édelem Tudomán

KATASZTRÓFAVÉDELMI ONLINE TUDOMÁNYOS FOLYÓIRAT

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A KATASZTRÓFÁKAT KÖVETŐ KÁRENYHÍTÉSEK KRÍZISKOMMUNIKÁCIÓS VONATOZÁSAI

Absztrakt

Jelen tanulmány PhD kutatásommal összefüggésben készült – mely az árvízi katasztrófákat követő kárenyhítések értékelésének módszertani kérdéseit tanulmányozza – és azzal foglalkozik, hogy vizsgálja a korábbi kutatásaimban elemzett társadalmi bizalom kríziskommunikációs kapcsolódási pontjait. A kommunikáció és a média hatásai a közvélemény alakulására vitathatatlanok. Ebből az állításból és a korábbi kutatási tapasztalataimból kiindulva fontosnak tartottam, hogy a katasztrófákat követő kárenyhítéseket koordináló BM Országos Katasztrófavédelmi Főigazgatóság és a vele kapcsolatban levő közszolgálati médiát reprezentáló Magyar Távirati Iroda (MTI) kommunikációs tevékenységének ide vonatkozó, releváns részeit illetékes szakemberekkel való interjú készítéssel (empirikus kutatás) feltárjam. Az általános témafelvezető és feltáró kérdéseken kívül fontos volt, hogy képet kapjak arról, hogy az említett szervezetek vizsgálják-e a kommunikációs tevékenységük társadalmi hatásait, vagyis, hogy a kríziskommunikáció milyen visszacsatolást eredményez a kárenyhítéssel érintett vagy a közvetve érintett lakosság körében. Ebben a cikkben röviden ismertetem a téma jelentősebb szakirodalmait és az említett interjúk összegző eredményeit.

Kulcsszavak: katasztrófa-kommunikáció, helyreállítás, empirikus kutatás, folyamatkoncepció

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CRISIS COMMUNICATION ASPECTS CONNECTED TO POST-DISASTER-RECOVERY

Abstract

This paper was prepared related to my PhD study, which studies the issues of evaluation methods for post-flood-disaster-recovery process and it aims to examine the crisis communication aspects connected to public confidence which was analysed in my previous study. The effects of media and communication on public opinion are indisputable. Starting from this statement and my previous experiences it was necessary to investigate the relevant parts of communication activities in the Hungarian responsible post-disaster-recovery coordination and management organisation (National Directorate General for Disaster Management, Ministry of the Interior) and public service media represented by Hungarian Telegraphic Office with interviewing their competent experts (empirical study). Besides the general conceptualization and exploration of questions it was important to gain information activities influences on the public, more specific what kind of feedbacks might be resulted in the disaster-prone areas (directly and indirectly affected population, as well) from their crisis communication activities. This article describes a short significant literature review about the topic and summarises results from the experts' interviews.

Keywords: disaster communication, recovery, empirical research, process concept

1. INTRODUCTION

By analysing crisis communication aspects my goal is to understand how it is implemented into the national post-disaster-recovery (PDR) process, it is even effective or not, there are either



missing steps or components that need improvement, and based on these experiences to increase the efficiency of PDR process.

The structure of literature review of this study adapts to the hypothesis that the main task of crisis communication linked to disaster management is to provide information to the public meanwhile considering the potential effects on public opinion.

During providing information the organization that is responsible for disaster management describes for example what the actual situation is, what civil activities should be or should not be realised, what is happing, etc. In the same time, several activities are started – e.g. sand bag relocation, donation, claims, etc. – and influence public opinion either positive or negative way, short- or long-term.

In this study, characteristics and goals of crisis communication are represented according to the facts mentioned above, and scientific papers that consider the indicated effects are analysed.

1.1. Disaster and media

For the purposes of this research it is relevant if under the term "crisis", "disaster crisis" is meant, namely hazard event or disaster event. Accordingly, during my research this meaning is used. As Tibor Dobson, Brigadier General of firefighters also said on the XXI. Annual Conference of Hungarian Hydrological Society: "*Disaster communication frequently identified as crisis communication, but these two terms do not have the same meaning. In very simple terms: every disaster is a crisis, but not every crisis a disaster.*" (Dobson, 2003)

Császi (1999), during presenting the media representation of disasters, mentions Gonzenbach's (1996) work to emphasise the newsworthy importance of disasters, which, according to the author, is more important than anything else. Due to this, in the technical language of media critics, news related to disasters called obstructive news because the potential of physical and moral importance almost imposes itself on the media.



The study of Fisher (1998) highlights that however during the examined period the frequency of disasters has increased, the media interest was even more enhanced. This increase was indicated by those reports, which were promoting the so-called "soft news material" based on interviews with victims, eyewitnesses or experts.

The special role of media is demonstrated by the fact, that the most researched topic of disastersociology is communication, because it has irreplaceable tasks in each phase of a disaster: informs, interprets and supports the distressed society emotionally and morally as well. (Fisher 1998; Nimmo 1985; Committee on Disasters and the Mass Media (CDMM) 1980; Walters *et al.*, 1989).

Reports of disasters in the media can produce negative or positive images (Chacowry, 2016) that can influence the perceptions of its audience (Wenger – Friedman, 1986; Vasterman, *et al.*, 2005). The media often tends to focus on the physical aspects of the event (Houston, 2012), and is known to imply dramatic account and myths that lead to fear and anxiety among affected victims (Wenger – Friedman, 1986; Vasterman *et al.*, 2005; Ali, 2013). Although, it has been found that the media can have a beneficial effect on the community by informing and educating local people, or communicating with them in the face of threat (Ghavamnia – Dastjerdi, 2013).

Bene (2010) also summarizes that the media has a great role in informing the public. The lack of information or inappropriate way of providing information may indicate conjectures, losses its reliability and the opportunity to influence public opinion and reaction to the required direction. In his point of view, because media in many cases only presents an alternative interpretation of reality to the public, the mentioned organizations should seek to present the information in an accurate, understandable and simple way.

The author describes that the media is a connection between the public and the organizations dealing with disaster-recovery, which means that it is important to have less physical and organizational distance between the person who realizes the recovery and the one who is responsible for communication. The expert in communication must be accurate, credible and correct in every case. The disaster itself must be presented objectively because if the media handles in a subjective way it may indicate undesirable activity-chain among public.



Dobson (2002) says, based on his experiences the mutual and advantageous, so-called "typical daily", cooperation with the media may have significant help. During providing information, cooperation with partner organizations should be borne in mind as well. If the media knows what to do, can move the public towards a direction which is useful and valuable either for the society or the individual, which – according to the author - means the common responsibility.

The media can redound effectively to disaster mitigation by providing timely information on the danger to the public (Chacowry, 2016) and by establishing social links among affected victims, several local and international agencies (Ghavamnia – Dastjerdi, 2013; Duhe, 2008). Media coverage of natural disasters could also influence and intensify the arrival of international aid (Puente *et al.*, 2013).

1.2. Communication influences

In the following paragraphs I represent a few scientific conclusions to evidence the importance of communication in the formation of public opinion and in the common recovery after disaster events.

Prior research has found that both mass and social media can play a significant role in postdisaster-recovery (PDR). In particular, media information has been found to encourage people to support the recovery efforts. However, the mechanisms underlying this process have not been comprehensively investigated. Such knowledge is crucial for both governments and nongovernmental organisations so that they may apply these findings in post-disaster recovery (Cheng *et al.*, 2016).

Studies on post-disaster recovery (for example, Aldrich, 2012; Shaw, 2014; Hawkins –Maurer, 2010) point out that for a community to successfully recover from a disaster, it requires continuous support from both inside and outside the community. According to Cheng *et al.* (2016) knowing that mass and social media can exert different effects on those who were affected by the disaster and those who were not, they anticipate that they can be applied accordingly to motivate and bridge together these two groups.



According to Cheng *et al.* (2015) from the literature review, it is predictable that the use of both media can positively affect social capital and civic participation, which are essential for an efficient recovery. However, as this can be questioned it is important to understand and demonstrate how media can affect people's perception and behaviour in post-disaster recovery, especially considering the current complex media environment.

Post-disaster-recovery, as Mayunga (2007) defines, is a long-term process of a community restoring itself to its pre- disaster condition. It usually begins after the immediate response phase with a set of recovery objectives such as the economic, infrastructural, human and social recovery, and ends when they are achieved (Todd –Todd, 2011).

Social capital is a widely adopted concept in social and political sciences. In essence, it can be defined as the 'features of social organisation, such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated actions' (Putnam, 1993). It consists of three main elements – trust, social norms and social networks – in two major types; bonding the open and outward type among diverse groups (Putnam, 2000).

However, the analysis described below is not strongly connected to the examined topic - it is not addressed directly to the potential effects on public -, it is important to mention as an example of the national monitoring.

Boda and Patkós (2015) examined the potential effects of the media on public policy in the 2010th and 2014th election periods. Their study is the first systematic trial to understand the connection between media routine and the change of public policy not just only considering national issues but the whole Eastern-Central-European region. During the analysis they processed the Hungarian data of Comparative Agendas Project (CAP), which is a reserach of the Hungarian Academy of Sciences, Centre for Social Sciences, Institute for Political Science. The examined cases with large media attention were connected to the following topics: *"Flood and disaster management"*, *"Red mud disaster"*, *"Panic and tragedy in the West Balkán disco"*.

The analyses resulted that in Hungary the effect of media on public policy is weak and they assumed the same result for other countries of the Central-European region.



Into a database, linked to media and public opinion, they collected information about the media effect of various disasters (e.g. Chernobyl, floods) among the public under the term "most important cases for public opinion", but the access to this data is limited, as well as the analysis of results.

Accordingly, I would like to mention that Restás (2012) related to the flood of 2010 writes the opposite way, due to his experiences public policy and media have strong interconnection and influence is still experienced during disaster events too. In the author's point of view, there should be a borderline where this influence disappears. Assuming a sudden disaster event (for example a plane crash) it is more possible to reach it, because there is less time for conscious influence, the given reports are more spontaneous.

1.3. Crisis communication phases during disaster

Bene (2010) summarizes that the 3 main steps of effective crisis communication strategy (in case of hazard event) are: 1. selection and preparation of appropriate experts; 2. preparation of communication plan; 3. continuous, mutual and confidence cooperation with the media.

May refer to this the thoughts about the types, processes and participators of public communication by Angelusz (2000), and the idea of Csernyikné (2007) that in case of disaster event answers to 3 deterministic questions should be formed: 1. What is happening? – understanding the situation; 2. What should we say? – content of the message; 3. How we say it? – form and measures of the message.

Type of communication	Sender	Addressee	Direction of communication
From governmental institutions to public	Governmental institutions	Citizens and social status actors, public	Top-down
Between social sector actors	Social actors and groups in similar social level		Typically horizontal

Table 1 The 4 types of public communication process in Hungary



To governmental institutions form public	Social actors and groups in different social level	Governmental institutions	Bottom-up
Between governmental sector	Actors specialised by different tasks for the governmental institutions		Horizontal

Source: Angelusz, 2000

Graber (1984) divides disaster crisis communication into three phases, adapting to the time course of disaster events:

- disaster event phase: lack of information about the disaster size, devastation and cause
- gaining information phase: exact data gathering about the event, disaster assistance, mitigation process
- post-disaster-recovery phase: general information about the event, healing process (the longest phase, takes several years)

Fathi (2014) presents four phases, adapting to the time course of disasters as well (Fig. 1).

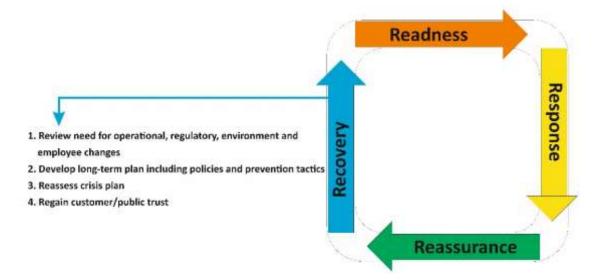


Figure 1 The 4 phases of crisis communication

Source: Fathi, 2014

There is no large difference between the two demonstration types because the same processes are covered, but in Fathi's (2014) work the phase of recovering public confidence appears too,



which considers the potential effects of communication activities of the recovery process on public trust. Furthermore, it handles communication activity as a cycle which correlates with my understanding.

The final part of disaster crisis communication follows the scheme that the reports of disasters should be closed with an image that the order has been restored, supporting the reassure of the public.

2. METHODOLOGY

Based on the experiences gained through the results of the evaluation of a questionnaire related to public confidence – as a part of my primer and seconder research – I believe that it is important to explore the relevant aspects of communication between the National Directorate General for Disaster Management, Ministry of the Interior (NDGDM-MI) – as the coordinator of mitigation and disaster recovery – and the strongly interconnected Hungarian Telegraphic Office (HTO) – as the representor of public media – through interviews (empirical study) to answer the appearing organisational questions. My aim was to explore the missing process elements about the evaluation methods for post-disaster-recovery (PDR).

Partly structured personal interviews were carried out during the spring of 2017. An actual expert of NDGDM-MI (referred to as *Expert 1*), an expert who was employed for long period at NDGDM-MI (representing 2001 and 2010 flood) (*Expert 2*), and an expert of HTO who is responsible for communication between the two organizations (*Expert 3*) were interviewed.

The topics of the interviews to answer organizational questions were the following:

What are the principles of the communication at the organization? How crisis communication is carried out focusing on post-disaster-recovery (PDR)? What is the relationship between the coordinator organization and the media? Is the course of statements, declarations, news, public feedback (e.g. societal confidence) monitored (especially in case of mitigation)? What is their opinion about the public opinion forming influence of the media?



In this work only, the main post-disaster-recovery connected interview' tasks are discussed: What kind of information can reach the public? What is in their background? What factors of their crisis communication activities are analysed?

3. RESULTS FROM THE EXPERTS' INTERVIEWS

3.1. Crisis communication and pdr communication

Expert 1 said, the main goal during the communication of disaster management is to realize safety of life and property as well.

According to Expert 2, it is important to not just only start communication right after a disaster but also in "peace time". Expected effects must be communicated too. This must be a cycle-process which is well-planned. This idea corresponds to Fathi's (2014) presentation.

Expert 3 thinks it is important that every field of expertise (e.g. disaster management, meteorology) must have an expert on its own side, who can communicate the technical language to the public in an easy-to-understand way. This was confirmed by Expert 1 and Expert 2 independently as well. Though, for effective collaboration with the media, proficiency and the knowledge of scientific language and its content are needed from the media-side because this is the only way to provide appropriate information to the public.

The components of crisis and conventional communication in disaster management are not so different, except the request number and who and when declares according to Expert 1. It is similar to an overcurrent system by Expert 2 (*Fig. 2*).



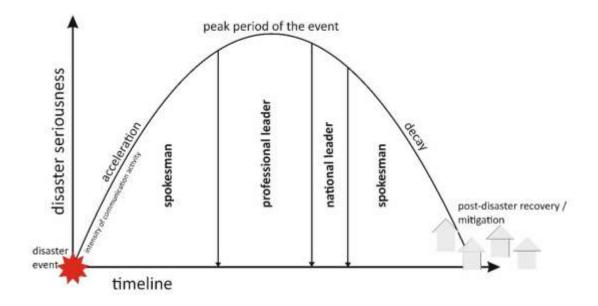


Figure 2 Crisis communication phases and declaring persons

Source: Own editing based on Expert 1 interview, 2018

The phases of crisis communication of disaster management follow each other as a cycle. This cycle process is the following according to Expert 1 and Expert 3 (*Fig. 3.*):

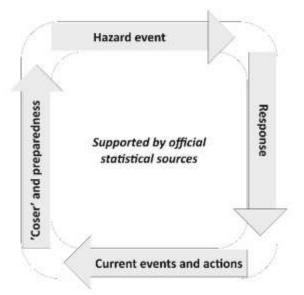


Figure 3 Crisis communication circle

Source: Own editing based on Expert 1 and Expert 3 interviews, 2018



As the figure describes 4 main phases can be separated, where the first is hazard event communication, directly after the crisis event happens, where useful information, orders and facts are provided to the public right after the event. This is followed by response, where response, relief, countermeasures and solutions are communicated. In parallel with response, real time communication of the events is realized. Then in closer phase information related to reconstruction, mitigation, healing, assistance, conclusions are provided and planned steps against a potential disaster and the details of preparedness are communicated.

Main PDR communication principles by Expert 1:

- No dramatization during the events.
- All important information (e.g.: government-run recovery conditions and tasks) must be delivered to the affected residents, through public media and local media.
- Aggregated information (damage cost and quantity) disclosure to the public (personal rights)
- It is major to highlight the positives of disaster management activities and calming the residents in the announcement and declaration about recovery: the hazard event is solved, no issues are open. It is confirmed by Expert 3, as well.

This is how the cycle of their activity chain is formed.

Expert 1 and Expert 2 said, the communication of PDR is realized in a relatively silent period, health is not at stake, this is technically the follow-up phase of crisis communication (*Fig. 2*). No need to rush, a more planned and built communication can be carried out.

Expert 2 said, the most important in this phase that every essential information (e.g. tasks of victims connected to governmental recovery) should reach the public and the victims. No one should be excluded of mitigation because have not heard about it.

Next to the information provided by the media it is important to present information locally (e.g. local TV, local radio, posters, etc.).



In statements and declarations of PDR it is important to emphasise the positive facts to reassure the public. For example, emphasising that even the "last" victim has already moved to his new, recovered home. The case has been closed on the victims' side, the crisis situation has been solved, and there is no open issue. This was confirmed by Expert 3 from HTO who also mentioned that conclusions and experiences should be communicated. It is also important to write about the recovery process and further activities to proceed future crisis events to make the whole process possible to follow.

Every interviewed expert confirmed, that the recent fluctuation at the media indicates a large problem. Actually, there are many unprepared journalists in the commercial media. Expert 2 said that during crisis event the number of communication errors may increase (larger number of spokesmen). It is fortunate if on both sides (media – disaster management) the communication experts know each other (it is well known who connects with who).

3.2. Feedback and monitoring

The spokesman's activity has a large influence of the public opinion and the index of the public confidence and the image of the represented organisation according to Expert 2.

Expert 3 believes that if the disaster management organisation could handle well a hazard event (e.g.: effective response actions) then the organisation could strengthen and maintain its image and trust level of the public.

Expert 1 said that at the NDGDM-MI a media diary is logged and a media monitoring company is involved to follow the statements - to who, when, how many times it was published, and what is the number of other publications. The experience gained through their communication activity is used to improve future practices. They also take effort to follow-up when (which part of the day) and in what form (length, topic, etc.) was the largest number of publication reached.

However, they do not consider the changes of the level of public confidence. The public feedback related to the published news and communication activities is not monitored, which



was confirmed by Expert 3 as well. Thus, there is no public feedback about the communication activities neither at NDGDM-MI nor HTO.

3.3. Process oriented approach

The next figure summarizes the information given during the interviews. The crisis communication activity of the analysed organizations are represented as a process-chain, which means each communication activity is represented accordingly to the connected disaster management process.



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		Franciscourse			000000000000000		
		NDGDM-MI	Rapidity, Ducumentary, Precision, Unprotectionaries, Disjectivity				
			Protection of life and property				
			No parts triggering Pro plansing process				
			privatpla	Congruency		to fature contramption activities	
			Address that had a second seco	Deficition of simplin orders: what should and what should's do the residents	Highlighting analtae appents		
				leanuran			
				-	No open cases - Closer	f i	
					Aggregated damage		
					data disbatares		
	Main principles				Important information for the affected residents, tasks for demaged residents connectiantits gooin remarkal mitigation		
		нто		Where utary communication (both solution and lossers)			
uctivity			Intervention stature highlighting negative aspects for intervention				
			Rapidity, Ducamentary, Precision, Unpretentiouchess, Objectivity, Alcality				
tion			Authentic and official assess				
ġ			No partic triggining				
E.			Reporting and informing				
COM			Shortness and compartmess				
Characteristics of communication activity			Knowlengs of professional language				
			Tatistic apport				
	Participants	NOCOMA ANI		Spokeuman	Spel	leimer	
Char		NDGDM-MI		Professionel loader			
Ŭ.,					Mational leader		
		нто	Reporter				
		Connection					
	Support systems	NDGDM-MI	-	Marathon terra software			
				PS2 mobile application			
		нто	National Proce Service (NPS)				
	_				Municipal Press Service (MPS)		
	1 = 5	NDGDM-MI	Dartes	nd forth communication between the contacts	of the organisations (HDB/20N	ML.	
	Communit cation direction	нто					
	3 . 4	S	Communication towards residents (FOP DOMN)				
	Difficulties	NDGDM-MI		The shortness of the available time			
				Different binds of disasters increased regard methor			
		нто	Up to date information during eventual periods				
	Inside monitoring	Cumentaria		Media Montoring Com	a hu		
		NDGDM-MI	Media Gury				
Monitoring Feedback		нто					
		(inter-	Media Montoring Johnare				
	Outside monitoring	NDGDM-MI	The fact of membering activities about the public opinion (public confidence level)				

Figure 4 Crisis Communication Processes of Analysed Organisations based on Experts' Interviews – Disaster Crisis Communication

Source: Own editing based on Expert 1; Expert 2 and Expert 3 interviews, 2018



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4. CONCLUSIONS

The aim of this research is to introduce those characteristics of disaster management related crisis communication which are connected to my efforts targeting to increase the efficiency of post-disaster-recovery process. Considering the fact, that during the analysis of disaster management related crisis communication activity it is not necessary to strictly separate communication procedure of the various types of disasters (disaster, natural disaster, flood) – because the type of the disaster in general does not affect the communication activity, the differences in the level of hazard is more deterministic -, in this research this kind of categorization is not relevant.

However, several sociological researches focus on the effects of disasters on public opinion but the organizations involved in my study do not deal with similar activities, which should be handled as a deficiency considering the importance of the task. The information gained through my research confirms that the communication activity during the disaster management process has a large influence on the public affected directly or indirectly by the disaster. It may generate and influence the development of institutional/public confidence. It may be in important feedback about the usefulness and judgement of the realized activities where the communication transfer has a role. Provides information to the public, which may trigger other processes. Thus, the analysis of these triggered processes in the future may have an important role, because it may give the possibility to improve the process. The appropriate way of communication may result higher level of public confidence – supporting the relevance of the organization in the public opinion, indicating the importance at state level as well- while the poorly planned and realized communication may result even the opposite. By the thematic monitoring of the public feedback the communication process can be improved (what should be or not be done during the communication activity).

The main principles of disaster management related communication activity are the same at the two examined organizations, where PDR communication is realized in a calmer period. In this



period there is even more time for focusing on appropriate planning, various analyses that potentially increase the efficiency of the PDR process.

The question may arise, if it is worth to evaluate and characterize the recovery communication by its own, because in the public opinion potentially the communication during the crisis event may have larger influence, or the two phases (crisis event and mitigation) cannot be consciously isolated. This question cannot be answered until the national organizations do not analyse it thoughtfully. Therefore, there is a research need, which would examine this specifically.

In my point of view, to organise and coordinate the monitoring – as the national disaster management coordinator – NDGDM-MI would be suitable, because the greater part of information is gathered there, they coordinate the PDR, accordingly, they have the information to analyse the effects and consequences, considering the importance of collaborations with other PDR connected organizations. In this context, we naturally should calculate that this appears as a plus task at the organization, which may have other indications (HR and cost effects). Although, Hungary does not belong to those countries where crisis events are frequent, the time period among these events gives the possibility for more accurate planning, organization, review and usefulness evaluation.

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