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Social issues and post-disaster recovery: A qualitative study in an Iranian context

Fardin Alipour
University of Social Welfare and Rehabilitation Sciences, Iran

Hamidreza Khankeh
University of Social Welfare and Rehabilitation Sciences, Iran; Karolinska Institutet, Sweden

Husain Fekrazad
University of Social Welfare and Rehabilitation Sciences, Iran

Mohammad Kamali
Medical University of Iran, Iran

Hassan Rafiey
University of Social Welfare and Rehabilitation Sciences, Iran

Shokoufeh Ahmadi
University of Social Welfare and Rehabilitation Sciences, Iran

Abstract
The physical impacts of a disaster are usually the most obvious impacts, and they are easily measured. However, there is not sufficient in-depth understanding of social issues arising after disasters. This qualitative study explored three main concepts regarding social issues after an earthquake in an Iranian context: social vulnerability, social uncertainty and confusion, and ignorance of local social capital. Negligence of social issues after disasters leads to delays in returning back to normal life. Policymakers are encouraged to take a comprehensive plan into account which considers these issues and facilitates the process of returning to normal life after earthquakes.

Keywords
Disaster, recovery, social issues, social work

Corresponding author:
Hamidreza Khankeh, Department of Clinical Science and Education, Karolinska Institute, Solnavägen 1, 171 77 Solna, Stockholm, Sweden.
Email: hamid.khankeh@ki.se

Introduction

Natural or man-made disasters are significant concerns for human societies worldwide; potentially, they have devastating consequences for economic, social, medical, and public health arrangements. Nevertheless, although events beyond our control may trigger a disaster, it is the characteristics and circumstances of a community that make it susceptible and vulnerable to the damaging effects of a hazard. Indeed, the level of community and government preparedness and the existence of a comprehensive plan for disaster response and recovery can greatly determine the extent of suffering endured by the affected population (Blaiki et al., 2004).

Historically speaking, natural disasters have always been a challenge for Iran with over 40 million Iranians having been significantly affected by natural disaster from 1900 until 2007. Earthquakes have been particularly destructive because Iran is situated over the intersection of the Arabian and Eurasian tectonic plates. On average, 2000 to 3000 Iranian people lose their lives annually due to such incidences (United Nation Office for Disaster Risk Reduction (UNISDR), 2013). The Rudbar-Manjil earthquake (1990), Bam earthquake (2003), Golestan flash floods (2000–2005), Lorestan earthquake (2006), Azarbaijan earthquake (2012), and Bushehr earthquake (2013) were the most destructive disasters during recent decades.

The focus of this study was on the 2012 East Azarbaijan earthquakes that occurred near the cities of Ahar, Heris, and Varzaqan in Iran's Eastern Azerbaijan Province. Two quakes measuring 6.4 and 6.3 on the moment magnitude happened within an 11-minute interval. At least 306 people were killed and more than 3000 others injured. The worst damage and greatest number of casualties were in villages near the towns of Varzaqan and Heris because most of the structures were constructed using traditional means of clay bricks mixed with straw. As a result, more than 40 villages were completely destroyed, whereas more than 100 villages suffered varying levels of damage. These earthquakes caused panic among 2 million people in the Azarbaijan province, causing many people to sleep outside for two nights. Many of the victims were women and children, killed under the rubble of falling homes as the earthquake struck in the late afternoon, a time when men were still outdoors working on agricultural lands. In order to fully comprehend and assess the different aspects of a disaster, research in this field requires an interdisciplinary approach. Disasters from a social work perspective encompass the community-wide disruption in social, economic, and environmental conditions which are necessary for well-being (Zakour, 1997). With this approach, disasters as disruptions in communities tend to unfold and develop over time, leading to collective stress and biological, psychological, and social dysfunction (Norris et al., 2009), and thus, disaster management may be viewed as a process by which individuals, groups, and communities manage or ameliorate the impacts of emergencies, disasters, and other hazards (Tan, 2013). Social workers involved in disaster management are concerned with not only practice, but also policy and programs. At policy levels, social work deals with the development of plans to respond to various outcomes of all types of disasters. To put it precisely, social workers have many functions in disasters such as providing support for individuals, families, and communities; linking individual needs and resources and helping the client to access resources; preventing severe physical and mental problems; preventing individuals, families, groups, organizations, and communities from breaking down; intervening to change micro and macro systems to improve client well-being; improving community cohesion and rebuilding families and communities; situational supporting; giving hope; consoling; assuring; concentrating; solution developing and referring; and tackling inequalities in health care (Chou, 2003; Doostgharin, 2010; Iravani, 2005). Furthermore, community recovery is an essential part of disaster management that refers to a coordinated process of supporting disaster-affected communities in reconstruction of physical infrastructure and restoration of emotional, social, financial, and physical well-being (Emergency Management Australia

(EMA), 2004). Post-disaster recovery, taking its gross significance into account, is one of the least studied topics within the research field of natural hazards and disasters (Chang, 2010; Comerio, 2005). We believe that the disaster recovery process is a reflection of the social work mission, so investigation into social issues after earthquakes with a social work lens is very important. Nevertheless, a review of the literature showed that social work has been less involved in this phase than in traumatic stress intervention and coordination of relief efforts (Pyles, 2007). More importantly, most of the studies in the field of disaster recovery have focused on describing one or two aspects of disaster recovery, such as physical recovery (Gutmann et al., 2006), psychological interventions (Stuber et al., 2006), physical injuries (Trout et al., 2002), and social capital (Buckland and Rahman, 1999; Davidson et al., 2007; Nakagawa and Shaw, 2004). Consequently, there are limitations in social approaches and they usually do not properly consider the variable range of long-term social needs of societies after disasters (Dash, 2009).

On the other hand, many studies have mentioned social and economic status as one of the most important predictors of rehabilitation after disasters (Berke and Timothy, 1993). Ramakumar (2008) has introduced the pre-disaster economic situation of a household as one of the most important factors in determining how people will spend days, weeks, and even years after the event. Ahern and Galea (2006) have noted the direct relationship between income inequality and depression within a period of 6 months after a disaster. Moreover, regarding children as a vulnerable group, some studies emphasize the need to give them more attention and provide immediate support, especially mental health care for children and young people (Doostgharin, 2009).

To the best of our knowledge, there is currently no comprehensive study on social outcomes of disasters in Iran. Previous studies have suggested instructions for mental health interventions (Ahmadi, 2004), management inconsistencies (Khankeh, 2007), and health-care management (Djalali et al., 2011; Khankeh et al., 2011, 2013). However, most of these studies have not comprehensively evaluated the social issues after disasters in an Iranian context, and more importantly, they have not used a qualitative approach to better understand the experiences and perceptions of disaster survivors. The current study, accordingly, aimed to investigate the experiences and perceptions of disaster recovery workers and affected people regarding social issues that emerged after the aforementioned earthquakes.

Research method

Study design

A qualitative approach using content analysis was used for our study. In this method, information from participants is gathered directly without any preconceived hypothesis. Produced knowledge, thus, is based on unique viewpoints of participants with minimal researcher bias. Codes and categories are derived by an inductive process and are conceptually ordered considering developed properties and dimensions. Qualitative content analysis is, indeed, a research method utilized for subjective interpretation of the content of text data. Through a process of regular classification, implicit and explicit themes or patterns in the text can be identified (Hsieh and Shannon, 2002). Pope et al. (2002) contend that this method concentrates on life experiences along with the interpretations and concepts attached to those experiences.

Setting and participants

As mentioned, the study was conducted in rural areas of Azarbaijan where there were two massive quakes, referred to earlier. To gather more in-depth, richer experiences of people in the affected

area, 27 participants were chosen using a purposive sampling method to achieve maximum diversity (Holloway, 2005). Sampling continued until data saturation was reached. Of the participants, 20 people experienced the earthquake first-hand and 7 people, including 3 social workers, 2 psychologists, and 2 local health workers, had scientific expertise in disaster recovery. Also, two focus group discussions were held to complete the data collection and understand the meaning of primary results.

Data collection

Semi-structured interviews, focus group discussions, and field notes were used to collect data. Since researchers were looking for the meaning of experiences of the people, the best strategy to capture the meaning of experiences is asking people and conducting interviews to share their experiences. Following the initial data collection and analysis, we wanted to know what is the meaning of the primary results of the study and clarify this finding, so researchers decided to run focus groups to share our primary findings with people who were good informants and had first-hand experience about the phenomenon under study. Data collection was done by the main researcher, who has lived in the affected areas for about 18 months (August 2013–January 2014). He could find the key informants who had thick experiences. After this, participants were invited to participate in a noncoercive way and requested to read and sign an informed consent form. Following the initial data collection and analysis, participants were selected according to the needs of the study. Participants included were anyone who had something to offer that was relevant to the general topic area. Initially, participants were selected based upon their first hand experiences. Later on, participants based on explored categories were selected entirely through purposive sampling.

Before the interviews, by introducing himself and expressing the aim of the study, the main researcher obtained the informed written and oral consent of the participants. The interviews were tape recorded and transcribed verbatim. On average, each interview lasted 30–60 minutes. Interviews began with a broad question about participants' experiences and events they had observed. Probing was performed according to the reflections of each participant on different concerns of life after earthquake.

Data analysis

Qualitative content analysis was used to analyze the data. Systematic stages were followed and simultaneous analysis was undertaken: first, recorded interviews were transcribed verbatim. Then, before coding, the transcribed text was read several times for familiarization. Codes and categories were extracted by an inductive process via open coding through line by line reading of the text and devoting relevant codes to it. Then, categories were derived by constant comparison. Peer check and constant comparison were used to reach a consensus in coding. In fact, data analysis was performed simultaneously and continually with the data collection. After completion of coding and assuring accuracy of coding, concepts were identified.

Trustworthiness

We used the strategies recommended by Lincoln and Guba for trustworthiness of our data. According to this recommendation, the criteria necessary for trustworthiness include credibility, dependency, conformability, and transferability. To ensure data creditability, the researcher actively engaged in the disaster environment for 18 months while continually making observations and

Table 1. Characteristics of participants.

Variable	Value	Range
Age (mean ± SD)	41 (11.3)	18–66
Gender, n (%)	Male, 21 (77%)	
	Female, 6 (23%)	
Education, n (%)	Illiterate, 5 (18%)	
	Below diploma, 9 (33%)	
	University degree, 13 (48%)	
Marital status, n (%)	Married, 24 (88%)	

SD: standard deviation.

compiling field notes. Dependency of data was assessed by peer check strategies performed on a monthly basis, so that the research team had a thorough discussion about the derived data. The background and personal interest of the researcher on the subject and maintaining documents of study were used for conformability of data. The context of the interviews, codes, and extracted categories were reviewed by the research team and other professional colleagues in the field of qualitative research. Using sampling with a maximum variation, the researchers were able to collect a wide variety of different comments, observations, and interpretations.

Ethical considerations

Informed consent was obtained through explaining the aim and process of the study orally and in writing. The study was approved by the ethical committee of the University of Social Welfare and Rehabilitation Science (USWR) Tehran, Iran. Information was kept confidential, and participants had the right to withdraw at each stage of the research.

Results

Of the 27 participants of the study that included survivors of the earthquake-stricken areas and qualified people with scientific expertise, the mean age was 41 years; 21 participants were men, and 3 were single. Literacy level ranged from illiterate to postgraduate (Table 1).

This study explored three main concepts regarding social issues that emerge after earthquakes: (1) social vulnerabilities, (2) social uncertainty and confusion, and (3) ignorance of local social capital. These main categories and their subcategories are explained as follows.

Social vulnerabilities

Results of the study showed that the disasters are associated with people's everyday life. The severity of damage and its consequences depend on different factors, namely, socioeconomic vulnerability of people. Experiences and perceptions of the participants indicated that natural events are not the only obstacles impeding their return to the life, but different factors affect the severity and quality of this process. Through our analysis, four subcategories emerged regarding social vulnerabilities: (1) social problems before the earthquake, (2) negligence of vulnerable groups, (3) focus on reconstruction and negligence of rehabilitation, and (4) vulnerability due to wasted assets. The subcategories are described in the following.

Social problems before the earthquake. Social problems before the earthquake increase vulnerability and significantly delay people's return to normal life. Most of the participants believed that factors such as poverty, inequality, and unemployment were the main factors that increased their social vulnerability and created problems in returning to their normal life in an efficient manner:

> … the problems and challenges that we had before the earthquake are still with us and make our lives more difficult. Now, the condition for people who did not have a good financial situation before the earthquake is worse than others and they still couldn't get back to their normal life. (Participant No. 4; resident, man, 65 years old)

Participants believed that people who had physical, social, and personal vulnerabilities did suffer the most losses incurred by earthquake:

> … people who did not have a good financial situation, or had suffered more losses, or had lost one of their close relatives are having more difficulties and should be protected … (Participant No. 21; rescuer, man, 38 years old)

Negligence of vulnerable groups. Neglecting the vulnerable groups was another subcategory extracted from the study. Results showed that certain groups had not been considered in distribution of goods, nor had their specific requirements been considered. Women, children, the elderly, and people with disabilities were among the groups who, according to the participants, were greatly neglected. This issue led to intensification of social confusion and delayed rehabilitation. Rescuers had the best views and experiences concerning negligence of those subgroups. One rescuer (a man, 26 years old) explained,

> … we were in a village to distribute basic hygiene items to women. However, women felt embarrassed to receive them from us, because we were men. Finally, at our return, many of them thanked us and stated that these items were more important than rice, food and etc.

And one of the female participants said,

> … most of the times, the relief goods were distributed in a way that we couldn't get them. Because men were stronger and could get more goods, but women, the elderly, and the others who did not have such power couldn't get them. Sometimes we were embarrassed … (Participant No. 5; resident, woman, 42 years old)

Focus on reconstruction and negligence of rehabilitation. Another subcategory extracted was focus on reconstruction and negligence of rehabilitation. People, authorities, and the recovery services focused solely on reconstruction with little attention to rehabilitation needs of the people. This led to intensification of social uncertainty and confusion in the earthquake-stricken areas, as explained by one of the participants:

> … the government has done its best to reconstruct the houses, and this has not been completed yet and most of the houses are incomplete; but, unfortunately, no attention has been paid to agriculture, husbandry, employment, and mental and social issues. (Participant No. 19; resident, man, 66 years old)

Even the people from earthquake-stricken areas concentrated only on reconstruction and did not attend to other aspects of recovery - just like the government. In this regard, one of the participants said,

> … but here, people are merely preoccupied with the houses. If the houses are completed, people can get back to their normal life. We are only busy with reconstructing our homes and working. Therefore, we cannot do anything else. We urge the government only to take the reconstruction seriously. If they complete our houses, we will be relaxed … (Participant No. 10; resident, man, 52 years old)

Vulnerability due to wasted assets. Wasting of people's critical assets was another derived issue that led to social vulnerability. Specifically, some people were forced to sell their cattle at low prices after the earthquake, because they did not have adequate barns and shelters necessary to take care of their livestock. These assets were very important in getting back to normal life later, yet most of the people were not able to make up for the loss even after some months because they could not afford the higher prices of cattle.

One of the participants explained the situation as follows:

> … since infrastructure had been destroyed and there were no facilities, people were forced to sell their cattle. Many people came here and bought our assets. We waited a month for a barn and when they didn't build it, we were forced to sell our cattle. Dealers took advantage of our situation and we were forced to sell our assets at a very low price … (Participant No. 2; resident, man, 28 years old)

Loss of properties and assets caused people to think the earthquake had seized everything they had, and consequently, they lost all hope of getting back to normal life. Conditions had changed in such a way that shortly after the earthquake, people thought they could not revive their lost assets. For example, one participant said,

> … of course we want to get back to our home; but how? We do not have anything. I had 10 cows and was forced to sell them in those days, and now having those cattle is like a dream, which cannot be achieved. These small houses and high prices do not let us buy even two cows … (Participant No. 14; resident, man, 34 years old)

Social uncertainty and confusion

Social uncertainty and confusion were explored as being among the main categories regarding social issues after an earthquake. Results indicated that social uncertainty was one of the main social concerns of people after disasters, which were directly or indirectly hidden in most of the emerged codes. People reported that they were living with significant uncertainty about the future. They experienced a significant decline in perceived ability to recover and, thus, their motivation plunged. This category had four subcategories: (1) disruption of roles and responsibilities, (2) employment uncertainty, (3) influx of nonnative population, and (4) reconstruction without considering the culture. The subcategories are described next.

Disruption of roles and responsibilities. One of the concepts related to the social consequences of disasters was disruption in social roles and responsibilities. For example, one of the groups that received some new roles in addition to their routine roles was women. One participant (a 52-year-old man) explained the situation as follows:

> Our women have difficulties and problems. They had more problems and now that's going to be worse. They have to take care of their kids and help us to reconstruct the ruined; we have problem in supplying drinking water and they have to walk a long way in the cold weather to fetch water. They have to warm water with these pans to take shower; they had no such problems before the earthquake.

The disruption of social roles in other categories, including men, have also been reported:

> … It has been long time; we are trying to construct our home. We like to get back to our routine jobs, but we cannot do agriculture and any other jobs before building the house.

Employment uncertainty. From participants' viewpoints, one of the social aspects which is influenced by disaster is employment. One of the participants (a 34-year-old man) described the situation as follows:

> … in winter, we wove rugs and carpets. It was our seasonal job. But they are ruined. Now we need a job to make money to get back to our ordinary life. We have some skills, but the situation is not prepared for using the skills and restoring the job.

Another participant (a 30-year-old man) reported the condition of returning to work after the disaster as follows:

> After that I had no hope and motivation to go back and continue. The earthquake took everything from me. My house was destroyed. I became an unemployed person.

Disasters left people in uncertainty and affected their ability and motivation. One of the participants explained his situation as follows:

> … before the earthquake we were all busy with our everyday life. We knew what to do, where to go, what we were looking for … but despite this long period after the earthquake, we just spend days and nights and think about all of our troubles. We feel that we do not know what we are doing, where we are going, and finally what will happen to us. We are tied up in these troubles and unfinished affairs. Our Houses are ruined; agriculture and husbandry are destroyed. Finally, we will be forced to leave here. (Participant No. 8; resident, man, 40 years old)

The influx of nonnative population. Earthquakes usually lead to decline in population of the stricken area, but in some cases we have seen an increase in population after the earthquake. In this study, the influx of nonnative people and also those who reside only seasonally in that area was another issue complained about by the participants. One of them described the situation as follows:

> … for example, before the earthquake we were about 90 households and now we are 120 households. Some of them lived here permanently and the rest who lived seasonally came and settled here only to receive services. Ironically, most of those who have completed the foundations of their house are not permanent residents. While I have been always living in this village, I have not yet completed the foundation of my house … (Participant No. 16; resident, woman, 29 years old)

Another participant expressed the situation as follows:

> One of our main problems was the migration of people from different areas to here. Unfortunately, after the earthquake, people from different regions came here to get the services distributed by the government and organizations. As these newly coming people have had a relationship with permanent residents, so we could not object to their presence … (Participant No. 3; resident, man, 57 years old)

Reconstruction without considering the culture. The fourth subcategory, the lack of consideration for local and cultural requirements of reconstruction, led to many unforeseen problems in recovery.

One of the important aspects of reconstruction which caused dissatisfaction and uncertainty in people's lives was neglecting the requirements of rural houses. In other words, architecture and the interior design of the reconstructed houses did not meet the needs of rural people in earthquake-stricken areas. They were shelters suitable for towns and in many cases had no bedrooms, barns, stables, and so on. The reconstruction itself was very important and satisfying for people, but lack of attention to the cultural aspect of reconstruction was one of the main concerns which led to social uncertainty. A participant argued that they had particular problems with those houses:

> We need large rural houses. We usually have many guests and this size is insufficient. They have built us civic houses. These houses maybe suitable for county dwelling clerks, but is not enough for us. The houses they built have no bedrooms, and no place for carpet weaving. Husbandry and agriculture have been also neglected. As you enter the village these houses look beautiful, but if you put yourself in my place you will see these houses are like a cage … (Participant No. 14; resident, man, 34 years old)

Ignorance of local social capital

An important aspect of disaster recovery and the return to normalcy is that survivors need to be active participants in the process of disaster recovery. Self-efficacy is important in psychological health, but when people are not included in their recovery, their sense of self-efficacy can be substantially undermined. The following subcategories emerged out of our analysis: (1) top-down paternalistic approach, (2) undermining of trust, (3) undermining of social networks and self-centering, (4) inefficiency of social institutions, and (5) social cohesion and division.

Top-down paternalistic approach. Results strongly support the idea that even in minor issues of recovery, people were not asked for their ideas and input, nor were they asked to participate in reconstruction and other aspects of rebuilding. Most of the plans were based on a top-down approach. It caused people to feel dissatisfied and to not have the sense of ownership and belonging, regardless of the efforts in trying to help them. In this regard, one of the participants said,

> … only during the first days after the earthquake people helped each other, and then we just received relief goods and people played no role. We were all waiting for the Red Crescent and other institutions to come and help us … (Participant No. 9; resident, man, 60 years old)

Another participant explained the situation as follows:

> … the situation is not like before at all. They only built us some 60 sqm houses and now they want us to go and live in them. We have to tolerate this situation, but have no sense of ownership to these houses. These houses cost us a lot and we were forced to sell everything (to complete the construction of houses) … (Participant No. 11; resident, woman, 58 years old)

Undermining of trust. Another extracted subcategory was undermining of trust. For various reasons, a kind of distrust was formed between the earthquake-stricken people and the government, and also between benefactors and the government before and after the disaster. According to the participants, these conditions paved the way for confusion and social uncertainty:

> … if the government had nothing to do with us and just had provided us with benefactors' reliefs, we would have had no problem and everything would have been good. The government seized all the money and relief goods of benefactors' and gave us some loans in turn. Instead of enjoying an aid from the

> government, I am now in debt and I have to give a loan of 250 million Rls back to to the government. (Participant No. 15; resident, man, 50 years old)

In addition, there was another kind of distrust between benefactors and the government that led to special problems; in fact, the donations were distributed by benefactors and these distributions were neither targeted nor organized. A participant described the situation as follows:

> … We must accept the facts that many people do not trust government agencies. However, why not to trust is another matter. In fact, the government agencies should consider why people tend to directly aid and distribute the donated goods by themselves. It is necessary to survey why they do not deliver their aids to the government agencies … (Participant No. 21; psychologist, man, 38 years old)

In addition to the abovementioned problem, benefactors tend to act upon emotions and sometimes are affected by ostensible arrangements of affected area and the people. One of the participants described the situation as follows:

> Unfortunately, benefactors treat quite emotionally so that they deliver their aids to the easy-to-reach villages or people who pretended to need much more aid. In Iran, in the early stage of disaster recovery management, aids of donors and organizations responsible for disaster management are like a flood. They suddenly come and goes, and if it is not effectively managed, that can led to waste of aid. (Participant No. 20; resident, man, 27 years old)

Undermining social networks and creating self-centering. The third subcategory of social capital ignorance was the undermining of social networks and creation of self-centering. According to some participants, this matter was a significant obstacle to community effectiveness and a potential successful return to normal life:

> … during the first days after the earthquake, people helped each other and they especially rescued many victims by helping each other. Unfortunately, as time passed and especially during the reconstruction of houses and receiving relief goods, people just thought of themselves and tried to get more goods … (Participant No. 7; resident, man, 41 years old)

Inefficiency of local nongovernmental social institutions. According to the results, inefficiency of the nongovernmental social institutions had left the government alone with the responsibility of recovery and caused various problems for people who were trying to get back to normal life. Inefficiency of institutions such as local councils and associations caused challenges for people in providing assistance and communicating with governmental institutions. From the viewpoint of participants, intermediary institutions could facilitate the rescue efforts, make them more goal-oriented, and prevent financial waste. Furthermore, it is noteworthy that competency of intermediary institutions is also an important factor; if people do not trust them or if they are incompetent, then their effectiveness is lost. One of the participants explained the situation as follows:

> … in some areas we don't have any intermediary institutions that play an active role in post disaster recovery and in other areas there were problems in relation between people and these institutions. From my viewpoint, since the recovery efforts should be mainly done by these people and their systems, their competency is important. Their incompetency was one of the problems in some areas which made recovery more difficult and goods distributions more inequitable … (Participant No. 18; resident, woman, 49 years old)

Social cohesion and social division. Another extracted subcategory that emerged was a social phenomenon of social cohesion and social division in some areas. Through in-depth interviews, focus

group discussions, and observations, the researcher pursued this issue at various times in the study setting. The issue was that in one area, the earthquake and its ramifications forced some residents to part with their previous (now demolished) houses and build new ones in places that were somehow distanced from the ex-village fabric. This matter has caused some social alienation and division within the once-integrated village. Even some close relatives were forced to stay in the ex-village and form new social networks, but ruined buildings made them upset and annoyed.

A participant described it clearly as follows:

> … In one village about 80% of the buildings had been destroyed and 20% remained safe. Those who lost their buildings completely migrated to a new location and others were forced to stay in the old village. This condition caused a state of social division among the village residents and interestingly enough both groups had a sense of loneliness … (Participant No. 22; health worker, man, 44 years old)

In another area, the situation was reversed and a new state of social cohesion was formed among the affected people so that the two initially separated villages merged and formed a new integrated village after the earthquake. It is noteworthy that reconstruction of this village, in comparison, was somehow better and faster:

> … before earthquake, Valiloo (name of village) was made up of 2 distinct parts called Up and Down Villages, but 15 months after the recovery phase the residents of these two villages denied their previous location and claimed to be integrated. Meanwhile, before the earthquake, they were strongly proud of their independence, and even in some cases conflicted with each other. (Participant No. 27; community recovery service provider, man, 42 years old)

Discussion

The current study has evaluated the main social issues that emerged after a significant earthquake in some rural areas of Iran. In this regard and by analyzing the viewpoints of earthquake survivors and the disaster experts dealing with rehabilitation, the study has provided a much needed perspective of the most important social issues happening during recovery processes. The key concepts explored were social vulnerability, social uncertainty, and ignorance of the local social capital that greatly prolonged the rehabilitation process, thereby causing people to suffer from uncertainty and confusion.

Social capital can be conceptualized as social connections between people occupying homogeneous networks, across heterogeneous networks and organizations, and with those of higher status and power (Putnam, 2001). Accordingly, our findings also indicated that the failure to engage the community in recovery strategies and efforts was another reason for the emergence of social issues in post-disaster recovery. Due to negligence of governmental relief and recovery organizations in using public participation, and also the inefficiency of local social institutions, affected people felt a reduced sense of community belonging, greater dissatisfaction, and more dependency on government assistance. These results are compatible with those of similar studies (Davidson et al., 2007; Nakagawa and Shaw, 2004).

Our study results are consistent with Buckland et al.'s (1999) and Nakagawa's (2004) studies in which they have concluded that communities with dense social networks demonstrate a better response to disasters and subsequent rehabilitation. Although the context and social environment determine the consequences of disasters in communities, the participants in this study also placed more emphasis on the role of some factors such as social networks and social support as the protective factors.

It is important to note that many recovery policies may influence the community, and can either facilitate or undermine social integrity. In other words, it seems that the management of disaster

recovery has a crucial role in the emergence of social cohesion and division. The results of our study showed some interesting cases of such changes to social integrity. It seems that the main reason for such a phenomenon was the speed and quality of reconstruction. Effective recovery management, especially regarding reconstruction, has a critical impact. This matter merits more attention in future recovery or research efforts.

'Vulnerability' is seen as a central concept in understanding the condition that makes a hazard a disaster. Social vulnerability refers to the features of a person or group and their situation that influence their capacity to anticipate, cope with, resist, and recover from the impacts of a natural hazard (Wisner et al., 2004). Our findings indicated that economic and social situations of the people before the earthquake had a great impact on the quality and speed of recovery. These results are in line with those of other studies (Ahern and Galea, 2006; Ramakumar, 2008; Vakis et al., 2004). In fact, disasters led to exacerbation of pre-existing inequalities, and also have effects on receiving the services.

The existence of a systematic plan for prevention of assets waste is crucial, and ignorance of this issue, due to lack of income, may lead to financial distress and vulnerability. Financial distress also occurs as a result of (1) compulsory sale of assets, properties, and livestock at low prices immediately after the earthquake and (2) failure to restore them due to increase in their prices later.

Zahran et al. (2009) concluded that domestic violence could increase after disasters. Such an issue was not mentioned by the present study's participants. The authors think that such issues need to be studied in future with relevant methodologies. Gender is an important variable among social factors; disaster research has indicated that women are in general more vulnerable to disasters (Enarson et al., 2007). In this study, we also found that there were problems and limitations in providing services for women and other vulnerable groups. Due to the lack of awareness or insensitivity to the needs of these groups, they were greatly underserved, which led to higher social vulnerability. Taboos or social prohibitions on women's health and physiological issues and behavioral norms of obligatory compliance can exacerbate the health problems of young women in disasters. For example, during the Bangladesh floods in 1998, as teenage girls had no access to a private place or even clean water to wash themselves and their underwear, they had to use a contaminated wet cloth and supplies, and consequently, they were afflicted with some skin diseases (World Health Organization (WHO), 2002). In this study, such difficulties and restrictions on access to these services were reported by women, and they were ashamed of receiving the services.

It is a very interesting result that all governmental and lay people focused only on reconstruction and were negligent of rehabilitation. The current study indicated that rebuilding of houses and infrastructures was a main precondition for the reconstruction of the other spheres of post-disaster recovery. Delays in the process of rebuilding led to delays in social, psychological, and economic aspects of recovery. The factors of speed and quality of reconstruction were specifically identified as the core problems. These findings were similar to those of other studies (Barakat, 2003; Lindell and Prater, 2003).

Disaster recovery plans are considered as a way to reduce social uncertainty. Lack of a comprehensive plan for effective recovery after disasters will facilitate social uncertainty. It seems that disasters led to disruption in social roles and responsibilities. This issue was highlighted in our study. Social roles and responsibilities are a set of expectations and social obligations that society expects individuals to carry out (based on their status and position). In critical conditions after disasters, disturbances happen in these areas and can bring about more social consequences. Pyles (2007) has noted that restoring jobs and businesses after a disaster are vital factors in preventing long-term complications in vulnerable groups. In the present study, the participants have emphasized providing employment infrastructures as a necessary factor in order to return to normal life. However, the importance of local job recovery is also highlighted in this study.

Disasters lead to changes in the context of affected populations. The influx of people from different areas to receive the services and facilities was one of the issues complained about by the participants. It seems that this problem emerged from a lack of comprehensive information about the demographics of the people and residents of each district.

Conclusion

Social issues are hidden but very important in disasters. Paying attention to this area paves the way for people to return to normal life, to social development after a disaster, and also to enhance social resilience. Hence, it is recommended that policymakers change their viewpoints about post-disaster recovery from a linear and outcome-oriented approach to a continuous, prolonged, and comprehensive process. As a main part of disaster recovery plans, it is also necessary for policymakers to consider the social issues that are explored in this study.

The expansion of trained social workers to use participatory approaches in social work in the aftermath of disasters, such as a community based approach, can reinforce social capital in vulnerable areas and provide enabling and increasing resiliency among vulnerable people. Social workers also facilitate the protection of vulnerable groups in order to prevent the neglect of the needs of these groups. Social workers should contribute to the promotion of the notion that rehabilitation should precede reconstruction, but still most of the people and disaster management affiliated organizations in Iran believe that rehabilitation amounts to a set of governmental interventions aimed merely at reconstruction. According to the results of this study, this approach has to be reformed and considered in future policies of rehabilitation as a social and developmental process. Rehabilitation should be considered as a comprehensive process to support affected communities with their maximum representation while aiming to achieve the highest degree of independency and sufficiency for the affected people.

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Author biographies

Fardin Alipour is an Assistant Professor at the Department of Social Work at the University of Social Welfare and Rehabilitation Sciences; and Secretary of Social Work Interventions in the disasters committee at the Iran Association of Social Work.

Hamidreza Khankeh is Associate Professor in the Department of Health in Emergency and Disaster and Nursing at the University of Social Welfare and Rehabilitation sciences; and Researcher in Department of Clinical Science and Education, Karoliska Institutet, Stockholm, Sweden.

Hussain Fekrazad is Assistant Professor in Department of Social Work at the University of Social Welfare and Rehabilitation Sciences.

Mohammad Kamali is Associate Professor in the Department of Rehabilitation Management at the Medical University of Iran.

Hassan Rafiey is a Psychiatrist and Assistant Professor in the Department of Social Welfare at the University of Social Welfare and Rehabilitation Sciences.

Shokoufeh Ahmadi is a PhD student in the Department of Health in Emergency and Disaster at University of Social Welfare and Rehabilitation Sciences.