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Crisis Communication Competence in Co-Producing Safety with Citizen Groups

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Abstract: The aim of this article is to explore interpersonal communication competence needed by crisis communication and management experts when co-operating with citizen groups in response to emergencies. Moreover, the purpose is to understand how response organizations can further develop this crisis communication competence and so contribute to the functioning of response networks. The research task is approached qualitatively by eliciting crisis communication and management experts' (n = 33) perceptions of the interpersonal communication competence response organizations needs when co-operating with citizen groups. The data were gathered via an international online questionnaire using a method referred to as "thematic writing" and consist of written responses to open-ended questions on what constitutes the core of crisis communication competence and what aspects of it need more attention. The research findings indicate that co-producing safety with citizen groups demands crisis communication competence related to message production, message reception, and interaction between experts and citizen groups. In addition, the findings clarify what areas of crisis communication competence need to be further developed to facilitate co-operation between experts and citizen groups. However, the authors suggest that crisis communication competence should not be seen solely as a characteristic of individual crisis communicators but approached as a networked and co-created area of competence.

Keywords: community approach; crisis communication; crisis communication competence; interpersonal communication competence

1. Introduction

Successful crisis management necessitates co-operation not only between various response organizations but also with citizen groups in order to co-produce safety and adapt to changing situations. This article examines "a community approach to crisis management" [1,2], known also as "a whole community approach" [3], where citizen groups are not seen merely as target groups but instead as active co-actors in response to emergencies. The importance of this co-operation calls for the development of experts' competence in interpersonal communication and social interaction.

Crises can be characterized as specific, threatening circumstances that take people by surprise, create high levels of uncertainty, and demand fast decision-making [4]. In this paper, we focus on emergencies and natural disasters rather than reputation crises. Because every crisis situation is different and evolves over time, preparing for crises is challenging [5]. Moreover, since "crisis is a process of transformation where the old system can no longer be maintained" ([6], p. 43), crisis situations necessitate learning and changing. Additionally, the ability to cope with crises while co-operating with various actors necessitates that crisis communication and management experts have competence in interpersonal communication and social interaction.

The aim of this article is to clarify the interpersonal communication competence needed by crisis communication and management experts when co-operating with citizen groups in response to emergencies. Interpersonal communication competence consists of knowledge, skills, and motivation that can be perceived as effective and appropriate in social interaction [7]. Several studies have examined interpersonal communication competence in various relational, institutional, and cultural contexts (see e.g., [8,9]), and many researchers as well as practitioners consider it as a core competence in contemporary working life and in society in general, having many serious short-term and long-term effects on human beings' personal and professional life (for a review, see [10]). However, research has rarely approached interpersonal communication competence from the viewpoint of experts in crisis communication and management. In this article, interpersonal communication competence is applied to a crisis communication and management context and referred to as "crisis communication competence". Moreover, the purpose is to understand how response organizations can further develop the crisis communication competence required in successful crisis communication and management, and, in this way, contribute to the functioning of response networks.

The theoretical background of the study draws on a community approach to crisis management [1–3] and the research tradition of interpersonal communication competence [7,8,11]. First, light is shed on the complex nature of current crises and need for a community approach to crisis management. Second, the research tradition of interpersonal communication competence is briefly introduced. After explaining the methodology, the findings are presented. In the end, the research findings are further discussed and the suggestion made that crisis communication competence should not be seen solely as a characteristic of individual crisis communicators but approached as networked competence which is co-created in the relationships between crisis communication and management experts and various citizen groups. In addition, some limitations of the present study are discussed, along with suggestions for future research.

2. Theoretical Background

According to Falkheimer and Heide [5], preparing for crises is challenging, since crises are most often caused by a large number of interacting causes and events, and therefore complex and unpredictable by nature. They suggest that it is not often possible to deal with crises according to the pre-planned order, but, instead, successful crisis communication and management necessitate from experts the ability to improvise and to cope with different crisis situations as these evolve over time [5]. Along similar lines, Seeger [12] has stressed that crisis planning should, rather than a specific, tangible outcome, be seen as a process aimed at organizational learning and mindfulness. In this article, it is argued that the complex and unpredictable nature of current crises highlights the importance of crisis communication and management experts possessing an appropriate level of crisis communication competence. Since every crisis is in some way unexpected or unique, learning to act in crisis situations in a certain way is not often enough, but to be seen as competent communicators, experts are likely to need a comprehensive range of potential communicative tactics, strategies, and styles in their repertoire, from which to select the ones most likely to be viewed as competent in a given context by a given audience to which they are performing. Thus, it is argued that it makes sense to concentrate on developing crisis communication competence that enables experts to cope with different crisis situations. In other words, it is argued that, for experts, having the necessary crisis communication competence is often as important as, for example, detailed security plans.

Since crises are often complex and fast-developing, the problems created by crises cannot be solved by crisis communication and management experts alone (see also e.g., [1]). Thus, successful crisis management necessitates co-operation within various organizations in the response network as well as between response organizations and citizen groups. In this kind of community approach to crisis management, citizen groups are not seen merely as target groups but rather as active actors in co-producing safety. This calls for the collaboration of crisis response organizations with citizen groups, and thus requires that the experts involved have the requisite crisis communication competence.

Despite the lack of previous research focusing directly on the interpersonal communication competence needed in response organizations, the requirements of competence in interpersonal communication and social interaction have been implicit in many previous studies. Researchers have, for example, argued that crisis communication and management experts need to be able to listen to citizen groups, identify with the person with whom they are negotiating, be open, honest and clear, and act as skillful negotiators [5]. It has also been highlighted that experts need to be able to monitor the needs and expectations of citizen groups, enhance trust [13], and offer timely, accurate, specific, sufficient, consistent, and understandable information via communication that is simple enough [14]. To facilitate effective crisis communication decision-making, the abilities to manage information, to think horizontally in a changing management environment, and to deal with authoritative ambiguity have also been pointed out to as being required by managers [15]. Besides, many researchers have described successful crisis communication tactics and strategies and listed "best practices" for effective crisis communication to improve organizational and professional practices (see e.g., [12,16–21]), including also some aspects of interpersonal communication competence that experts need. It has been, for example, stated that crisis communication and management experts need to network, collaborate, and build sustainable relationships prior to actual crisis events since, when crisis occurs, there might not be time or other resources to identify potential credible partners [12,21]. However, deeper understanding of the core requirements of experts' crisis communication competence from the viewpoint of interpersonal communication and social interaction is significantly needed in developing successful crisis communication and management.

Considerable research interest has been shown in interpersonal communication competence as such, and many scholars in communication and other related fields have applied various theoretical perspectives and methodological approaches (for a review, see e.g., [8,9,11,22]). According to Valkonen [23], interpersonal communication competence has been examined, for example, from the perspective of an individual's traits and situation-specific communication behavior, the relational level of communication and interaction, the interrelationship between individual and society, and the ethics of communication and social interaction. Besides dyads, interpersonal communication competence relates to social interaction within various teams, groups, communities, and networks. Moreover, in this article, it is understood that interpersonal communication competence is not needed solely in creating, maintaining, or developing relationships but required to accomplish also other communication functions in social interaction.

Interpersonal communication competence includes three overlapping dimensions: knowledge, skills, and motivation. These cognitive, behavioral, and affective dimensions of competence have most often been assessed by focusing on two criteria of competence: effectiveness and appropriateness [7,24]. Similarly, in this article, interpersonal communication competence refers to crisis communication and management experts' knowledge and understanding of effective and appropriate crisis communication, to the interpersonal communication skills that enable their effective and appropriate interaction in various crisis situations, and to the motivation and attitudes experts need to be able to communicate and interact in ways that can be viewed as both effective and appropriate. Thus, although the concept of "skills" is used in many cases as a synonym for competence, in this article "competence" is seen as a wider concept, encompassing skills (see also e.g., [7,23,25]). Besides above-mentioned dimensions, it is stated that interpersonal communication competence includes a meta-cognitive level of competence, required in planning, controlling, and analyzing communication and social interaction [23,25].

Additionally, interpersonal communication competence is strongly intertwined to the discussion of ethics and responsible communication, and several researchers include also various ethical principles, such as a sense of moral responsibility and the desire to respect interpersonal trust, to the definition of interpersonal communication competence (see e.g., [9,23,25,26]). In the context of crisis communication and management, credibility and ethics of communication are seen highly relevant (e.g., [12]), since in life-critical situations experts' communication can facilitate in saving lives and minimizing the damage caused. However, as stated by Etkin and Timmerman [27], even though crisis communication and

management is a very human-centered discipline, ethical issues have received insufficient attention in the academic and professional crisis communication and management literature.

Interpersonal communication competence can be approached as a certain behavior, ability, or characteristic of individuals. However, it has regularly been argued that behaviors themselves are not competent or incompetent and that interpersonal communication competence should rather be considered as an impression which actors and co-actors form about the effectiveness and appropriateness of their own and their co-actors' communication and interaction [28,29]. In other words, it is suggested that interpersonal communication competence should be perceived as a relative and subjective construct that is also affected by context.

The majority of research has studied interpersonal communication competence on an individual level. However, it has been suggested that interpersonal communication competence should not be approached on an individual level at all but rather examined on a relational level as a shared competence that is co-created between human beings (e.g., [25,28–31]). Likewise, in this article, it is argued that although individuals need knowledge, skills, and motivation to be able to interact effectively and appropriately, crisis communication competence is networked competence that is co-created in the relationships between crisis communication and management experts and various citizen groups.

3. Research Design

The aim of this article is to clarify the crisis communication competence needed by crisis communication and management experts when co-operating with citizen groups in response to emergencies. The research questions are the following: (RQ1) what kind of crisis communication competence do experts need when co-producing safety with citizen groups and (RQ2) what areas of crisis communication competence need to be further developed in order to facilitate co-operation between experts and citizen groups.

The research task is approached qualitatively by eliciting crisis communication and management experts' perceptions of the crisis communication competence needed in response organizations when co-operating with citizen groups. The study uses a method referred to as "thematic writing", as an analogy to thematic interviewing [32], *i.e.*, instead of answering orally, the respondents were asked to express their thoughts by writing. Thus, the data consist of short essays collected from the crisis communication and management experts. The essays were gathered via an international online questionnaire sent to crisis communication and management experts working in the field of crisis response. The method was chosen since it enabled collecting an extensive and international research data (see e.g., [33,34]).

Before gathering the data, the questionnaire was tested among two crisis communication and management experts and the phrasing of a few questions was made clearer based on the feedback received. After that, an email invitation to participate in the questionnaire was send to experts, selected by the Global Risk Forum from the database of the annual International Disaster and Risk Conference (IDRC) in Davos, Switzerland. The recipients of the invitation were limited to experts working in the field of crisis response, either in crisis communication or management. Thus, for example, researchers from universities and research institutions, also attending the IDRC, were excluded. Based on their postal addresses of that moment, there were potential respondents from 26 European countries.

The online questionnaire started with an informed consent form and, in addition to, section of crisis communication competence, the topic of this article, also comprised other sections concerning crisis communication and management. Most of the questions were open-ended, with the exception of a few, e.g., concerning respondent background. The respondents received a login code to be able to return to the questionnaire if they wanted to add information later. Of the 493 experts approached, 42 answered the questionnaire. Non-response was explained by the login requirement enabling the experts to complete the lengthy questionnaire at a later time. Following strict ethical guidelines, respondents could leave any question open, for example if they were not familiar with its content.

However, the method of collecting written responses provided valuable qualitative insights into the topic.

For this article, the research data are qualitative and consist of written responses to two open-ended questions: (a) what is the core of interpersonal communication competence (e.g., knowledge, skills) needed in organizations when co-operating with citizen groups and (b) which part of this interpersonal communication competence would need more attention. These questions addressing crisis communication competence were answered by 33 of the respondents. Both of these open-ended questions were followed by large white spaces to answer in essay format. Even though describing the competence one uses and needs at work may be difficult, this approach was chosen to examine the experts' own understanding of the topic. However, drawbacks of the method and the possibilities to deepen the findings by exploring also perceptions of citizen groups and other stakeholders of the strengths and development needs of experts' crisis communication competence are further discussed after presenting the findings.

The respondents were experts in crisis or emergency management (n = 20), crisis communication (n = 11), and related fields including risk analysis, recovery planning, and disaster prevention (n = 11, multiple answers were permitted). All the experts had many years work experience in the field with an average of 12 years, raising the credibility of their statements. The types of organizations represented included governmental organizations or authorities, health care, expertise centers, and non-governmental organizations. Most of the respondents (n = 25) worked in European countries, but some worked only (n = 3) or in addition (n = 5) in non-European countries. 15 of the organizations the respondents represented operated internationally, 22 nationally, eight regionally, and nine locally.

The essays were analyzed from a data-driven perspective, utilizing and combining perspectives of qualitative content analysis (e.g., [35–37]) and thematic analysis (e.g., [38,39]). Following Hsieh and Shannon ([37], p. 1278), qualitative content analysis can be defined "as a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns". Thus, by using qualitative content analysis, the authors aimed at describing the contents of data systematically and comprehensively and at finding the meanings included to the data. Furthermore, by using thematic analysis the aim was to find, form, and group repetitive topics, *i.e.*, themes, from the data and to explore them more profoundly.

First, the data were downloaded to ATLAS.ti (qualitative data analysis software) and the authors familiarized themselves with the data by repeated reading to achieve immersion. Using ATLAS.ti eased the organization of the data and helped to keep the analysis process systematic, consistent, and transparent [40]. The next step in the analysis was the categorization and thematization of the data. The data were worked through manually and arranged according to its main themes, derived step-by-step from the data and revised if needed during data analysis. Thus, the authors used inductive category development [35], avoiding using preconceived categories but rather forming the categories and names for categories from the data instead (e.g., [37]). Under each theme, similar topics were grouped together to be further subdivided into subtopics.

As noted by Hsieh and Shannon [37], the success of content analysis depends greatly on the coding process. In this study, the researchers coded the texts and discussed points of disagreement to obtain consensus. The following questions guided the analysis: (a) what aspects of interpersonal communication competence are considered needed by the experts; (b) why is interpersonal communication competence considered relevant; and (c) what aspects of interpersonal communication competence need more attention in the future. The next final, partly overlapping, steps in the analysis were to explore the contents of these themes in more detail, interpret the findings, and draw conclusions. Following a conventional approach to content analysis, relevant theories and other research findings were also addressed in the discussion section of the study (see e.g., [37]).

4. Research Findings

4.1. The Components of Crisis Communication Competence Needed by the Experts

According to the findings, experts need multifaceted crisis communication competence in co-producing safety with citizen groups, both in face-to-face situations and via various communication technologies. The research findings indicate that the requirements of experts' crisis communication competence can be divided based on whether they are related to (a) message production; (b) message reception; or (c) interaction between experts and citizen groups. Table 1 concludes the main components of experts' crisis communication competence. Below, these three areas of experts' crisis communication competence are discussed in more detail and classified on the basis of the main communication functions they encompass.

Table 1. The components of experts' crisis communication competence.

Competence in Experts' Message Production (a)	Competence in Experts' Message Reception (b)	Competence in Interaction between Experts and Citizen Groups (c)
Function-based areas: - Informing citizen groups - Activating citizen groups - Educating citizen groups *Transfunctional aspects:* - Language and intercultural communication competence - Selecting a proper communication channel - Using various ICTs	- Interpreting, analyzing, and evaluating communication - Tracking the needs of citizen groups - Understanding emergencies from the standpoint of citizens groups - Taking citizen groups' emotions into account - Listening and accommodating communication	- Facilitating, coordinating, and supporting interaction and co-operation - Networking and building sustainable relationships - Group communication competence - Providing and receiving feedback - Managing tensions and defining roles - Building mutual trust

4.1.1. The Features and Functions of Experts' Message Production

According to the experts, one of the main functions of crisis communication is to inform citizen groups about evolving crises and raise their awareness, for example, of the risks. First, the respondents emphasized that, in order to provide information competently, they have to be able to convey messages that are clear, understandable, accurate, consistent, and credible. The experts stated that, in disseminating information, it is important that communication is timely, and, therefore, in many cases, also fast enough. This helps people to understand what is going on and what to be alert for. They also underlined that, in order to communicate effectively, issues sometimes need to be repeated.

The second main function of crisis communication that emerged from the data was to activate citizen groups. The respondents reported that it is important for them to be able to communicate in ways that prompt citizen groups into action and increase their motivation and willingness to work for the common good. They also pointed out that their messages have to have a long-lasting impact in order to be perceived as competent, and that to achieve the aim experts need to be convincing communicators as well as competent motivators and inspirers. Other crisis communication competence areas that they mentioned as essential were expressiveness, assertiveness, argumentation, and persuasion.

The third main function of crisis communication, as described by the experts, is to educate citizen groups in order to increase community resilience and empower citizen groups by enhancing crisis preparedness, response, and recovery. According to the findings, this requires that experts have pedagogical and didactical communication competence, including, for example, the ability to motivate and guide citizen groups, and willingness to share knowledge and skills.

In addition to previously mentioned function-based areas of crisis communication competence, experts described many transfunctional aspects of crisis communication competence. First, they

underlined the importance of language and intercultural communication competence as a part of crisis communication competence. According to the findings, language abilities are fundamental in successful crisis communication. In addition to mother tongue, the experts stated that it is crucial for them to be able to use other languages as a working language, especially other local languages used by citizen groups in the crisis areas. Along with language abilities, strong emphasis was placed on understanding other cultures.

The responses also yielded competence in selecting a proper communication channel and using various information and communication technologies (ICTs) as a pre-requisite of successful crisis communication. As the respondents stated, this requires, for example, an understanding of the possibilities and constraints of various ICTs and the ability to use a full range of communication channels and media. Furthermore, according to the experts, crisis communication competence necessitates endurance as working in crisis response organizations can be tough, an ability to manage complexity and accept uncertainty, open-mindedness to new ideas, flexibility, technical knowledge, and knowledge of emergency structures.

4.1.2. The Features and Functions of Experts' Message Reception

According to the experts, crisis communication competence is not just sender-oriented, one-way communication from experts to citizen groups. Along with competence related to message production, and content and delivery skills, experts need multifaceted competence in message reception and interpretation, including analyzing and evaluating communication. First, crisis communication competence requires from experts an ability to track the needs and preoccupations of citizen groups, including active listening skills, observation skills, and also the capability to monitor public discussion, for example in social media, in order to identify the problems and requirements of citizen groups. Secondly, crisis communication competence necessitates understanding emergencies from the standpoint of citizens groups. The respondents stated that this includes, for example, understanding the reality of citizen groups and their daily relation to risks and crises, and understanding the context and the ways citizen groups think. In other words, crisis communication competence necessitates that experts are able to take the position of the other side.

According to the findings, one essential receiver-focused area of experts' crisis communication competence concerns taking citizen groups' emotions into account. The respondents stated that in the course of their work they often face emotional people who have, for example, various kinds of fears. In order to communicate competently in these kinds of emergency situations, experts need to show respect to citizen groups, be sensitive, and communicate with compassion and empathy. Since experts communicate to various audiences and work with various kinds of citizen groups, they also highlighted the importance of listening to be able to accommodate communication to those with whom they are co-operating. According to the findings, this requires that experts understand, for example, which level and amount of information is appropriate in a particular case. In addition, experts need to understand the citizen groups to be able to accommodate their use of language to avoid, for example, using overly technical language with citizen groups who are not familiar with such terminology. All in all, the ability to find a common level for communication that would allow everybody to participate in a debate was stated to be a crucial aspect of crisis communication competence.

4.1.3. The Features and Functions of Interaction between Experts and Citizen Groups

The research findings indicate that, in addition to message production and reception, experts' crisis communication competence involves facilitating, coordinating, and supporting interaction and co-operation between experts and citizen groups as well as between and among various citizen groups. According to the findings, experts therefore need competence in networking and building sustainable relationships with citizen groups. This necessitates for example the ability to cross various boundaries and to build common spaces for co-operation. Based on the experts' perceptions, crisis communication competence also involves group communication competence related to both group task

competence, such as decision-making skills and negotiating skills, and group relational competence, such as managing disagreements and conflicts. Furthermore, the experts reported that both providing and receiving feedback is a crucial part of competent crisis communication.

The experts stressed that, although they have to be able to direct citizen groups and act as leaders in some cases, in order to interact and "really collaborate" with citizen groups, it is essential that they are not considered too dictatorial. This requires, for example, the ability to manage the tension between being an authority and an equal partner in co-operation and to define roles between experts and citizen groups. The latter was also considered needed in order to build mutual trust. The respondents laid emphasis on the importance of trust in crisis communication and stated that building trust necessitates, for example, impression management, openness, and honesty from all the collaborating partners. In order to build mutual trust, it was also underlined that experts need to trust and respect citizen groups' competence and ability to contribute to crisis management.

4.2. Main Areas of Crisis Communication Competence to Be Further Developed

According to the experts, crisis communication competence is highly important in crisis communication and management. However, the respondents stated that, in practice, the level of experts' crisis communication competence is not always good enough. Some respondents felt that crisis response experts lack crisis communication competence generally and stated that all of the competence areas they had described should be developed. According to the findings, especially competence in "observation and argumentation", "openness", and "transparency on all levels of crisis communication" should be further developed. In addition, the respondents stated that more attention needs to be paid to experts' ability "to use modern means" of communication, such as social media.

Crisis communication has often been seen linearly as sender-oriented, one-way communication, for example, concerning warnings and instructions. However, attention has been drawn recently to the importance of two-way communication and interaction between crisis communication and management experts and citizen groups [14,41–43]. Although the importance of more interactive crisis communication has been acknowledged, previous studies indicate that response organizations continue to see this kind of receiver-focused approach to crisis communication as challenging [13]. The present findings support this observation and reveal that, according to the respondents, the most important aspect that needs to be further developed in experts' crisis communication competence in co-producing safety with citizen groups is *to move from traditional one-way communication towards more interactive crisis communication*. Experts need to, for example, "act more interactively" and "invite more stakeholders to exercises and conferences—showing them that they matter". All in all, it was emphasized that the "ability to engage in two-way dialogue with members of the community" is a key in co-producing safety with citizen groups. Thus, it is suggested in this article that *a shift from focusing on experts' crisis communication to studying dialogical crisis interaction as such* should be elaborated in more detail in the future.

5. Discussion

Crisis communication and management experts encounter a wide variety of interpersonal communication and social interaction situations in the course of their work. Nevertheless, few studies have examined their work from the perspective of interpersonal communication competence. Given that (a) the complex nature of current crises necessitates crisis communication competence and (b) a community approach to crisis management calls for the development of experts' competence in interpersonal communication and social interaction, this lack of research is surprising and unfortunate. This article contributed to previous research on crisis communication and management by clarifying the areas of crisis communication competence needed by crisis communication and management experts when co-operating with citizen groups in response to emergencies. In addition, the research findings indicated what areas of experts' crisis communication competence need to be further developed in order to facilitate co-operation between experts and citizen groups. Providing this kind of understanding is

important, since the effectiveness of crisis communication can assist in protecting people and even saving lives during a crisis event.

In this article, crisis communication competence was approached from the standpoint of the requirements of interpersonal communication and social interaction by crisis communication and management experts. Since individuals engaging in social interaction can have greater or lesser competence in interpersonal communication (see e.g., [23,44]), assessing, understanding, and developing competence on an individual level is important. However, it is suggested that crisis communication competence should not be seen solely as a characteristic of individual experts but approached as networked competence that is co-created in the relationships between experts and citizen groups. Thus, it is suggested that along with research focusing on experts' knowledge, skills, and motivation, which are likely to be perceived as effective and appropriate in various crisis communication contexts, researchers should study the nature and different aspects of competent relationships as such. Thus, further studies would have the potential to regenerate the present individual-oriented research tradition of interpersonal communication competence.

Further research is required to create a more profound theoretical conceptualization of the experts' crisis communication competence needed in co-producing safety with citizen groups as well as in co-operating with other actors involved in crises, such as local volunteer organizations and journalists. Even though mapping the core areas of experts' crisis communication competence is helpful in understanding the requirements of experts' work, fragmented lists of demands and challenges which experts may face and should thereby be prepared, do not assist in understanding what kind of phenomenon crisis communication competence actually is but rather in what kind of situations and to what kind of purposes competence is used for (see also, [45,46]). Thus, along with classifying the aspects of crisis communication competence, further research is needed to gain a more in-depth understanding of the nature and role of crisis communication competence in successful crisis management. Additionally, the understanding of crisis communication competence could be further expanded by elaborating on the topic through the use of various theories such as structuration theory [47], attribution theories [48,49], or expectancy theories [50,51]. As stated by Wilson and Sabee [22], the precise meaning and measurement of competence differs across various communication theories and, thus, also affects understanding of and strategies for enhancing competence.

Crisis communication and management research has examined, for example, citizens' information needs and information seeking (e.g., [52,53]) and experts' effective dissemination of crisis-related information, either via more traditional media or via social media (e.g., [54]). However, as the findings of this study revealed, experts' need to take also citizens' as well as their own emotions into account to be considered as competent crisis communicators. Thus, it is suggested that next to studies focusing on rather cognitive processes of seeking and sharing information in crisis situations, emotional aspects of effective crisis communication and competence in providing emotionally supportive crisis communication should also be elaborated more profoundly in the future.

Despite the importance of interpersonal communication competence, little research has focused primarily on exploring how interpersonal communication competence develops and how it is learned at work. In fact, there is a dearth of theories and models describing the acquisition of interpersonal communication competence in adulthood as a whole [25,55,56]. However, the development of interpersonal communication competence is a life-long and life-wide process. Since, for most adults, working life is the most important learning context [57–59], further research should be also addressed to understanding crisis communication and management experts' informal learning at work in relation to crisis communication competence. This aim calls for a multidisciplinary approach combining expertise, for example, from the communication studies and adult education.

Further research is also needed to explore what variables promote or prevent the development of experts' crisis communication competence at work and, for example, how organizational structures or cultural differences enable or impede crisis communication competence. Such understanding could be utilized, for example, in supporting crisis communication and management experts' informal

learning at work and in creating favorable learning environments in which experts could develop their professional and interpersonal communication competence. Better understanding of the topic could also be used in developing formal communication education and professional training of crisis communication and management experts (see also, [60]). In addition, since individuals might not be the most reliable judges of their own competence [61–63], the level of experts' crisis communication competence should be also evaluated by using various methods and assessment instruments specifically developed for the purpose (see e.g., [23,44]) and by exploring, for example, citizen groups' and other stakeholders' perceptions of the strengths and development needs of experts' crisis communication competence.

Crisis communication is a process that applies to many phases of a crisis, *i.e.*, pre-crisis, initial event, maintenance, resolution, and evaluation. It has been argued that in various crisis management phases certain communication tasks are needed [13,64–66]. This study alludes to the fact that the core areas of crisis communication competence needed in crisis management might vary across the different crisis phases. The findings suggest that, for example, networking skills are particularly important before a crisis, the ability to negotiate and make fast decisions is of especial relevance during a crisis, and showing empathy is, for the most part, paramount during and after a crisis. However, further research is needed to understand more profoundly the essence of crisis communication competence in crisis preparedness, response, and recovery.

In order to co-produce safety, both response organizations and citizen groups need to be competent in interpersonal communication and social interaction. In this article, crisis communication competence was approached from the perspective of the interpersonal communication competence required by crisis communication and management experts. In the future, it would also be important to explore what kind of crisis communication competence citizens need when co-operating with each other, with the other stakeholder groups, and with crisis response organizations that form the response network, as already explored in some previous studies (see e.g., [67]). Besides the requirements of experts' crisis communication competence, response organizations need to understand the crisis communication competence of citizen groups to be able to improve the competence of such groups and to support their awareness and actions in crisis situations. Therefore, it would be also crucial to examine how the crisis communication competence of citizen groups could be enhanced by crisis response organizations aiming to increase community resilience.

Although focusing on both experts' and citizens' crisis communication competence might be warranted in research, Vos and Sullivan [68] have noted that this kind of dichotomous approach is, at the same time, a simplification because crisis communication is actually co-created in a multi-actor arena [69]. Thus, it is also suggested in this article that to facilitate understanding of the interpersonal communication competence in crisis communication and management context, further effort should be put in theorizing "a multi-actor network crisis communication competence", including also the other stakeholders in the response network. Thus, it is argued that, for example, the requirements of journalists' crisis communication competence should be investigated more profoundly in the future. Consequently, there is a need for studies contributing to inventing innovative ways to determine shared development needs and to develop a co-created interpersonal communication competence on a relational level of crisis communication.

6. Limitations

In this article, crisis communication competence was examined by focusing on experts' own experiences and understanding of the topic. Collecting written responses to open-ended questions gave the respondents the opportunity to reflect on their experiences. However, the method may also have its drawbacks. It is often stated that describing the competence one uses and needs at work may not be an easy task [26,59,70]. Thus, the respondents' ability to remember and describe their experiences verbally might have influenced the research findings (see also, [71]). Moreover, the respondents' motivation to participate in the study and the time they could spare for answering

might have affected the data. However, collecting written essays enabled experts to flexibly choose when to answer. Unlike with the interview method, there was no way of asking further follow-up questions [71,72]. Although for the purposes of qualitative research there were sufficient respondents, a greater number would have added to the credibility of the findings. However, while small in comparison to the potential population of experts, researchers reached a saturation point in their data analysis that sampling more data did not lead to different outcomes related to their research questions. Moreover, the original distribution of the questionnaire was to crisis communication and management experts participating in an International Disaster and Risk Conference in Davos, Switzerland, which raises the credibility of their statements compared to the use of a simple convenience sample, as indicated by the average of respondents' work experience in the field (12 years).

7. Conclusions

This study contributed to previous research on crisis communication and management by applying the concept of interpersonal communication competence to a crisis communication and management context and provided insights into the requirements of crisis communication and management experts' interpersonal communication competence needed in co-producing safety with citizen groups. The research findings are needed in developing formal communication education and professional training of crisis communication and management experts and in supporting their informal learning at work. It was suggested that this competence area, referred to as "crisis communication competence", should be seen as co-created in the relationships between crisis communication and management experts and citizen groups as well as between other actors forming the response network. Thus, the study contributed to previous research on crisis communication and management by developing a new concept that offers a novel theoretical approach to understand and develop the functioning of response networks. Moreover, it emphasized a need for broadening the present individual-oriented research tradition of interpersonal communication competence and laid emphasis on inventing innovative ways to determine shared development needs and to develop a co-created crisis communication competence on a relational level. It was argued that a shift from focusing on developing experts' crisis communication to elaborating on dialogical crisis interaction as such is needed to strengthen crisis management. Additionally, the study provided insights into theorizing "a multi-actor network crisis communication competence". To study crisis communication and management, it was also suggested that a competence-based approach appears to be justified, as so many interesting and important questions still remain unsettled.

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