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Social Capital and Post Disaster Recovery: Evidences from Rural Areas of Iran

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ABSTRACT

Background: Growing evidence is indicating that some of the disaster affected people are facing challenges for resuming normal life several months after an earthquake. However, there is not sufficient in-depth understanding of the factors that effect on complex process of post disaster recovery in Iran as one of the most disastrous country in the world and rural areasas a particular setting. Objective: This study aims to explore the status of social capital in the process of returning to normal life after earthquake in rural areas of Iran. Results: The ignorance of social capital was one of the most significant concepts that explored in the process of back to the normal life after earthquake, which were categorized into five subcategories of 1) A top-down paternalistic approach, 2) Undermining of trust, 3) Undermining social networks and creating self-centering, 4) Social cohesion and social division,5) Inefficiency of local non-governmental social institutions. Conclusion: This study showed that there are many reason for ignoring of social capital in the process of back to the normal life after earthquake that should be considered in the post disaster recovery management. Policymakers are suggested to consider a comprehensive plan for using and enhancement the social capital in the process of return to normal life after earthquakes. This can provide an opportunity for development after disasters.

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INTRODUCTION

Natural or manmade disasters are significant encounters for human societies around the world and have the potential for devastating social, medical, and public health consequences (Guha-Sapir *et al.*, 2012). Iran is highly vulnerable to different types of natural disasters such as earthquake, flood, and droughts. In average, 2000 to 3000 people lose their lives annually due to such incidences (UNISDR, 2013). The Rudbar-Manjil earthquake (1990), Bam earthquake (2003), Golestan flash floods (2000-2005), Lorestanearthquake(2006), Azarbaijan earthquake(2012), and Bushehr earthquake(2013), were the most destructive disasters during recent decades.

People's life after natural events and disasters has not been studied sufficiently (Chang, 2010; Olshansky, et al., 2008). Most of the studies in this field have focused on short period of disasters and long term process was completely missed. 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 of understanding rehabilitation and what exactly forms this process is still evolving (Abramson, et al., 2010). It is also suggested that the concept of rehabilitation cannot be evaluated out of the complicated economic, political, and social systems (Bates, et al., 1993; Edwards, 1998). Hence, to evaluate the challenges of rehabilitation process, it is necessary to have a multi-dimensional look rather than a one-dimensional perspective. Nevertheless, many of the studies conducted in this field have not had a comprehensive look at this process, and have usually focused only on one aspect such as psychological interventions after disasters such as stress disorders after the disaster (Stuber, et al., 2006; Tang, 2007; Kumar, 2007; Kar, 2007), physical injuries (Trout, et al., 2002; Brackbill, et al., 2006), the role of social capital in reconstruction (Nakagawa and Shaw, 2004), and the role of community participation in physical reconstruction

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(Davidson, *et al.*, 2006). Consequently, the majority of the plans in the field of rehabilitation are not comprehensive, there are limitations in social approaches, and usually do not consider the variable range of physical and social long-term needs of societies well after the disaster has occurred(Dash, 2009).

Disaster recovery is not only about building houses but the reconstruction of the whole community as a safer place. To mobilize 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 egalitarian community-based management capacity. Social capital is conceptualized in the light of social connections among the members of homophiles network (bonding social capital), across heterogeneous networks and organizations (bridging social capital) and to those with higher status and power (linking social capital) (Putnam, 2001). Social capital is widely recognized as a multi-dimensional concept. Kapucu has extended social capital's application todisaster management, in which he found thatpre-disaster social capital ensures effective interagencycollaboration and partnerships between the public andnon-profit sectors during emergency response (Kapucu, 2006).

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 studies surveyed the role of social capital in reconstruction (Nakagawa, *et al.*, 2004; Buckland, *et al.*, 1999).

There is currently no comprehensive study for returning to normal life after disasters in Iran. Previous works have referred to instructions for mental health interventions (Ahmadi, 2004), evaluated disaster relief problems and management inconsistencies(Araghizadeh, et al., 2003; Khankeh, et al., 2007; Kammali, et al., 2003; Aghabakhshi, 2003), identified problems of healthcare at the time of disasters (Khankeh, et al., 2011; Djalali, et al., 2011; Khankeh, et al., 2013). 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 caused by natural hazards in Iran, inadequate attention has been paid to the experiences and perceptions of disaster recovery workers and affected peoples. Consequently, the stage of resuming to the normal life after a disaster in Iran has not been adequately studied, and it was 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.

Methodology:

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, and conceptually ordered considering properties and dimensions are developed (Strauss and Corbin, 2008).

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 used. 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 has lived in earthquake stricken area for period of 18 months (Aug 2013 – Jan 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 simultaneously 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 through 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 and continually with the data collection. After completion of coding and assuring from accuracy of coding, concepts were identified and developed.

Results:

Among the 27 participants of this study, the mean age was 41 years, 21 participants were male, three participants were single and the rest were married, and the literacy level ranged from illiterate to postgraduate qualifications. In the first group discussion session, 11 earthquake-affected people (7 men, 4 women) attended and in the second session 10 recovery workers (5men, 5 women) participated.

Results of the current study indicated that the ignorance of social capital was one of the most important concepts that explored in the process of back to the normal life after earthquake. An important aspect in disaster recovery and the 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: 1) A top-down paternalistic approach, 2) Undermining of trust, 3) Undermining social networks and creating self-centering, 4) Social cohesion and social division,5) Inefficiency of local non-governmental social institutions.

A Top-Down Paternalistic Approach:

Results of the current study strongly support the idea that even regarding the minor issues in 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 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 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..." (Participant No. 9; resident, man, 60 years).

Another participant explained the situation as bellow:

"...the situation is not like before at all, they only built us 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 buy the houses)..." (Participant No. 11; resident, woman, 58 years).

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 the participants these conditions paved the way for confusion and social uncertainty:

"...if the government did nothing and just gave us the benefactors' reliefs, we had no problem and everything was 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 for a 250 million Rls loan to the government' (Participant No. 15; resident, man, 50 years).

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 statement is:

"...We must accept the facts that many people do not trust to government agencies. So why do not trust is another matter. In fact, the government agencies should track why people directly aid to earthquake-stricken areas and to distribute aids 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).

One of the community disaster recovery workers described the situation as follows:

"Unfortunately, benefactors treat 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, that suddenly come and goes, and if it is not effectively managed, it can be led to waste the aids" (Participant No. 20; resident, man, 27 years).

Undermining social networks and creating self-centering

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 to navigate a successful return to normal life:

"...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..."(Participant No. 7; resident, man, 41 years)

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 caused to a social division:

"...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 to a social division among the village residents, that interestingly both groups felt loneliness ..." (Participant No. 22; health worker, man, 44 years)

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 that remained from the past 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:

... 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 strongly asserted on their independence, and even in some cases conflicted with each other (Participant No. 27; community recovery service provider, man, 42 years).

Inefficiency of Local Non-Governmental Social Institutions:

According to the results of this study, inefficiency of the non-governmental 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 the lots of financial wastes. 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 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 ..."(Participant No. 18; resident, woman, 49 years).

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; 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 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 up to down recovery approach, undermining the trust, self-centering and social networks, social cohesion and social division lead to prolong rehabilitation process and also have a 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. Therefore people were not informed of the process of rehabilitation and this reduced people's sense of belonging, increased their dissatisfaction, and made them more dependent on the government assistance. These results are compatible with those of the previously performed studies (Davidson, *et al.*, 2006; Nakagawa, *et al.*, 2004).

Social capital is viewed as an asset to foster recovery efforts. In contrast, a top-down design does not include 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 speed of back to the normal life after earthquake and also recovery process for both people and the authorities. The key issue is that how the government in the field of recovery is taken steps to strengthen social capital. Many studies have emphasized on top-down disaster recovery approach and suggest this approach for effective recovery (Berke, *et al.*, 1997; Paton, 2007).

Berke and Beatley (1997) contend that the design of external aid programs has a moderating influence on local coping capacity and, by implication, social capital. A bottom-up approach to external aid design puts affected

communities in the driving seat (Bolin, et al., 1998). In this study, we found that negligence of this approach was one of the most problems in the process of back to the normal life after earthquake

Social cohesion and division were one of the most significant finding of this study. It seems that the management of disaster recovery has a crucial role in emerging of this social phenomenon. Effective recovery management, especially regarding to 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 and governmental institutions, and other beneficiaries. In addition, an effective rehabilitation program also 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 is prior to reconstruction, but still most of the people and disaster management affiliated organizations in Iran believe that the 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 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, so suggest social workers have a more engagement in this process because it seems the disaster recovery process is a reflection of mission of social work.

Hence, 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 your Lens and see social capital as a main part of the disaster recovery programs not as a Luxury and unnecessary issue.

Conclusion:

This study is one of the few studies on recovery and rehabilitation process that has 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.

The present study marks a starting point for clarifying and describing the challenges of social capital in the process of resuming normal life after earthquake. Further study on this process is needed. Studies including the perspectives of more affected people, policy-makers, and local authorities could yield increased understanding of this process. There is a need for further investigation of the results of this study to develop strategies for improving disaster recovery systems.

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