

Summary

Introduction

For the preparation of the future research agenda of the National Coordinator for Security and Counterterrorism (NCTV) and the Directorate General Police and Safety Regions (DGPenV) of the Netherlands Ministry of Justice and Security it is important to have a comprehensive overview of the latest state of knowledge in the field of crisis management. This report consists of a scan of the field of crisis management. It is an inventory of topics within that field, which are the underexposed, or unexamined issues, which deserve more attention and the status of the available literature (size and quality). Later in a second phase, it will be for this underexposed but relevant topics that literature will be further explored. The Platform Training, Education and Governance BV (Plato) and the Institute of Security and Global Affairs, both from the University of Leiden, conducted the research.

Research questions

The main question to which the research provided an answer is; what topics in the field of crisis management are included in scientific research, and what corresponding concrete questions are currently and/or possibly in the future relevant to (literature) research and highlight further? This *state of the art* research crisis management including emergency response focused on the following six research questions:

1. How can the domain of crisis management be delineated?
2. To what extent experts and researchers consider the mapped areas of interest?
3. What is the status of the knowledge in the field of research through this study mapped?
4. Which domains are not or insufficiently examined?
5. What research questions and corresponding methods can be formulated in the framework of the plan for the second phase of the state of the art research, based on the identified issues?
6. What specific research questions are directing considered for follow-up research?

Research design and implementation

The research consists of the following components:

- Exploratory interviews with experts;
- A scan of a large number of sources in the field of crisis management and emergency response;
- Analysis of the collected literature;
- A focus group to share and identify the results found;
- Interviews with professionals from the practice of crisis management and emergency response;
- Overall analysis and conclusions.

Literature research

The researchers have done their search through the use of the program VOX viewer, which enabled them to analyse numerous sources. Available files in the field of crisis management with the *Disaster Risk Reduction* and *Crisis management* were included in the literature search and analysis.

The research uses a broader framework, involving three angles.

The first relies on a secondary database used within the Institute of Security and Global Affairs, where the titles of articles around crisis management in. This is managed by the current editor in chief of the *journal Risk, Hazards & Crisis in Public Policy*. (1996 articles starting from 2014).

The second angle refers to a Scopus search with the search terms "*crisis management*" and "*disaster risk reduction*". A total of 3,185 articles were found.

The third angle includes the most relevant *peer reviewed journals*. 18 *peer reviewed journals* were analysed, plus the Dutch magazine national security and crisis management. It concerns 23,660 articles.

Consultation of experts

Several experts have been consulted for orientation prior to the literature review. After the literature scan, the research findings were shared and discussed with a focus group. After that meeting, three professionals were interviewed to examine to what extent the conclusions of the experts are in line with the wishes from the practice of crisis management and emergency response.

Research results

The study of the literature as well as the discussion of it show that there is a lot of literature available and that there are no areas in the analysis model on which research is totally missing. There is only a distinction in the degree of attention to the various areas. In the phases of the emergency response/crisis management the focus is rather on the response and recovery side than on risk analysis and risk reduction. A lot of literature is generic in nature. Literature on specific types of disasters and/or crises seems available to a lesser extent, with the exception of analyses of individual crises (single case studies), that do frequently occur. In the literature, we find an emphasis on the identification of responsibilities and actions that need to be taken to manage a disaster/crisis. The human side, such as individual behaviour, social processes and communication (internal and external to all stakeholders and between actors) gets less attention. Also from the interviews with experts a picture emerges of a rich research field, but consistency too often is missing. Compartmentalization prevails. The analysis of the common elements, the intervention strategies, the theory and models get less attention.

In research underexposed areas

Topics that are explicitly mentioned as underexposed may be summarized as:

- The origin and the evolution of crises and disasters in general (so beyond the study of individual crises and disasters);
- Recent developments in the nature of crises, and the implications for control/management
- The psycho-social aspects of crises and disasters;
- Aspects of organization, up scaling, collaboration, roles, connectedness and co-operation in (cross-border) incidents;
- Capacity requirements in crises and disasters (competencies, staffing, qualitative and quantitative);
- Decision-making processes during crises, with specific attention to interactions between public and private actors (more far-reaching than the designation of responsibilities);
- Learning capacity. This is closely linked to the importance attached to meta-analyses. In both cases, the question of how the lessons from incidents can be learned and how they may be translated into stricter theory, strategy, tactics, actions, and *tools* for the future.

From the literature scans preparation and prevention appear to get too little attention in research. Both literature and the interviews show that attention to resilience in the last years is increasing. The phase after a disaster, or crisis is often understood as restoring the old situation. Developing a new situation after a disaster is an aspect of crisis management that needs attention.

Further research areas

From all the components of the research it can be deduced that there is a need for research to clarify the coherence of things. On the one hand there seems to be a need for research into the development of crises and of crisis decision-making, and as part of that, the processes aimed at acquiring support, reaching decisions and weighing those decisions against the background of the diversity of perspectives of all actors involved. This primarily concerns the coherence between the phases, the layers and the tasks and roles of chain partners in processes of crisis management. A second need concerns the wish to carry out meta-analyses of a different nature.

Research questions for follow up studies

The research led to the following guiding research questions for the second phase of the crisis management research:

1. How do organization's decision-making processes evolve during the response phase of a crisis? Which factors contribute to gaining support for these decision amongst with others involved?
2. What types of cooperation are possible between actors during the response phase of a crisis? Which factors determine the success collaboration?
3. What types of public-private partnerships exist between actors in crisis management and disaster response? Which factors influence the success of these different types of cooperation?
4. What are the aspects of human behavior that influence the quality and effectiveness of processes and processes in crisis management and disaster management?
5. What trends in types of risks, crises and disasters can be identified?
6. What factors can be identified per academic discipline as relevant to successfully managing a crisis, and to gaining resilience to future crises?
7. Which factors are important for a successful response to a crisis and for the promotion of resilience?
8. To what extent do crisis managers and other actors involved take into account previously identified factors that influence the management of a crisis?

Cross-cutting analyzes

One type of meta-research involves the analysis of series of incidents and interventions to rise above all separate evaluations and to come closer to an overarching theory / framework that may guide all kinds of aspects of crisis management / disaster management such as recruitment and selection, training, exercise and training, evaluation of exercises and incidents, professional development and expertise building. This primarily involves building up a theory based frame of reference for all actors involved and to which experiences with crises and disasters may contribute over time.

Multidisciplinary research

A second type of meta-analysis concerns analyzes of individual crises and disasters from a multidisciplinary perspective, with attention to all the sub-aspects already mentioned. There is a need for this type of research within crisis decision-making. It is primarily aimed at gaining more value from different perspectives and multidisciplinary analysis of series of crises and disasters.

Action-oriented research

A third area concerns the need to gain more insight into human processes and actions in disasters / crises and their control. This also involves a need for very concrete scenario-like investigations into disaster types and how to deal with them (flooding, flooding and drought, the cyber component

attached to crisis management and disaster response and the increasing international / global and virtual component). Central question is: What do identified developments mean for the future of crisis management and disaster management?

The need for further research to clarify the inter-relations between phases of crisis management and between perspectives and theories from which to study crisis management supports the agenda on risk management and crisis management proposed by ministries, and safety regions¹.

Research formats

Multidisciplinary research

First of all there is a need to focus specific literature research on the mentioned processes of crisis decision making, and coordination, and in particular to analyse the different perspectives of all those involved. There is sufficient literature available to create a first framework around this. The challenge is to bring together literature from different disciplines (public administration, social psychology, sociology, communication sciences, legal sciences etc.).

Meta evaluation study

Research into evaluations of previous incidents and disasters (in other words, bringing together large amounts of individual case studies) offers the possibility to search in an interdisciplinary team of researchers for the core processes, the similarities and differences between them, variations in their effectiveness. The focus within the evaluations will, in terms of content, be on the proposed research priorities. This includes the following topics:

- The development, escalation and domino effects of a crisis or disaster;
- The decision making and coordination processes;
- The public-private partnership;
- The link between operational, tactical and strategic components of disaster management / crisis management (cohesion between layers);
- The long-term effects / impact / and reconstruction (including professional learning at organization and individual level).

Focused research

Focused studies can be seen as pilots in the aforementioned studies aimed at forming a background framework. The combination of conceptual studies, evaluations and concrete tests / simulations contributes to the validity of knowledge concerning crisis and disaster management.

¹ <https://www.rijksoverheid.nl/documenten/kamerstukken/2018/11/12/tk-agenda-risico-en-crisisbeheersing-2018-2021>