaction of preexisting susceptibility, psychosocial factors and environmental stressors (Benight & McFarlane, 2007). Another approach is of the social cognitive theory which looks at the process of adaptation after a disaster as resulting from enabling factors (Bandura, 1997; Benight & Bandura, 2004). These factors equip a person with individual resources to influence not only one's functioning but one's life circumstances as well. Resilience to adversity relies more on personal factors than on environmental stressors.

Holder of this agentic view of personality, Bandura (1997) maintained that "people are self-organizing, proactive, self-reflecting, and self-regulating, not just reactive organisms shaped and shepherded by external events. They have the power to influence their own actions to produce certain results and the capacity to exercise control over one's thought processes, motivation, affect, and action operates through mechanisms of personal agency" (Bandura, 1997; Benight & Bandura, 2004, p. 1130). Keeping this in mind the role of resilience has been examined in the recovery process of the earthquake victims.

*Rationale of the study*

Understanding the ways in which adversity interacts with the day to day demands of the survivors is important. Deprivations and social anarchy after the calamities often lead people to additional chaos. Therefore, it is crucial to recognize the cultural context of the survivors of disaster in order to facilitate their rehabilitation. According to Hobfall (1991) the disadvantage that emerges in the face of losses and death can create a cycle of further lost opportunities and secondary adversity.

Exposure to major stressors like natural disasters can place survivors at risk for emotional, behavioral, and psychological difficulties, with victims varying considerably in their adaptation subsequent to natural disasters. Thus, by enhancing understanding of the impact of the earthquake on survivors and factors that influence their adjustment, we can provide valuable guidance to the policy makers and help them in designing appropriate programs for the suffering communities.

## Aims of the study

This study investigates the factors, which facilitated the well-being of the survivors two years after the Pakistan Kashmir earthquake, when they were close to leaving the shelters and moving back to their constructed houses. It aimed to distinguish the variables, which proved to be successful in helping the survivors resume their normal life patterns from those, which hampered their adjustment while highlighting the importance of the traditional cultural beliefs and norms of the natives of Kashmir in the adjustment of the survivors. The focus of this study is on resilience in relation to the earthquake survivors specially the women, the local context in terms of the cultural compositions of Muzaffarabad and faith in increasing human endurance of the Kashmiri people. So far, the well-being and coping of the survivors of Kashmir earthquake have not been addressed by previous researchers. It is pertinent to examine these issues and understand its significance for rehabilitation.

## Method

The present research is a mixed method research, in which phase one dealt with quantitative investigation focusing on adaptation of the COPE scale for disaster survivors as well as identifying predictors of Psychological Well Being in earthquake survivors. In phase two qualitative inquiry was held to understand and appreciate in depth, the mechanisms which were responsible for the adjustment of the survivors. Philips (2002) suggests that disaster research is best conducted by relying on qualitative research strategies.

The following psychosocial factors which promoted the well-being of the Pakistani survivors were examined.

Resilience has been understood by the following definitions of Wagnild and Young (1990, p.253) "Resilience as a concept connotes emotional stamina and has been used to describe persons who display courage and adaptability in the wake of life's misfortunes". Coping has been taken as a response to stressors (Lazarus, 2000) and thus as an attempt of the individual to master situations of fear, calamity and disaster (Garland & Bush, 1982).

Faith is understood as "a powerful coping behavior that enables people to make sense of suffering, providing control over the overwhelming internal and external forces of nature, and promotes social rules that facilitate communal living, cooperation, and mutual support" (Koenig, 2009, p.286).

Sarason and Sarason (1990) defined social support for the survivors as an especially protective factor, which has shown to have a shielding action.

Recovery from trauma was operationally defined (in current study) as initially moderate to severe levels of psychological distress and significant disruptions in daily functioning that abate gradually over the course of many months before returning to pre trauma levels. By contrast, resilience was defined as either the absence of symptoms or the presence of a few mild symptoms in conjunction with a relatively stable level of healthy adjustment over time.

Following information is given to comprehend entirely the geographic and socioeconomic aspects which are prevalent in Muzaffarabad and therefore influenced the adaptation of the participants of this study; Muzaffarabad is Pakistan's Kashmir main town lying at an elevation of over 1200 meters from sea level. The mean range of temperature for January is 3.2 C to 15.9 C and for June is 37.6 C to 22.1 C (WMO, 2007). Moreover the monsoon season adding to the miseries of the Kashmiri people results in

severe flooding and landslides. Income sources of the inhabitants are agriculture and livestock 64%, laborers 20%, small business 8%, and Government service 7%. Although the earthquake adversely affected the livelihoods of 1.5 million people, their means of livelihood remained the same, and 34% of the population still lives below the poverty line (ERRA, 2002).

## Participants

Initially 120 families of the Kashmiri survivors were approached however, the present study included only those survivors, who were victims of the 2005 earthquake, lived in the shelters, were not physically or mentally disabled, and were between the age brackets of 20-65 years old. All survivors represented the lower middle class and included both, working and non-working class participants. Despite the fact that most of the survivors agreed to participate in the study, it was decided that only 100 survivors from among these families would be included as they fulfilled the criteria. The remaining sample was equally divided for gender. However for the qualitative inquiry only twenty five women survivors were approached. As mostly women were available for the detailed interviews and because of the cultural constraints men were unwilling to talk in detail to women researchers. Among this sample the education level varied from uneducated to Matric and Bachelors.

## Procedure

Survivors from four shelter homes were used for this study. The names of these shelters were Ranjaata camp, Sangri Maera camp, Zero point camp and Thori camp. Each participant was contacted and described the purpose of the study in detail and after taking their consent to participate the interviews proceeded. A local leader in the shelters was asked to assist us while collecting data.

This study used qualitative research methods to document a range of perspectives generated by semi-structured interviews with the survivors focusing on the variables, which helped or hampered their adjustment. It was also assessed, how culturally relevant activities were helpful in coping with the effects of earthquake. Constructionist approach (Buller, 1995) was followed in the semi-structured interviews in the sense that the researcher understood the different viewpoints as each reflecting a relevant reality that was true for each participant. This means that the concern was not with evaluating or distinguishing between perspectives that could be deemed "right or wrong", but rather to infer the accounts produced by the interviews, as all depicting relevant representations of the issues under exploration.

## Interview Schedule

An interview schedule was prepared after identifying the factors, which had helped or hampered their adjustment. The factors were identified with the help of quantitative part of the study as well as focus group discussion. This was done to ensure that a maximum number of thoughts and opinions of the survivors was taken into account as well as to test the relevance and suitability of the questions. Survivors were encouraged to share their experiences, however when there appeared a need for further clarification prompts and probes were used. The questions were both open and close-ended. Collecting data was an extensive job requiring patience, as survivors would answer in intervals taking out time to

go and attend to their other needs. The interviews were audio taped and were transcribed for further analysis.

Analysis of material

Our approach in conducting interviews was constructionist after which thematic analysis of the material was conducted. The aim was to organize and synthesize key themes and issues emerging from the accounts generated from the survivors. Cultural norms and traditions were kept in view to be able to reach to culturally sensitive conclusions. The emergent themes were validated with the help of a colleague who had expertise in qualitative analysis and were further discussed with the supervisor of the research. This method of validation was in line with the methods suggested by Andrews, Lyne, and Riley in 1996.

Results

Resilient society

Wagnild and Young (1993) defined resilience as ‘a personality characteristic that moderates the negative effects of stress and promotes adaptation’. The demonstration of resilience despite the hardships they had faced was very clear from the survivor’s accounts. Although research that is more systematic needs to be done on the identification of mechanisms that provide for resilient societies, it would not at all be unfair to call the Kashmiri resilient.

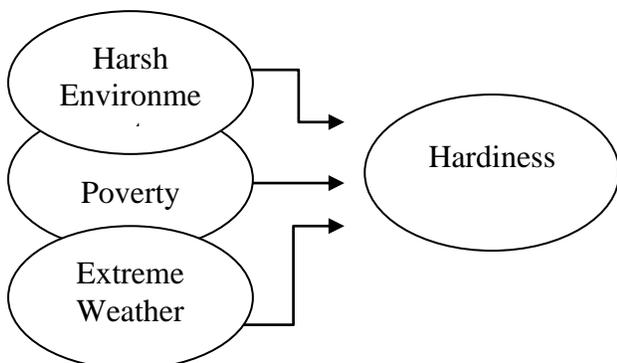
The will to bounce back in the words of one of the resilient survivors.

*Our houses are destroyed and shops are ruined, schools are gone, our cattle have been killed. We are in shelter camps but whatever happened we have to get on with our lives now’*

In an answer to the question, as to how the survivors endured severe weather conditions.

*Sometimes it seems that the rain will drown us in the Neelum valley or the bitter cold is difficult to endure, but our fore fathers were courageous and so are we.*

Figure 1.1 Living in harsh conditions has promoted hardiness them



Faith

Their faith in a higher authority was evident from their reaction to the losses that they had endured. It was amazing to observe the strength of their faith, belief that all adversities come from Allah and so will the solutions. Their strong belief in life after death and the conviction that whatever happens is for the best gave them hope and continuity as they fluctuated between intense emotions of loss and gratitude for the surviving loved ones and for whatever valuable was left. Often practicing prayer and peace can lead to resilience and may be seen as a psychosocial response to disasters by religious communities (Fernando & Ferrari 2011; Greef & Loubster 2008).

One survivor gave an account that depicted his strong faith,

*As he was passing by a shattered building he heard the screaming of children, he tried to rescue but the remains were too heavy, He prayed for help and asked the children to recite Quranic surahs as well. As the children became less fearful he again tried to rescue them.*

Another survivor mentioned how praying made him composed and less distressful,

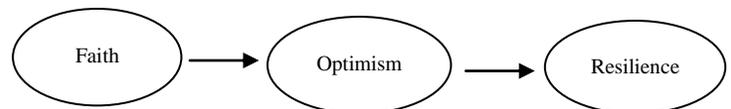
*After knowing my friend had lost his wife and children and my brother's family was seriously impaired because the roof of their house fell on them, the only thing which calmed my nerves was praying.*

Recalling the day of the earthquake one survivor said that although people were stuck in the debris they were reciting the Quran. In his words,

*Chanting of the Kalimah could be heard everywhere, it was as if everyone was unanimous in their belief. Every second a death was taking place*

The survivors believed that it is often events such as these that shook their confidence in this life and made them more aware of eternity. They realized how fragile their lives really were, and it forced them to reevaluate the priorities in their life. All survivors reported that recitation of the Holy Quran and praying to Allah helped them to stay calmer. It seemed that their faith gave them hope and strength to endure the sufferings, it was this leading them to resilience.

Figure 1.2 Faith leading to resilience



The earthquake brought them together in the shelter mosques and provided them with opportunities to ventilate their feelings of loss and to share their accounts of suffering. Strong belief in life after death gave them hope to unite with the loved ones as they prayed together for the departed souls.

While questioning survivors about the kind of support they had, most of them said that the one central support in their lives was that

of Allah, they relied heavily on it and knew that whatever will happen will be for the best.

*Life is not like it was before, we feel a lot of pain and misery but we also know that everything is temporary in this world and whatever Allah has in store for me will be for the best.*

*My Allah is enough for me, only He is the provider, and He will cater to my needs.*

### Social support

The benefits of social networks in well-being are well established (Cobb, 1976; Cohen & Syme, 1985; House, 1981) Therefore adjustment to stressful life circumstances can be successful if survivors possess more extensive and supportive social networks.

Survivors described the importance of social support that they had received from non-traditional sources; they mentioned how people from other communities or distant relatives, volunteers and Pakistani people had been helpful. This was mainly because their conventional social support networks had been ruined or disrupted in the disaster due to deaths, injuries, or post-disaster life events.

Following accounts are from survivors, who had been taken to Islamabad for hospitalization,

*In the hospital no patient was left alone, even if all the family members were dead, someone would try to be there to help with food and medicine and if nobody could, relatives of another patient would care for us instead.*

*After the earthquake, we were airlifted to Islamabad. I was wounded and admitted in hospital where I had to undergo two surgeries on my legs. After some days I was sent to another hospital, everybody took care of me and volunteers looked after us. We were in deep trauma and very depressed, there was nothing to look forward to. Our Pakistani brothers and sisters gave us a lot of support which really helped us to cope.*

### Breakdown of the Family Support System

Kinfolk are the main source of support for Pakistani Kashmiri family. Support groups are not formed in the workplace or in the neighborhood. Marriage many times is seen, as an attempt to create a stronger social bond. In difficult times a particular married couple would draw support from the husband's side of the family; otherwise the wife's side of the family would be approached. The dilemma, which occurred after the earthquake, was that the family support system was destroyed; both sides of the family system were equally damaged and destroyed. Helplessness cropped in when everyone you looked at within your support group was looking at you with the same helplessness in their eyes as yours. This complete breakdown of the maintenance network led to a plethora of confusion and dismay. The cultural practices for mourning of the dead could not be followed and were greatly missed. This added to the pains of the bereaved survivors. In their words,

*Everyone was digging out dead bodies and burying them. Nobody could be asked for help. Everyone was involved with their own personal calamity. Many persons were wounded and were left out in the open when the rain started. Some dead bodies were buried and some were left. We all were living in the open sky. There was not a single place where we could take shelter from the rain.*

*The layout of our neighborhood was drastically different. Familiar people had disappeared. Nooks and corners we were accustomed to had vanished. The earthquake took our loved ones never to return. Instead of the local plants and trees there were dead bodies everywhere.*

*When my sister died, there was nobody there for help; everybody was too engulfed in their own problems.*

### Impact of Education on Rehabilitation

During data collection, it was apparent that there were two classes of people in shelters, those who were well off, were educated, and had some kind of property while the others were mostly villagers who were not educated. The survivors who were educated realized the need to move as swiftly as possible to regain their original status. Dependence on anyone but themselves was unacceptable to them. These people utilized the support from donor agencies and the government to rebuild their destroyed homes and evacuated the shelters as soon as they could. Relief goods were made use of and money received was spent on rebuilding their homes. The sense of urgency to be as comfortable and independent as they once were drove them on. As one educated survivor remarked,

*I get distressed when I think of my old house which I made for my children's security, but I thank Allah for having blessed me with such a protection again*

However, there was a difference between these people and those who had come from the peripheral hamlets or mountains of Muzaffarabad and Balakot. The villagers had a completely different lifestyle, as most of them were uneducated. The men were mostly daily wage laborers and the women worked on self-sustaining farms. Landholdings were little or none and those too were without any legal documentation to grant them rights over the land. During the early reconstructive process, these locals were introduced to modern concepts of strong shelters to house them with running water, electricity and gas. Back in homes, which no longer existed, such essentials were absent, either due to lack of accessibility or lack of income of these people to pay the charges for these utilities. They had settled well in the shelters and were not interested in going back. As expressed by one of the respondents,

*None can understand the agony of a catastrophe; but we are comfortable in these shelters and don't want to go back.*

“Studies have shown that long after the world press has moved on, local catastrophes can have profound long-term effects on the lives of the people involved and these have the potential to permeate and eventually alter the society as a whole” (Mbunwe-Samba, 1999; Grayson & Sheets, 1979, p. 628; Oliver-Smith, 1986, p. 320). Furthermore, disasters can increase the rate at which social processes take place (Blong, 1984, p. 186; Oliver-Smith, 1996, p. 313).

### Awareness of rights among women

The social structure of Kashmiri society is patriarchal and conservative. Mostly the family structure is joint; the women observe purdah and are responsible for house management and upbringing of children.

Among the rural women's basic errands are hauling water, cooking, washing, home repair as well as irrigation of family orchards and fields. The women take up bulk of the farm and family responsibility and informally contribute to the sustenance and financial security of their family (Hamilton & Halvorson, 2007).

Before the calamity the work outside of home management was taken care of by the men, women were confined to the chores at home. Young girls were allowed to go out and that too only for basic education before they reached puberty. The earthquake changed all this as several families lost their men folk and women had to assume their role.

*After my husband's death, there was no support from anybody. My daughters and I managed to make our house with Government funding; though it was difficult but once we decided to stand on our own feet everything became achievable.*

Two years after the earthquake, it seemed that the scene was changing for the women. The earthquake seemed to bring about a cultural change due to the rehabilitation programs launched. These made them conscious of their rights, promoted independence and made them realize the importance of education. Since then women have been on the frontline of reconstructing infrastructure and participating in community based rehabilitation leading to approximately 5,600 new female headed households (ERRA, 2006). This demographic change had a huge impact on the gender status in this area where traditionally only the male member was considered the head of the family. NGO's agreed to give loans for home building in the women's name; this made the women more central in the building of the new homes and enabled them to co-own their home with their husbands.

### Active Coping

The realization that the survivors were on their own, resulted in resilient people espousing active coping strategies. They were no longer dependent upon any support group because the realization had set in that if a disaster strikes again, there was no help. Thus, a need for self-dependence had set in their new lifestyle. As one courageous survivor remarked,

*When a calamity takes away our belongings, we still have the capacity to achieve things in life; it's up to us how we utilize our efforts*

It is crucial to look into the ways in which women and girls may be at risk in disasters as well as to understand their capacities and strength in varied circumstances. Women can be capable strong and resilient in spite of often being portrayed as helpless victims who need rescuing in disasters. The following account depicts the resilience of a Kashmiri mother.

*The earthquake came when I was out in the fields looking after my cattle. On hearing the screams I ran without shoes and my headscarf. In a second it seemed the world was coming to an end, everywhere there was blood. I saw my son's body and picked him up; on reaching home my daughters face could be seen under the debris. I lost all hope and wanted to die but the hope of finding my other children made me live. After a lot of effort they were found with my husband's family. It was very dark by the time I found them so we decided to wait till morning although heavy showers came and we sat with my angels lying there in front of me. When I buried*

*them they didn't even get a shroud (kafan).I couldn't have imagined this to happen to my worst enemy*

Before the earthquake, the women were working from home and their income generation was discrete, they were preparing food and handicraft items, which were taken to the market by the husband, however the earthquake changed all this. However the resilient among them continued to work from their shelters. As stated by a young woman whose husband had died in the earthquake,

*It is easy to sit and wait for the world to pity us but difficult to look the trouble in the eye and stand on one's own feet. I have taken a stitching machine from one of the NGOs and I am stitching clothes for people in shelters.*

The losses for the women in the disaster were immense. Apart from losing their loved ones especially their children, they also lost their cherished treasure items that had emotional value for them. For e.g. dowry, jewelry, and utensils that they were saving for their daughter's dowry and from their cultural perspective ensured their daughters marriage prospects. As home is the domain of women, the loss of home and belongings makes it more difficult for them to survive disasters. In the words of a woman survivor,

*Out of everything that was damaged, most precious was the necklace given to me by my mother*

Figure 1.3 Impact of the earthquake, led to active coping, which resulted in resilience



### Discussion

The aim of this disaster investigation was to broaden our understanding of the impact of disaster on families and communities, and focus on factors helping to promote recovery. In trying to outline the reasons, which make Kashmiri's resilient, one can be their hardiness. There is evidence that hardiness is a personality trait that protects against extreme trauma, it promotes individuals to stay robust physically and emotionally despite confrontation with stressful circumstances (Kobasa, Maddi & Khan, 1982). One of the dimensions of hardiness is overcoming of adversities, and making it easier to handle and experience stress (Kobasa, 1979). Hardiness among the Kashmiri's may be partly due to an interaction between the stresses of poverty (living in impoverished conditions) the severity of the weather and being situated geographically in a harsh environment.

Traditionally Kashmiri people are known for their hospitality, they look forward to having guests and like to assemble in groups and discuss things over a cup of tea which may confirm social coping. Therefore, after one year of the calamity and in spite of the trauma they had faced, they were pleased to meet the researcher and offered their best. All survivors were very willing to share their experiences and reflect on what happened and somehow as they unraveled themselves it confirmed to the researcher that they were

ready to move on with their lives. This very quality of the Kashmiri survivors of being open and social can be used as a facility to gather them in groups for suggestions and modeling of appropriate behaviors

Since turning to faith emerged as the most popular coping used by the survivors their religious belief can be turned into an effective intervention. By listening with sincerity and unconditional acceptance and letting the survivors explore whatever gives them hope and optimism. The survivors could be encouraged to have faith based expressions of support and to seek solace in their faith. Other factors responsible for buffering their sorrows were the experiences of solidarity and cohesion after having faced a huge calamity as a community. Somehow disasters allow the inherent good in human nature to emerge, concern for others, unexpected acts of kindness, increase in tolerance, displays of courage, and a sense of good will are commonly observed which can strengthen their bond as survivors and help them to help each other (Bestore, 2013).

The suggestion by world health organization (2003) asking disaster organizations to collaborate with local resources e.g. traditional healers in responding to affected community or community members assisting in problem solving and designing interventions (Reyes & Elhai, 2004) could be seen effective in this area as several community members used to facilitate the survivors by making groups in the shelters, which helped them to earn their livelihood as well as for the women to leave their children with other trustable shelter members while they would attend to earning or assist in building their houses. This kind of social support can also model coping attitudes and skills, and motivate others by showing that difficulties are surmountable by perseverant effort. The enabling function of social support may enhance resilience. (Ozbay, Jhonson, & Southwick, 2007).

Another important finding of this study which may have helped the survivors to move on with their lives were cultural changes in the lives of rural, this may be in line with observations of some researchers that although traumatic events may be damaging for the population, they are sources of new opportunities that would not have been otherwise (Saleeby, 2002).

The survivors of the rural disaster hit area had limited knowledge and exposure to modern technologies. The rehabilitation process introduced by foreign NGO's exposed them to certain conveniences like, televisions, fridges, air-conditioning or cooling systems for the summers, effortless and smokeless (electric) irons and heaters as well as modern medical facilities that they had not been aware of.

Their exposure and contact with the educated people like doctors, engineers, nurses and volunteers who had set up camps to attend to the needs and requirements of the survivors led to not only awareness but also change in the lifestyle for the better.

### Conclusion

Post disaster studies can ascertain safety of our future generations and enhance our knowledge socially, culturally and environmentally. It was evident from this research that resilience plays an important role in rehabilitation and engaging survivors to contribute to their own welfare will go a long in empowering them.

### Limitations

This study was conducted approximately two years after the earthquake of 2005, it aimed to measure the well-being of the

survivors after this lapse of time. Previously it has been recommended that resilience in response to a specific event be measured by assessing the events initial detrimental effect, the time required to regain stability, and the long term effects of the event (Rowe & Khan, 1997). This study lacks participant validation due to complex circumstances, future research can benefit from including validation from participants or significant others while data collection.

### Implications

Although the disaster setting is chaotic, with challenging priorities and resource constraints that requires an urgent mode of action regarding the practical needs of the population, it does not imply that knowledge on processes like adaptation and resilience should be overlooked, as this forms the basis of long-term adjustment.

Conducting post disaster studies which highlight the damages both physical and psychological is advisable but it should be kept in mind that arranging such studies is complicated because of the ground realities. However, data gathering should be an integral part of disaster relief and support work, as this advances the understanding of the trauma suffered by the victims. Long-term potential studies on the effects of disaster to find the effectiveness of supportive measures provided to the victims, can prevent morbidity in the survivors and help them to readjust.

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