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Men's Health and Livelihood Status in Disasters: A Qualitative Field Study in Eastern Azerbaijan, Bushehr, and Mazandaran Provinces in Iran

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Abstract

Background: While men also have a number of disadvantages at the time of disasters, little attention is paid to their status. The term "invisible men" refers to ignoring men's status in different catastrophes and not investigating their post-disaster challenges as much as it should. The current study was conducted to fill this gap by exploring the factors concerning men's status in the recent natural disasters of Iran.
Objectives: The current study aimed at exploring the aspects of affected men's status as well as eliciting the factors of men's coping capacity after the recent disasters of Iran.
Methods: A qualitative content analysis using in-depth unstructured interviews and field observations were employed to explore the status of damaged men. A total of 22 participants, 18 affected people and 4 key informants were interviewed using the purposive sampling method. The conventional content analysis using the Graneheim approach was performed to analyze the transcribed interviews.
Results: Three main categories and 6 subcategories were extracted from the data. The main categories included men's livelihood, health, and capability. All categories had their specific subcategories integrated based on discrete features in a given category.
Conclusions: Providing supportive livelihood plans and entrepreneurship projects with the focus on economical independency of damaged men are highly recommended in the disaster-stricken regions. In addition, local health centers can provide some essential public health services for free and encourage affected men to use such services. Further research is required to identify other probable aspects of men's health status and capabilities related to wider cultural settings.

Keywords: Disasters, Health, Men, Gender, Content Analysis, Iran

1. Background

Natural disasters remain a major and increasing health problem worldwide (1). The massive impact of disasters is disproportionately felt by people living in hazard-prone regions (2, 3). Gender is a social factor, which can aggravate or decline the negative consequences of natural disasters in damaged settings (4). Distinct roles played by women and men and their different needs, responsibilities and capacities result in dissimilar effects of disasters on them (5). Accordingly, mainstreaming gender approach to disaster management plans and activities started since 1990; however, many relevant projects, done in the disaster fields, are pertinent to women's challenges in disasters (6-9). While men also have a number of disadvantages at the time of disasters, little attention is paid to their status by scholars. men are not always dominant, strong, and superior in disastrous situations (10). That is, sometimes gender systems become negative for men even more than those of women during disasters.

Some studies reported the negative impacts of disasters on men. For example, adult men were more affected by floods than adult women in Hunan province, China, because of more relief work and engagement in dangerous situations (11). In addition, in Canada and USA, more men are injured by lightning and other weather related hazards (12). After Bam Earthquake in Iran, more men than women were affected by severe physical attacks and such psychological disorders as anxiety and depression (13). In Aceh, Indonesia, more than 60% of the patients hospitalized for tetanus were men due to their responsibility to search for the missing and dead bodies (14). After Hurricane Andrew

in USA, the family provider and protector men encountered some kinds of feelings of incompetence (15).

A deficiency standing out in the above-mentioned literature was the fact that men's roles and status in disasters were not considered in disaster literature (16). Men's challenges after disasters were not considered by researchers with the exception of a small number of comparative studies related to post-disaster mental disorders of men.

The term "invisible men" refers to ignoring men in different catastrophes and not investigating their post-disaster challenges as much as it should (12). Although disasters have adverse effects on men and put them in the risk of death, injuries, and other destructive consequences, little is known about men's lives in the context of Iran and similar regions. The current study was conducted to fill this gap by exploring the factors concerning men status in the disaster-stricken regions of Iran. A qualitative approach using content analysis was considered suitable for the investigation because experiences and perceptions of the people, who encountered post-disaster situation, were necessary to conduct the current field research (17).

2. Objectives

The current study aimed at exploring the aspects of affected men's status as well as eliciting the factors of men's coping capacity after the recent disasters of Iran.

3. Methods

3.1. Design

Since direct experiences and perceptions of the affected people without any previous hypothesis were necessary to explore the men's status factors in disasters, a qualitative approach using content analysis was employed to conduct the current study. That is, the obtained knowledge was based on the participants' points of view. Codes, subcategories, and categories were derived by the inductive process.

3.2. Setting

The current study was performed on 3 provinces of Iran including East Azerbaijan, Bushehr, and Mazandaran affected by the earthquakes and floods in 2012 and 2013. These disasters ruined more than 300 citizens and caused the physical injuries to more than 3000 people living in the affected areas (18-20). Since these disasters occurred more recently than others, there was more accessibility to the target population.

3.3. Participants

Survivors living in the destroyed regions as well as a number of key informants were approached for interviews. The experience of at least 1 natural disaster and willingness to participate in the study were the inclusion criteria. The key informants consisted of 1 sociologist, 1 disaster public health specialist, 1 health management scholar, and 1 humanitarian official from UNFPA (United Nations Population Fund) in Iran. All key informants had academic education related to disaster health management and experiences of different natural disasters. Based on the saturation principles, data saturation was reached after 21 interviews, but 1 additional interview was done by the researchers to make sure that no new concept was developed. A total of 22 participants, 18 affected people as well as 4 key informants were interviewed using the purposive sampling method. The research data were gathered in collaboration with health officials living in the affected regions. That is, a list of damaged households with their addresses and contact information was provided by them; therefore, access to the participants was possible during data gathering.

3.4. Data Collection

Data were collected through unstructured in-depth interviews that took place in the affected regions and key informants' offices in 2015. The interviews were done by the first author with the academic education on disaster and emergency health and had conducted several qualitative study projects on gender and disaster subjects. Each interview lasted 60 to 90 minutes. The researcher asked the participants to describe their experiences and perceptions on the recent natural disasters (flood or quake). Probing was performed to encourage the respondents to describe their experiences and feelings in detail. All interviews were conducted, recorded, and transcribed in Farsi. Field observation, as a complementary method for data collection, was applied in the fields.

3.5. Data Analysis

The conventional content analysis using Graneheim approach (21) was used for data analysis conducted through several steps. First, reading the interviews for a couple of times to get a sense of the whole. Second, dividing the text into meaningful units as well as abstracting and labeling the condensed meaningful units in the form of codes. Finally, the extracted codes were compared based on differences and similarities and sorted into 6 subcategories and 3 categories. At this stage, the tentative categories were discussed by 2 researchers and revised to identify the final concepts. The MAXQDA software

(VERBI GmbH; Berlin, Germany) was applied to analyze the transcribed interviews.

3.6. Trustworthiness

Credibility, dependability, and confirmability were used as the criteria to achieve data trustworthiness. Credibility was provided by the triangulation strategies such as methodological triangulation (interviews and field observations) and data triangulation (affected people and key informants) triangulation. Peer check and member check were applied to obtain credibility as well. A comprehensive and detailed description about the whole methodological process of the study provided both confirmability and dependability of the research. Although it is difficult to demonstrate that findings of the qualitative studies are applicable to other populations and contexts, a full description of contextual factors provided the transferability of the study (22).

3.7. Ethical Consideration

The study was approved by the ethical committee of Iran University of Medical Sciences, Tehran, Iran (code number: 3943). Based on the written consent form, all participants were informed about the confidentiality of their names in all the reports, transcripts, and field notes. In addition, the participants were free to leave the interview session at any time.

4. Results

The gender distribution of participants was 91% for the men group. The age of the participants ranged from 17 to 60 years. The educational level of the participants ranged from illiteracy to academic education (Table 1). Men's livelihood, health, and capability were extracted as the main categories (Table 2). A summary of all categories and subcategories were explained:

4.1. Men's Livelihood

Men were considered as the main responsible persons to make money for their family subsistence. Consequently, all affected participants and key informants believed that livelihood issues were the most important challenge for men in disasters. This problem increased for the group of men who were jobless before disasters. This category had two subcategories of joblessness and homelessness.

4.1.1. Joblessness

Men believed that disasters destroyed their current jobs in the affected regions and demolished such community resources as farmlands, gardens, livestock, and weaving places. Destruction of the essential physical structures and facilities necessary for their jobs made them jobless. A participant said:

"We have financial problems. I myself have no job, just a carpet, which will take one or two years to be sold below cost" (P9).

Wages of part-time jobs were not enough for the livelihood of the damaged households. The men with part-time jobs were not satisfied with the income and were unable to pay for the expenses after the disasters. A man with a part-time job, as a worker, mentioned:

"I'm working part-time to make money, which is not enough even for the daily costs of the family and we're getting poorer everyday" (P10).

4.1.2. Homelessness

The destruction of the house and its furniture was considered as one of the serious livelihood challenges for men. Some men declared that providing a suitable settlement for the family was even more serious than their joblessness. One affected man said:

"My home and its furniture were totally destroyed. I had nothing to make my family satisfied. The result of my 30-year efforts suddenly vanished" (P6).

men did not benefit from any financial safety mechanisms such as insurance before disasters. Some men expressed their regret and believed that they should have tried to be covered by one type of disaster insurance. In total, the most important priority of all affected men was making money through finding a new job opportunity and paying for the daily costs of the family.

4.2. Men's Health

Health status of the affected men was not paid much attention at the time of disasters. In addition, the participants declared that their health condition was not as important as their post-disaster livelihood challenges. The health status of men included 2 subcategories of physical and mental health.

4.2.1. Physical Health

Regarding stressful environments in the disaster-stricken regions, men increasingly got involved in quarreling and struggling with others. These kinds of aggressive behaviors made them more vulnerable. men were almost risk-takers and in some cases they showed the heroic dangerous actions during rescue and relief phases; hence, they

accidentally put their lives at risk. A key informant stated that:

"Whenever men were involved in difficulties after the Bam Earthquake, they physically had more vulnerability because they showed heroic actions. That is, men got nervous and quarreled physically sooner than other groups" (P15).

Based on the field-based data, a number of men had heart attack after being affected by flood. They could not tolerate the horrible situation of their families and passed away at the time of disasters. Furthermore, men had spent a lot of time outside the temporary settlements to remove debris, reconstructing their own houses, and making money for their family livelihood. All men stated that physical health status was not their priority and they cannot consider this issue during post-disaster stage. However, no primary healthcare or diagnostic health examination was provided for the men group in the affected regions.

4.2.2. Mental Health

Some men got disappointed and stopped trying to overcome their post-disaster challenges. The loss of their relatives and the destruction of their capitals placed them in dangerous psychological conditions. Field observations and interviews disclosed that some of the affected men felt empty and unimportant in a way that they could not do anything useful and valuable for their families or even community. A number of them preferred to die instead of living this incompatible life with poverty. A participant said:

"What is the benefit of this life? I would like to die, but not to live like this;... I have lost everything (with upset and nervous face)" (P12).

Some young men, who lost their fathers, experienced a kind of insecurity and disappointment in the aftermath of disasters. A few affected men even preferred they had lost their mothers rather than their fathers. They believed that the father was a strong supporter for them just like a strong wall. One of the participants mentioned:

"During the first days after the disaster I said that everything is finished; now my father is not alive, nothing is in its own place for me as a single person and my brothers who are married. Dad was a wall, a sturdy one" (P1).

4.3. Men's Capability

men benefited from the properties, which could help them and their family to effectively respond to the hurtful consequences of disasters. This category included 2 subcategories of providing support for family and coping capacity.

4.3.1. Providing Support for Family

Affected men rescued members of the family at the time of the earthquakes or floods. During the recovery phase, men protected their families, especially women, in the temporary settlements. Some affected men were careful about their own behaviors or words at the time of their interview to keep the family's dignity and self-esteem in the community. One of them did not let the researcher record his interview. He explained:

"I have 3 young daughters. If my voice is heard somewhere tomorrow, they will feel ashamed and criticize me about doing this interview" (P7).

men tried to secure their family environment and keep strangers away from entering their own settlement. A young men said:

"Now there is an unsuitable situation without any private space. This makes me cautious. Whenever you fall asleep in your home, someone is likely to open the door and come in" (P8).

4.3.2. Coping Capacity

Based on the interviews and field observations, men had some special capacities to deal with the unfortunate circumstances. For example, quick reactions of men at the moment of earthquakes or floods had kept them alive. men benefited from considerable physical abilities, which saved them in different ways. In addition, they had substantial physical power to save people in the search and rescue phases and assisting affected persons. They helped others by carrying heavy objects, moving the injured, evacuating and cleaning damaged places, and distributing relief resources. During the recovery phase, men played an important role to reconstruct damaged physical structures such as houses, schools, mosques, and stores. A participant described the situation as follows:

"men were good physical forces in previous disasters and if they are given plans, they can do a lot of things, at least in this culture, they can be counted on as aid forces" (P14).

5. Discussion

The current study was the first attempt to explore the affected men' status in Iran. The findings indicated that men' health and livelihood difficulties, which increased their post-disaster challenges, were ignored in the disaster-stricken regions. On the other hand, although men benefited from some capabilities to cope with negative effects of disasters, they were not always as capable as they were expected by their families or communities.

Affected men faced joblessness and the status of being homeless after disasters. All damaged men stated that

Table 1. Demographic Information of the Participants Based on Gender, Age, Education, and Place of Residence

Participants' Information	N	N (%)
Gender		
Men	20	91
Women	2	8
Age, year		
17 - 30	4	19
31 - 45	8	36
46 - 60	10	45
Education		
Illiterate	3	14
Primary education	10	45
Diploma	5	23
Academic education	4	28
Place of residence		
Urban	12	55
Rural	10	45

Table 2. Main Categories and Subcategories Extracted from Data

Main Category	Subcategory	Codes (Examples)
Men's livelihood	Joblessness	Destruction of agricultural tools
		Death of livestock
	Homelessness	Living in conex
		Living in unfinished buildings
Men's health	Physical health	Heart attack during flood
		Getting injured during search and rescue
	Mental health	Feeling emptiness
		Getting nervous
		Depression
Men's capability	Providing support for family	Family security
		Family dignity
	Coping capacity	Quick survival reaction
		Physical power

livelihood difficulties were the worst consequences of disasters for them. The financial effects of disasters on widowers were reported in the case of Indian Ocean Tsunami (23). Additionally, after Hurricane Andrew in USA, the affected men as the providers and protectors of their families encountered some kinds of inadequacy and failure (15). men are usually brought up to play the role of the household head. That is, they should learn their roles from young age. Thus, it seems that increased livelihood challenges and unexpected poverty after quakes or floods could not be tolerable for most men living in the affected regions. This issue may put affected men in the risk of physical and mental health challenges after disasters and result in inappropriate health conditions in the affected communities.

The current study findings revealed that men had encountered health problems in 2 aspects including physical

and mental health. In addition, local healthcare systems paid little attention to health status of affected men after disasters. The post-disaster physical and mental health conditions of damaged men were reported by some authors (13, 24, 25). One study showed that men, in general, had more health problems than women, especially mental health disorders. In addition, men are more infected in the case of HIV/AIDS (10). Some young men who lost their fathers in disasters faced a kind of insecurity and depression. There is no published literature on this factor. It may imply that death of fathers as breadwinners puts survivors into the poverty, which may be combined with other social, physical, and environmental effects of disasters. Young men who are culturally expected to be strong and supportive may incur more damage in the absence of their fathers. In total, although men did not care about their physical and mental health disorders and insisted on considering post-disaster life as a worthless one, healthcare providers, especially at local levels, can provide them primary health services to prevent the incidence of various health disorders after disasters (26). That is, improving health status and life style of affected men can positively influence households and the whole community and reduce the risk of death, disease, and disability post-disasters.

Based on the current study findings, men had a number of capabilities including providing support for family and coping characteristics. Similar studies showed that men were more likely to stand in the front lines during an evacuation and to help with security and transportation in some affected communities (27-29). It may be considered that supportive roles of men can provide a safe space both for family and community after disasters. However, it may put them in the dangerous situation of quarreling or physical attacks or even killing others as well.

One limitation of the study was a language barrier in the affected regions of East Azerbaijan province in which Azeri is the native language. To overcome this limitation, 2 Azari native colleagues helped the researcher with translating Azeri into Farsi. Furthermore, the results may not be generalizable due to the small samples, which may not include the perceptions and experiences of all men affected by natural disasters.

5.1. Conclusion

Men's problems can be aggravated at the time of disasters and put them at the risk of death and diseases. Providing supportive livelihood plans and entrepreneurship projects with the focus on economical independency of damaged men are highly recommended in the disaster-stricken regions. In addition, local health centers can provide some essential public health services for free and encourage affected men to use such services. Furthermore, post-disaster mental disorders may be solved by benefiting from consulting psychologists working in local health centers. Further researches are required to identify other probable aspects of men's health status and capabilities related to wider cultural settings. Developing a valid and reliable tool to assess men's health status in disasters is suggested.

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