Challenges and Opportunities of Public Participation in Disaster Management Policies in IRCS

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Original Article

Abstract

INTRODUCTION: Considering the high number of incidents and disasters in Iran and the importance of the issue, this research investigates the challenges and opportunities of people's participation in the implementation of disaster management policies in the Iranian Red Crescent Society (IRCS).

METHOD: The research is applied in terms of purpose and mixed in terms of method. In the first stage, structured interviews were conducted with 20 experts and informants in the field of disaster management. Then, data was analyzed through content analysis and open coding, and components of challenges and opportunities were extracted using Maxquda software. Finally, a researcher-made questionnaire for challenges and opportunities based on the findings of the qualitative part was design and its validity and reliability using was confirmed by experts and Cronbach's alpha respectively and were distributed among 365 managers and employees related to disasters.

FINDINGS: According to the findings, in the qualitative section, the main challenges include coordination and organization, lack of people's participation in decision-making, conflict of interests, participation sustainability, level of knowledge and awareness, and resistance to change, as well as the opportunities include increasing efficiency and effectiveness, the use of local knowledge, strengthening the sense of responsibility, communication improvement, cost reduction and strengthening social solidarity. The results of quantitative part, showed that strengthening the sense of responsibility, use of local knowledge and communication improvement with an average of 11.86%, 10.38% and 9.46% respectively of the most important opportunities and conflicts of interest, the level of knowledge and awareness and coordination and organization with an average of 10.43%, 9.37% and 9.35% respectively are the most important challenges.

CONCULSION: The results showed that solving the challenges and strengthening the opportunities for people's participation will lead to the success and effectiveness of the implementation of the policies and will lead the society to the direction of prosperity, prevention of wastage of resources, casualties' reduction and sustainable development. Thus, it is suggested to develop educational programs, strengthen organizational structures, etc. in order to improve people's participation in disaster management.

Keywords: Public participation; Disaster management policies; Iranian Red Crescent Society (IRCS).

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Introduction

A crisis is an unprecedented event that doesn't give much time to prepare in advance. The effect of most crises, if not managed properly, can be harmful. There are different types of crises that are caused by internal and external factors. (1)

Disasters are very vital because they cause mental and physical damage to people and can affect people's work and income; therefore, public awareness and preparedness in dealing with disasters is necessary in order to minimize casualties from disasters. (2) It should be noted that more than 40 types of natural disasters have

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been found in the world, each of which is divided into several subcategories. At least 31 types of natural disasters are known in Iran, and statistically, Iran is among the 10 most vulnerable countries in the world. About 70% of the country's population is at risk of earthquakes and 50% is at risk of floods, and 90% of the population is at risk of both. (3)

The index of natural disasters in Iran is estimated at 6.8, and among natural hazards, earthquakes and floods have attracted more attention with indices of 9.6 and 6.4 (out of 10), respectively. One of the things that should be considered when natural disasters occur in today's world is the existence of different statistics of casualties and damages in similar disasters with the same extent and intensity. For example, an earthquake with a magnitude of 6.5 shook the city of Bam in Kerman province, which caused the death of more than 26,000 people and destroyed the entire city. However, in Japan, an earthquake with a magnitude of 8.1 Richter in an urban center of 10 million people left only 12 injured, which shows the role of planning and humanitarian measures in preventing human and financial losses during natural disasters. (4) Disaster risk management is a set of actions including planning, decision-making, accountability and operational activities at all levels. In addition, taking advantage of social capacities and

community participation before, during and after disasters is of considerable importance. (4)

Methods

This applied research is mixed and the required information was collected through library studies, internet searches, reading articles, books, magazines and other reliable scientific databases. In the qualitative stage, 20 experts, specialists, disaster management managers, operational commanders of the RCS, academic members who were somehow involved in disasters and had the necessary experience and scientific knowledge due to the special conditions of this field were selected and then data was collected through structured interviews (Table 1). Then, by analyzing the theme, texts and extracting the themes and implementing it in Maxquda software, the research components were identified based on the challenges and opportunities of public participation for the implementation of disaster management policies in the RCS.

In the quantitative part, a researcher-made questionnaire was designed based on the findings of the qualitative part with the aim of ranking the importance of the components and was distributed among 365 managers and employees related to disasters in a cluster method in different parts of the country (Table 2).

Table 1. Demographic information of the experts of the qualitative part of the research

Work place	Position	Compilations		Years of experience		Education	
		Article	*Book*	*20-30*	*10-20*	*PhD*	*MA*
Governor's office	Crisis manager	❋		❋		❋	
RCS	Director	❋			❋		❋
University	Faculty member	❋	❋	❋		❋	
University	Faculty member	❋	❋		❋	❋	
RCS	Operation commander	❋		❋			❋
RCS	Operation commander	❋			❋		❋
RCS	Operation commander	❋	❋		❋	❋	
Governor's office	Crisis manager	❋	❋			❋	
EMS	Director	❋	❋	❋		❋	
RCS	Director	❋			❋	❋	
RCS	Director	❋	❋		❋		❋
RCS	Faculty member	❋	❋	❋		❋	
RCS	Expert	❋	❋	❋		❋	
Governor's office	Crisis manager	❋	❋	❋		❋	
EMS	Director	❋	❋	❋		❋	
Law enforcement	Operation commander	❋		❋			❋
Fire department	Operation commander	❋			❋		❋

Table 2. Education and work experience of the respondents

Education	Percent	Frequency	Work of experience	Percent	Frequency
Diploma	15.1	55	Less than 3	14.8	54
Associate degree	21.4	78	9-3	27.9	102
BA	31.8	116	9-12	31	113
MA	19.7	72	12-15	18.9	69

	PhD	12.1	44	Over 15	7.4	27

Findings

In the qualitative part, data were systematically analyzed for content through structured interviews. After open coding, initial conceptual codes were carefully reviewed and summarized by combining information obtained from background literature and interviews.

In the next step, using theme analysis, the texts of the interviews were deeply examined and related themes were extracted. These themes are considered as the key elements of the research and then implemented and analyzed in Maxquda software. In this way, the different components of the research that investigated the challenges and opportunities of public participation in the implementation of disaster management policies in the IRCS were identified (Table 3).

The descriptive analysis of the quantitative part is reported in Table 4 and Figures 1 and 2.

Based on Table 5, the highest average is related to "strengthening the sense of responsibility" with an average of (11.86), which indicates the importance of this factor in disaster management improvement through public participation. Other items such as "use of local knowledge" (10/38), "communication improvement" (9/46), "cost reduction" (9/45), "strengthening social solidarity" (8/13) and "increasing efficiency and effectiveness" (42/7) are also among the most important opportunities respectively. However, "conflict of interests" is the most important with an average of (10.43) and other items such as "level of knowledge and awareness" (9.37), "coordination and organization" (9.35), "sustainability of participation" (8/98), "lack of people's participation in decision-making" (8/95) and "resistance to change" (7/12) are also among the most important challenges, respectively.

Table 3. Research findings in the qualitative section

	Components	Description
Opportunities	Increasing efficiency and effectiveness	People's participation leads to increasing efficiency and effectiveness in the implementation of disaster management policies, because local people based on their various skills and expertise can help better and know what actions are most effective in their community.
	Use of local knowledge	Local people have valuable knowledge and experience about their environment and community that can be used to make better and more accurate decisions and help identify vulnerable and safe areas.
	Strengthen the sense of responsibility	Participation in disaster management processes can strengthen people's sense of responsibility and social ownership and encourage them to participate more in other social fields. Religious and cultural teachings of the people play an effective role in strengthening the sense of responsibility and will strengthen their belief.
	Communication improvement	Public participation can help communication improvement between government institutions and society and increase trust and cooperation.
	Costs reduction	The use of local resources and volunteers can reduce disaster management costs and enable more efficient use of available resources.
	Strengthening social solidarity	Participating in collective activities for disaster management can strengthen social relations and increase solidarity between community members, which leads to the creation of support networks that help each other during disasters.
Challenges	Conflict of interest	There may be a conflict of interest between different groups and individuals, which can lead to problems and disrupt the process of implementing crisis management policies in the RCS.
	Coordination and organization	Organizing and coordinating between different people with different levels of knowledge and ability is difficult, and also creating efficient structures for managing public participation is a significant challenge.
	Sustainability of participation	It can be difficult to maintain the motivation and continuity of people's participation, especially in periods between disasters, and economic and financial conditions also have a significant impact on the sustainability of people's participation.
	Level of knowledge and awareness	Differences in the level of knowledge and awareness of people may make some of them unable to effectively participate in disaster management programs and activities.
	Resistance to change	Some individuals and groups may resist the proposed changes, making it difficult to implement new policies.
	Lack of people's participation in	Failure to pay attention to the opinions and needs of the people and popular expert forces in the process of decision-making and planning the implementation of disaster management policies reduces

decision making	participation.	

Table 4. Questionnaire of the quantitative part of the research

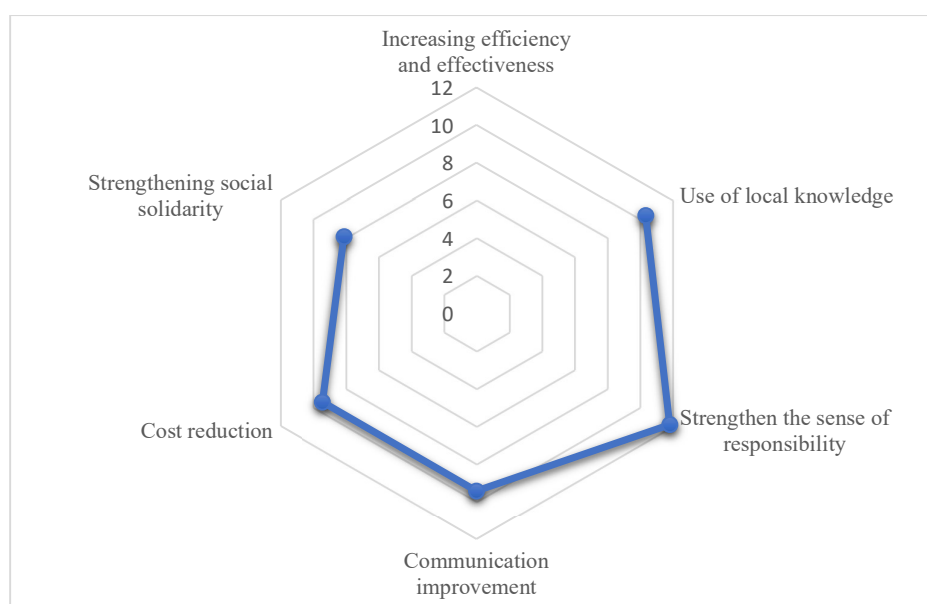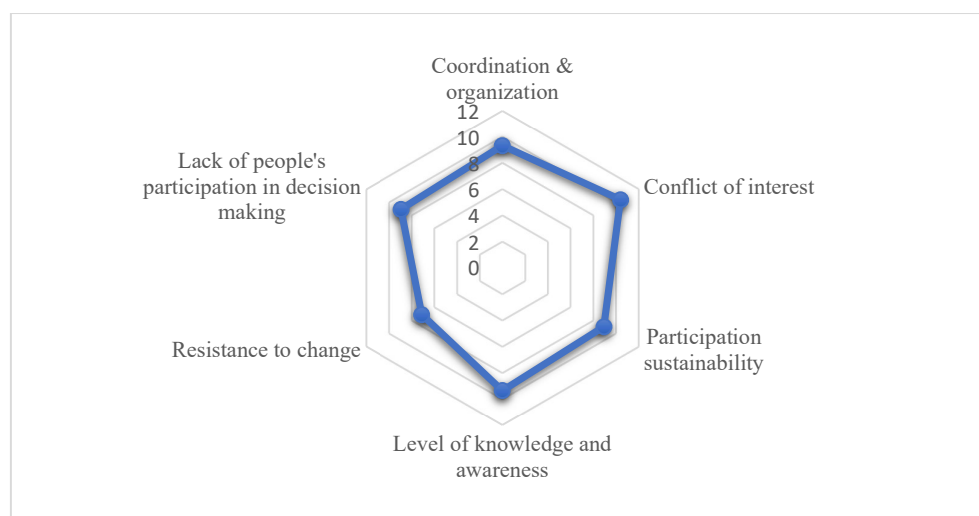|	Components	Questions
Opportunities	Strengthening the sense of responsibility	Participation in disaster management strengthens the sense of social responsibility. /Participation in crises encourage people to participate in other social activities. /Expanding the culture of responsibility increases efficiency during crisis.
	Use of local knowledge	Knowledge and experience of local people can be used in better and more accurate decisions. /The use of local knowledge allows better identification of risks and reduction of damages. /The use of local experience is essential in crisis management planning.
	Communication improvement	Public participation helps to improve communication between government institutions and people. /Strengthening communication between people and officials increases trust and cooperation. / The presence of strong communication networks can improve the process of informing during a crisis.
	Costs reduction	The use of local and voluntary resources leads to the reduction of crisis management costs. /People's participation makes more efficient use of available financial resources. /The use of local manpower reduces the costs of rescue and relief.
	Strengthening social solidarity	Collective activities in crisis management lead to the strengthening of social relations. /Participation in crises increases solidarity among members of society. /Social solidarity improves cooperation during crises.
	Increasing efficiency & effectiveness	People's participation increases the efficiency of the implementation of disaster management policies. /Local people know better what actions are most effective in their community. /The active presence of community members in crisis management leads to improved effectiveness.
Challenges	Conflict of interest	Conflict of interests between local groups may make the crisis management process difficult. /Conflict of interest can lead to problems and disputes during the implementation of policies. /Conflict of interest management is essential for successful crisis management.
	Level of knowledge and awareness	Differences in the level of knowledge between community members may reduce the efficiency of participation. /Training and raising public awareness are essential in crisis management. /Inconsistency in the level of awareness can prevent effective participation of people in crisis management.
	Coordination and organization	The lack of proper organizational structures can create a big challenge in crisis management. /Coordination between government institutions and people is critical for successful crisis management. /It is necessary to create appropriate structures for the organization of local manpower.
	Participation sustainability	It is difficult to maintain the motivation and sustainable participation of people over time. /People's short-term participation has negative effects on the effectiveness of crisis management. /Sustainability of partnership requires continuous planning and support.
	Lack of people's participation in decision-making	Not paying attention to people's opinions reduces their participation in crisis management. /People's participation in decision-making improves the results of crisis management. /Ignoring people's needs and opinions in decision-making is an important challenge.
	Resistance to change	Proposed changes in crisis management may face popular resistance. /Resistance to changes slows down the implementation of policies. / Planning to accept changes during crises is essential.

Figure 1. The average star diagram of the components related to the opportunities of public participation

Table 5. Descriptive statistics related to research components

Stv.D	Average	Challenges	Stv. D	Average	Opportunities
3.15	10.43	Conflict of interest	2.72	11.86	Strengthening the sense of responsibility
1.56	9.37	Level of knowledge and awareness	2.85	10.38	Use of local knowledge
2.80	9.35	Coordination & organization	2.73	9.46	Communication improvement
2.98	8.98	Participation sustainability	2.54	9.45	Costs reduction
2.68	8.95	Lack of people's participation in decision making	2.23	8.13	Strengthening social solidarity
2.44	7.12	Resistance to change	2.92	7.42	Increasing efficiency and effectiveness

Figure 2. The average star diagram of the components related to the challenges of public participation

Discussion and Conclusion

The results of the research showed that community participation acts as one of the key and influential factors in improving the implementation of disaster management policies. This finding is consistent with the results of previous studies such as Yuwanto et al. (2021), who stated that community participation can act as a negative moderator of the impact of communication, resources, position, and bureaucratic structure on the implementation of disaster risk reduction policies. In other words, in the absence or lack of people's participation, the implementation of disaster risk reduction policies will face serious problems (13).

Kanyasan et al. (2018) found that effective coordination and ownership among national DMC members significantly enhanced disaster risk reduction (DRR) activities and obstacles such as unclear regulations, weak monitoring system and lack of public and private participation can challenge the implementation of disaster management policies (14).

Khairilmizal et al. (2016) pointed out five levels of progress for the implementation of disaster management policies in Malaysia indicating the need for continuous improvements at the national and international levels. They especially emphasize the role of crisis management rules development, coordination of agencies and improvement of financial and operational resources (15).

Hu et al. (2021) shows that structural reforms and improved coordination between different levels of government and military and social partnership are necessary in disaster response. By examining the changes in local emergency management after two major earthquakes in China, this study confirms the importance of structural reforms and extensive community participation in disaster management (16).

In the present study, it was also found that

using local knowledge and strengthening the sense of responsibility can improve the implementation of disaster management policies. This finding is consistent with the results of Juma and Mbataru (2021) study which shows that policy content and monitoring act as determinants in the successful implementation of disaster management and shows that monitoring has the least and policy content has the most impact on the implementation of disaster management (17).

In addition, Abbasi et al. (2015) emphasize the importance of public support, accountability of officials, people's participation in decision-making and recognition of society's needs in the successful implementation of disaster management policies. Their findings show that the less contentious the political environment is, the more logical and realistic the policies will be and closer to implementation (6).

The results of the current research are also consistent with the findings of Torkian et al. (2022), who stated that structural, organizational and environmental factors such as inter-organizational coordination, regulations and policy implementers significantly affect the implementation of disaster management policies and play an important role in crisis management improvement (18).

In general, various researches, including this study show that the successful implementation of disaster management policies, special attention should be paid to public participation as well as to the improvement of management structures and processes. Improving coordination between governmental and NGOs, developing clear laws and regulations, and improving the level of public knowledge and awareness are among the measures that can help disaster management improvement. Finally, it is suggested to develop educational and awareness programs to increase public knowledge, improve organizational structures, and strengthen participatory decision-making processes. Because these actions lead to reducing costs and increasing efficiency and effectiveness in disaster management and ultimately help to strengthen the resilience and preparedness of the society against disasters.

The present research has examined the challenges and opportunities of public participation in the implementation of disaster management policies in the IRCS in two sections.

In the qualitative part, the main challenges were identified which show that for the effective implementation of disaster management policies, efficient structures, attention to people's opinions, conflict management, maintaining people's motivations, raising the level of public knowledge and awareness, as well as resistance management are needed. The identified opportunities show that public participation can lead to the overall improvement of the disaster management process and increase cooperation and social solidarity.

The results in the quantitative part showed that in evaluating the opportunities and challenges of public participation in disaster management, "strengthening the sense of responsibility" was identified as the most important opportunity, while "conflict of interest" was identified as the biggest challenge.

The innovation and distinction of this research compared to the previous researches is that in the field of crisis management researches have been done about people's participation, but in the RCS as one of the main custodians of rescue and relief in the country, which has a direct relationship with the people and society. The studies and researches conducted on the issue of challenges and opportunities of public participation in the implementation of disaster management policies in the IRCS are very limited. Therefore, knowing the opportunities and challenges in such research can not only have a direct impact on the performance of this NGOs, which is based on the presence of volunteers and people's participation, but also based on the inherent and organizational duty of the RCS in the field of implementation. Disaster policies that play the main role, people's participation can bring positive consequences in the society and finally reduce damages and waste of resources and lead the society towards sustainable development.

People's participation in disaster management is known as a key and necessary factor in reducing the effects of crises and increasing the resilience of societies. This partnership can play an effective role in different stages of crisis management, from prevention and preparation to response and reconstruction.

In order to improve public participation in disaster management, it is necessary to develop educational and awareness programs to increase public knowledge to establish organizational structures for more efficient coordination and organization and decision-making processes should be strengthened with the participation of people's opinions. In the following, it is

emphasized that mechanisms to identify and manage the conflicts of interest and motivational programs are necessary to maintain the motivation of public participation. In addition, the use of local knowledge and experiences, the development of effective communication channels between government institutions and the society, and the optimal use of local resources and volunteers to reduce costs. Finally, people's participation during disasters can not only help to reduce damages and losses, but can also lead to strengthen the spirit of the community and create a culture of preparedness and accountability.

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Conflict of Interests

The authors declare no conflict of interest.

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