Social Capital in Post Disaster Recovery

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ABSTRACT

Background: Some disaster-stricken people in Iran are still experiencing challenges of resuming normal life several months after the incident. However, there is not sufficient and in-depth understanding of the factors affecting the complex process of post disaster recovery in Iran and rural areas in particular. This study aimed to explore the status of social capital in the process of returning to normal life after an earthquake.

Materials and Methods: This study was conducted with the qualitative content analysis method. A total of 20 persons from the earthquake-stricken areas and 7 people with relevant scientific background and expertise were selected via purposeful sampling. Data were collected through semi-structured interviews, focus group discussions, and field notes from August 2013 to January 2014. Data collection continued to achieve data saturation. Data analysis was based on qualitative content analysis.

Results: The ignorance of social capital was one of the most significant concepts explored in the process of "back to the normal life" after earthquake. This concept was divided into 4 subcategories of 1) top-down paternalistic approach, 2) undermining of trust, 3) undermining of social networks and self-centering, 4) inefficiency of the social institutions, and 5) social cohesion and social division.

Conclusion: This study showed that many reason for ignoring social capital in the process of "back to the normal life" after earthquake should be considered in the recovery management. Policy-makers are suggested to consider a comprehensive plan for using and enhancing the social capital in the process of returning to normal life after earthquakes. This plan can provide an opportunity for rehabilitation after disasters.

Keywords:

Keywords: Disaster, Rehabilitation, Iran, Social capital

1. Introduction



atural or man-made disasters are significant encounters for human societies around the world and can cause devastating social, medical, and public health damages [1]. Iran is highly vulnerable to different types of natural disasters such as earthquake, flood, and droughts. On average, 2000 to 3000 people lose their lives annually due to such incidences (UNIS-DR, 2013). Rudbar-Manjil earthquake (1990), Bam earthquake (2003), Golestan flash floods (2000-2005), Lorestan earthquake (2006), Azerbaijan earthquake (2012), and Bushehr earthquake (2013) were the most destructive disasters during recent decades in Iran.

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People's lives after disasters have not been sufficiently studied [2, 3]. Most of the studies in this field have focused on short period of disasters and long-term process was completely overlooked. However, getting back to normal life after a disaster can be as important as pre or during the disaster stages. Although many experimental and theoretical works have been conducted on the consequences of disasters, an in-depth understanding of rehabilitation and what exactly forms this process is still evolving [4]. Besides, the concept of rehabilitation cannot be evaluated out of the complicated economic, political, and social systems [5, 6].

To evaluate the challenges of rehabilitation process, it is necessary to have a multi-dimensional look rather than a one-dimensional perspective. Nevertheless, many studies conducted in this field have not had a comprehensive look at this process, and usually focused only on one aspect such as psychological interventions after disasters (e.g. stress disorders) [7-10], physical injuries [11, 12], the role of social capital in reconstruction [13], and the role of community participation in physical reconstruction [14]. Therefore, the majority of the plans in the field of rehabilitation were not comprehensive. Furthermore, there are limitations in social approaches, and they usually do not properly consider the range of physical and social long-term needs of societies after the disaster.

Disaster recovery is not only about building houses but also the reconstruction of the whole community as a safer place. To contribute each member of the community in this collective action, social capital is a crucial need. Social capital is a useful concept that seeks to explain the required characteristics for effective and democratic community-based management. Social capital is conceptualized in the light of social connections among the members of homophile networks (bonding social capital), across heterogeneous networks and organizations (bridging social capital), and to those with higher status and power (linking social capital) [15]. Social capital is widely recognized as a multi-dimensional concept. Kapucu extended social capital application to disaster management, in which he found that predisaster social capital would ensure effective interagency collaboration and partnerships between the public and nonprofit sectors during emergency response [16].

Several studies have also found that social capital facilitates the disaster preparedness, response, and recovery. Bolin and Stanford (1998), for instance, explored how community-based organizations aided in recovery after the 1994 Northridge, California earthquake. Some stud-

ies surveyed the role of social capital in reconstruction [13, 17].

Currently, there is no comprehensive study on the subject of returning to normal life after disasters in Iran. Previous works have referred to instructions for mental health interventions [18], evaluated disaster relief problems and management inconsistencies [19-22], and identified problems of healthcare at the time of disasters [23-25]. Most of these studies have not comprehensively evaluated the status of social capital in the process of "back to the normal life" after disasters in Iranian society based on the experiences and perceptions of the victims and survivors by qualitative approach. Therefore, despite a growing body of literature about disasters in Iran, inadequate attention has been paid to the experiences and perceptions of disaster recovery workers and affected people. Thus, the stage of resuming to the normal life after a disaster in Iran has not been adequately studied. In this regard, we decided to investigate the social capital in this stage. We aimed to explore the status of social capital in the process of returning to normal life after an earthquake in Iranian context.

2. Materials and Methods

A qualitative approach using content analysis (Graneheim approach) was considered appropriate for our study. In this method, information from participants is gathered directly without any pervious hypothesis. Produced knowledge is based on unique viewpoints of participants. Codes and categories are derived by the inductive process, conceptually ordered considering properties, and their dimensions develop [26].

Participants were selected by a purposeful sampling method according to their firsthand experience or expertise in earthquake and willingness to participate in the study. Open sampling with maximum diversity for selection of our participants has been observed. This process continued until data saturation was achieved. In the current study, 20 people with direct earthquake experience and 7 people with scientific experiment and expertise were selected for the interviews and 2 focused group discussions were held to complete the data collection. In the first group discussion session, 11 local survivor attended, and in the second session, 10 disaster recovery expertise's participated.

Semi-structured interviews, focused group discussions, and field notes were used to collect data. Data collection was done by main researcher who had lived in earthquake-stricken area for a period of 18 months

(August 2013 – January 2014). Before the interviews, by introducing himself and expressing the aim of the study, the researcher obtained the informed written and orally consent of the participants. The interviews lasted 30-60 minutes; each interview began with a broad question that was asked about participants' experiences of events they had observed. Probing was performed according to the reflections of each participant concerning of life after disaster such as perception about reconstruction process, services and their needs; facilitators and barriers of providing services; role of social networks; and organization of disaster recovery. In addition, two sessions of focused group discussion were held to complete the primary information; one with earthquake-affected people and one with expertise involved in recovery. The focus groups were run by the researcher and local assistances and attempts were made to facilitate discussions and involving all sides. They were used as complementary data and for trustworthiness as well.

The present study was performed based on the qualitative content analysis. Systematic stages were followed and simultaneous analysis was undertaken. First, recorded interviews were transcribed verbatim and prepared for content analysis. Then, the transcribed text was read several times for familiarization, before coding. Codes and categories were extracted by an inductive process via open coding, line by line reading of the text, and devoting relevant codes to it. Then, categories were emerged by constant comparison. Peer check and constant comparison were performed to reach a consensus in coding. In fact, data analysis was performed simultaneously with the data collection. After completion of coding and ensuring of the accuracy of coding, concepts were identified and developed.

3. Results

The mean age of the participants was 41 years; 21 participants were male; 3 participants were single and the rest married; the literacy level ranged from illiterate to postgraduate qualifications. In the first group discussion session, 11 earthquake-stricken people (7 men, 4 women) attended and in the second session 10 recovery workers (5 men, 5 women) participated.

Results of the current study indicated that the ignorance of social capital was one of the most important concepts explored in the process of "back to the normal life" after earthquake. An important aspect in disaster recovery and return to normalcy is that survivors need to be active participants in the process. 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. Our analysis indicated subcategories of 1) top-down paternalistic approach, 2) undermining of trust, 3) undermining of social networks and self-centering, 4) inefficiency of the social institutions, and 5) social cohesion and social division.

Top-down paternalistic approach

Results of the current study strongly confirms that even for minor issues, the affected people were neither asked for their ideas and input nor for participation in reconstruction and other aspects of rebuilding. Most of the plans have been performed following a top-down approach. It caused people to feel dissatisfied and not to have the sense of ownership and belonging regardless of the several efforts that were made for them. In this regard, one of the participants (participant No. 9, resident, man, 60 years) said:

"Only during the first days after the earthquake, people sometimes 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."

Another participant (participant No. 11, resident, woman, 58 years) explained the situation as bellow:

"The situation was not like before at all, they only built us 60 m2 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 buy the houses)."

Undermining of trust

Another extracted subcategory was "undermining of trust." A kind of distrust was formed between the earthquake-stricken people and the government, and also between benefactors and the government for various reasons before and after the disaster. According to the participants, these conditions paved the way for confusion and social uncertainty. Participant No. 15, a 50-year-old, man and resident recalled:

"If the government did nothing and just gave us the benefactors' reliefs, we would have no problem and everything be good. The government seized all the money and relief goods of benefactors, and instead gave us loans. Instead of receiving an aid from the government, I am in debt of the government for a loan of 250 million Rls."

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 not targeted and organized. One example of this issue was mentioned by participant No. 21, a 38-year-old psychologist.

"We must accept the facts that many people do not trust the government agencies. So why do not trust is another matter. In fact, the government agencies should track why people directly help earthquake-stricken areas and distribute aids by themselves. It is necessary to study why they do not deliver their aids to the government agencies."

One of the community disaster recovery workers (Participant No. 20; resident, man, 27 years) described the situation as follows:

"Unfortunately, benefactors behave quite emotionally, so that they deliver their aids to the villages or those who pretended to receive aids. In Iran, in the early stage of disaster recovery management, aids of donors and responsible organizations are like a flood, which suddenly comes and goes, and if it is not effectively managed, it can led to the waste of the aids."

Undermining social networks and creating selfcentering

The third subcategory of social capital neglect was the undermining of social networks and creation of self-centering that according to some participants was a significant obstacle in their ability to gain social effectiveness and a successful return to normal life. Participant No. 7, a 41-year-old man and resident said:

"During the first days after the earthquake, people helped each other, especially they rescued many victims by helping each other. Unfortunately, as time passed, especially during the reconstruction of houses and receiving relief goods, people just thought about themselves and everyone tried to get more goods."

Social cohesion and social division

Another extracted concept was social cohesion and social division. The researcher pursued this issue at various time intervals in the study setting through in-depth interviews, focus group discussion, and observations. In some villages several factors led to a social division. Participant No. 22, a 44-year-old man and health worker said:

"In one village about 80% of the buildings had been destroyed and 20% remained safe. Those who lost their buildings completely moved to a new location and others were forced to stay in the old village. This condition caused a social division among the village residents, and interestingly both groups felt loneliness."

The researcher's observations in the various time intervals confirmed that some close relatives were forced to stay in the old village and form the new social network, but the ruined building made them upset and annoyed.

In some other cases, the situation was reversed and the state of social cohesion was formed among the people; probably due to better and faster reconstruction, the two initially separated villages merged after the earthquake. Participant No. 27, a 42-year-old man and community recovery service provider said:

"Before earthquake, Valiloo (name of village) was made up of 2 distinct parts called Up Valiloo and Down Valiloo, but 15 months after the recovery phase, the residents of these two villages denied their previous locations and claimed to be integrated. Meanwhile before the earthquake, they strongly asserted on their independence, and even in some cases quarreled with each other."

Inefficiency of local nongovernmental social institutions

According to the results of this study, inefficiency of the nongovernmental social institutions had left the government alone with the responsibility of restoration, and caused various problems for returning people to their normal lives. Inefficiency of institutions such as 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 works, make them more goal-oriented, and prevent a lot of financial wastes. It is noteworthy that competency of intermediary institutions is also an important factor. If people do not trust them or if these institutions are incompetent, then their effectiveness is lost. One of the participants (Participant No. 18; resident, woman, 49 years) from the earthquake-stricken areas explained the situation:

"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 the relation between people and these institutions. From my viewpoint, since the rescue work should be mainly done by these people and their systems, their competency is important. One of the problems in some areas was their incompetency which made rescue work and goods distribution more difficult."

4. Discussion

The current study evaluated the social capital in the process of returning to normal life after an earthquake in rural areas of Iran. It is the first time that this topic is studied based on a qualitative and comprehensive approach. Therefore, the study has provided a unique image of significant social capital challenges in this process by analyzing the viewpoints of earthquake victims and also the experts who are dealing with the rehabilitation stage. The main phenomenon found in the current study was the ignoring of social capital.

Results of the current study showed that a set of factors, conditions, and facts such as "top-down recovery approach," "undermining the trust," "self-centering and social networks," "social cohesion and social division" prolong rehabilitation process with various consequences.

Failure to use public participation capacity was one of the main reasons for self-centering and undermining the social networks on the way back to the normal life after earthquake. Ppeople were not informed of the process of rehabilitation and this damaged people's sense of belonging, increased their dissatisfaction, and made them more dependent on the government assistance. These results are compatible with previous studies [13, 14].

Social capital is viewed as an asset to foster recovery efforts. In contrast, a top-down design does not define a role for grassroots networks, and local social capital is not considered to be beneficial for recovery. Ignorance of social capital in these areas slows down the "back to the normal life" process after earthquake for both people and the authorities. The key issue is how the government is taken steps to strengthen social capital. Many studies have emphasized top-down disaster recovery approach and suggest this approach for effective recovery [27, 28].

Berke and Beatley (1997) contend that the design of external aid programs has a moderating influence on local coping capacity, i.e. social capital. A bottom-up approach to external aid design puts affected communities in the driving seat [29]. In this study, we found that negligence of this approach was one of the significant

problems in the process of back to the normal life after earthquake.

Social cohesion and division were the most significant findings of this study. Apparently, the management of disaster recovery has a crucial role in emerging of this social phenomenon. Effective recovery management, especially regarding reconstruction has a critical impact.

According to the results of the current study, an effective rehabilitation program needs a comprehensive management system that first of all should be approved and understood by people, intermediary, governmental institutions, and other beneficiaries. In addition, an effective rehabilitation program needs a common understanding. Considering the complicated and multi-dimensional, dynamic, and long-term nature of getting back to the normal life, a rehabilitation program will have the maximum effectiveness when it involves the maximum rate of people's participation. Rehabilitation comes before reconstruction, but still most of the people and disaster management affiliated organizations in Iran believe that rehabilitation is a set of governmental interventions aiming merely at reconstruction. According to the results of the current study, this approach has to be reformed and considered in the further 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 and aiming people to achieve the highest degree of independency and self-sufficiency.

A core and often neglected element of disaster recovery has been community development phase. A review of the literature showed that social work has been less involved in this phase than in traumatic stress intervention and the coordination of relief efforts. Therefore, we suggest that social workers engage more in this process because the disaster recovery process is a reflection of mission of social work.

Furthermore, policy-makers are recommended to change their viewpoints about rehabilitation from a linear and outcome-oriented approach to a continuous, prolonged, and comprehensive process. It is also necessary for policy-makers to consider social capital and related issues raised in the current study as a main part of disaster recovery plans, and especially they must change their glasses and see social capital as a main part of the disaster recovery programs not as a luxury or unnecessary issue.

This study is one of the few studies on recovery and rehabilitation process that employed the social approach. However, data were collected from a limited sample of individuals using purposeful sampling and the findings cannot be generalized to other locations that do not have similar environmental, cultural, and socioeconomic characteristics.

5. Conclusions

Social capital is an important factor in recovery process and local authorities could increase their understanding of this process. The present study is a start for clarifying and describing the challenges of social capital in the process of resuming normal life after earthquake. Further studies on this process, including the perspectives of more affected people and policy-makers are needed. Also, further investigation of the results of this study is recommended for developing strategies to improve disaster recovery systems.

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References

- Guha-Sapir D, Vos F, Below R, Ponserre S. Annual Disaster Statistical Review 2011: The Numbers and Trends. Brussels: Centre for Research on the Epidemiology of Disasters (CRED); 2012, pp: 1-52.
- [2] Chang SE. Urban disaster recovery: a measurement framework and its application to the 1995 Kobe earthquake. Disasters. 2010; 34(2):303-327.
- [3] Olshansky RB, Johnson LA, Horne J, Nee B. Longer view: Planning for the rebuilding of New Orleans. Journal of the American Planning Association. 2008; 74(3):273-287.
- [4] Abramson DM, Stehling-Ariza T, Park YS, Walsh H, Culp D. Measuring individual disaster recovery: A socio ecological framework. Disaster Medicine and Public Health Preparedness. 2010; 4:S46-S54.
- [5] Bates FL, Pelanda C. An ecological approach to disasters. In: Dynes RR, Tierney KJ, Editors. Disasters, collective behavior, and social organization. New York: University of Delaware Press; 1994, pp: 145-159.
- [6] Edwards MLK. An interdisciplinary perspective on disasters and stress: The promise of an ecological framework. Sociological Forum. 1998; 13(1):115-132.

- [7] Stuber J, Resnick H, Galea S. Gender disparities in posttraumatic stress disorder after mass trauma. Gender Medicine. 2006; 3(1):54-67.
- [8] Tang CS. Trajectory of traumatic stress symptoms in the aftermath of extreme natural disaster: A study of adult Thai survivors of the 2004 Southeast Asian earthquake and tsunami. The Journal of Nervous and Mental Disease. 2007; 195(1):54-59.
- [9] Kumar MS, Murhekar MV, Hutin Y, Subramanian T, Ramachandran V, Gupte MD. Prevalence of posttraumatic stress disorder in a coastal fishing village in Tamil Nadu, India, after the December 2004 tsunami. American Journal of Public Health. 2007; 97(1):99.
- [10] Kar N, Mohapatra PK, Nayak KC, Pattanaik P, Swain SP, Kar HC. Post-traumatic stress disorder in children and adolescents one year after a super-cyclone in Orissa, India: exploring cross-cultural validity and vulnerability factors. BMC Psychiatry. 2007; 7:8.
- [11] Trout D, Nimgade A, Mueller C, Hall R, Earnest, GS. Health effects and occupational exposures among office workers near the World Trade Center disaster site. Journal of Occupational and Environmental Medicine. 2002; 44(7):601-605
- [12] Brackbill RM, Thorpe LE, DiGrande L, Perrin M, Sapp JH, Wu D. Surveillance for World Trade Center disaster health effects among survivors of collapsed and damaged buildings. Morbidity and Mortality Weekly Report: Surveillance Summaries. 2006; 55(2):1-18.
- [13] Nakagawa Y, Shaw R. Social capital: A missing link to disaster recovery. International Journal of Mass Emergencies and Disasters. 2004; 22(1):5-34.
- [14] Davidson CH, Johnson C, Lizarralde G, Dikmen N, Sliwinski A. Truths and myths about community participation in post-disaster housing projects. Habitat International. 2007; 31(1):100-115.
- [15] Putnam R. Social capital: Measurement and consequences Canadian Journal of Policy Research. 2001; 2:41-51.
- [16] Kapucu N. Interagency communication networks during emergencies boundary spanners in multiagency coordination. The American Review of Public Administration. 2006; 36(2):207-225.
- [17] Buckland J, Rahman M. Community based disaster management during the 1997 Red River Flood in Canada. Disasters. 1999; 23(2):174-191.
- [18] Ahmadi Kh. [Principals and methods for psychological intervention in disasters (Persian)]. Military Medicine Journal. 2004; 6(1):45-51.
- [19] Araghizadeh H, Saghafinia M. [The survey of treatment management in crisis. A review of Bam earthquake experiences (Persian)]. Military Medicine Journal. 2003; 5(4):259-268.
- [20] Khankeh HR, Fallahi M, Ranjbar M, Ahmadi, M. [Health management in disasters with emphasis on rehabilitation (Persian)]. Journal of Rehabilitation. 2008; 9(2):66-73.
- [21] Kammali M, Moradi M. [The delivery of rehabilitation services to earthquake injured peoples of Gillan & Fars provinces in Iran (Persian)]. Social Welfare Journal. 2003; 3(11):147-162.

- [22] Aghabakhshi H. [The charter of social work for natural disasters (Persian)]. Social Welfare Journal. 2003; 3(11):131-146.
- [23] Khankeh HR, Khorasani Zavareh D, Johanson E, Mohammadi R, Ahmadi F, Mohammadi R. Disaster Health-Related Challenges and Requirements: A Grounded Theory Study in Iran. Prehospital and Disaster Medicine. 2011; 26(3):151-8.
- [24] Djalali A, Khankeh HR, Ohle'n G, Castre'n M, Kurland L. Facilitators and obstacles in pre-hospital medical response to earthquakes: a qualitative study. Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine. 2011; 19:30.
- [25] Khankeh HR, Nakhaei M, Masoumi G, Hosseini M, Parsa-Yekta Z, Kurland L, et al. Life recovery after disasters: A qualitative study in the Iranian context. Prehospital and Disaster Medicine. 2013; 28(6):573-579.
- [26] Corbin J, Strauss A. Basics of qualitative research: Techniques and procedures for developing grounded theory. 3rd ed. Los Angeles: Sage; 2008.
- [27] Berke P, Beatley T. After the hurricane: Linking recovery to sustainable development in the Caribbean. Baltimore, MD: Johns Hopkins University Press; 1997.
- [28] Paton D. Preparing for natural hazards: the role of community trust. Disaster Prevention and Management. 2007; 16(3):370-379.
- [29] Bolin R, Stanford L. The Northridge earthquake: Community-based approaches to unmet Recovery Needs Disasters. 1998; 22(1):21–38.