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Yan Jin¹©, Sung In Choi¹©, and Audra Diers-Lawson²©

1. Grady College of Journalism and Mass Communication, University of Georgia, Athens, GA, USA
2. School of Public Relations and Journalism, Leeds Business School, Leeds Beckett University, Leeds, GB

ABSTRACT
For more than a year the world has tried to respond to the COVID-19 pandemic. This special issue of the Journal of International Crisis and Risk Communication Research (JICRCR) provides an expert evaluation of how different countries have responded to this global threat. As the pandemic has fundamentally affected most of our lives in a multitude of ways, lessons learned and insights gained from innovative and inclusive research have also advanced theory and practice in public health crisis and risk communication.

KEYWORDS: COVID-19, JICRCR, crisis, risk, public health, international, WHO

In late February 2020 the COVID-19 emergency was beginning to emerge into public view and risk and crisis communication researchers and practitioners were preparing to attend the annual International Crisis and Risk Communication Conference in Orlando, Florida, hosted by the University of Central Florida’s Nicholson School of Communication and Media. Then editor Brooke Fisher Liu (2019–2020) asked the incoming editor Audra Diers-Lawson (2020–2022) what she thought of
pitching a special issue on COVID-19 to the journal’s editor-in-chief, Timothy Sellnow. They believed it was an important special issue for the journal as did Sellnow and the Nicholson School of Communication and Media, the journal’s sponsor. Just a week or two later in March and only a few days before the World Health Organization (WHO) declared the COVID-19 pandemic during the ICRCC conference, I was recruited as the guest editor for the journal’s first special issue with a focus on the COVID-19 crisis and risk communication. At the conference’s closing ceremony, the special call for the COVID-19 special issue was officially announced by the journal.

As Liu and Viens (2020) advocated in their reflection on the research gaps in the field of risk and crisis communication, our research needs to “expand its horizons with a more global perspective that better recognizes the work, theories, and differences around the world” such as “crises that span boundaries, including public health outbreaks” (p. 10). This special issue, focusing on the COVID-19 pandemic, a global public health crisis defining our time, responds to this call and directly contributes to closing research gaps by being nimble and responsive to emerging global risk, crisis, and emergency issues around the world (Liu & Iannaccone, 2020).

**Joint Effort of a Global Community of Crisis and Risk Communication Scholars**

Between then and early December of 2020, we received an enormous amount of interest in publishing the special issue. As one of the first academic journals in our field to have a special call on COVID-19, we were uniquely positioned to receive scholarly works studying the risk and crisis communication aspects of COVID-19, especially how it is being communicated and responded to at the earlier stage of the pandemic embedded with high uncertainty, ambiguity, and complexity. This angle, aligning with the journal’s aim, understanding and tackling the challenge of COVID-19 at the close intersection of crisis and risk communication (Seeger, 2018) with an emphasis on human and mediated communication
issues (Liu & Iannacone, 2020), differentiates our special issue from other COVID-19 special issues announced in other journals.

Between mid-December of 2020 to late March of 2021, a total of 52 crisis and risk communication scholars worldwide were committed to and completed their reviews for a large volume of submissions to the special issue (see Appendix for a full list of special issue reviewers and institutions). Articles submitted, reviewed, and included by the special issue are from both academic and nonacademic institutions in diverse locations around the globe. The enthusiasm demonstrated in a diverse group of manuscript authors and the commitment dedicated by a diverse taskforce of reviewers (from the journal’s editorial board or post-hoc reviewers) exemplified the journal’s growing community of excellence in risk and crisis communication—providing an outlet for specialists in the field and supporting new scholars from around the world (Liu, 2019; Liu & Iannacone, 2020).

**Advancing Public Health Crisis and Communication Theory and Practice**

The COVID-19 pandemic, with embedded risk and crisis issues of deep penetration and wide-range impact, embodies the unique challenges from public health crises (Nowak & Greenwell, 2021) and contributed to the “sticky crisis” challenges, a new crisis concept first articulated by the University of Georgia’s Crisis Communication Think Tank and later became the foundation for a new book, *Advancing Crisis Communication Effectiveness* (edited by Yan Jin, Bryan Reber, and Glen Nowak, 2021). A “sticky crisis” is caused by industry-wide, complex, and challenging crisis issues that are often intertwined and likely to reoccur in the future, near or afar (Coombs et al., 2021; Reber et al., 2021), impacting organizations, industries, and publics alike. According to Reber and colleagues (2021):

> Sticky crises demand not only a near-instant response, but they may require crisis communicators to see possibilities, understand the potential breadth and scope of an emerging crisis, each which can bring it additional complexities and communication demands. (p. 7)
The COVID-19 pandemic is an embodiment of how a sticky public health crisis exerts its uncertainty, complexity, and severity, the management of which takes joint efforts from both scholars and practitioners around the globe.

Last but not least, as Claeys and Opgenhaffen (2016) pointed out, there is a “scholar-practitioner divide” (p. 233): crisis communicators (also risk communicators, we argue) often do not apply scholarship to inform their crisis response because “theories are too abstract and . . . are not readily applicable by professionals in times of crisis” (p. 238). This sheds light on the journal’s dual mission of extending theory and practice in order to continue closing the divide and bridging the gap by supporting risk and crisis communication scholarship with multidisciplinary contribution that provides advice for both researchers and practitioners as its primary purposes (Liu, 2019).

This special issue, including nine articles contributed by scholars and practitioners around the world and from both academic and non-academic institutions, contributed to the journal’s mission of advancing risk and crisis communication scholarship and practice (Diers-Lawson & Meißner, 2021; Liu, 2019; Liu & Iannacone, 2020; Liu & Viens, 2020; Seeger, 2018), as well as the scholar-practitioner shared vision of tackling the complex and recurring challenges of a sticky crisis (Reber et al., 2021) such as the COVID-19 pandemic, generates new and timely knowledge that advances the practice of the entire profession, which will help prepare organizations and public health authorities worldwide for future public health threats.

The Special Issue: Innovative and Inclusive Research on COVID-19

The special issue reflects the wide range and reach of crisis and risk communication research of the journal (Seeger, 2018), emphasizing quality and impact as demonstrated in developing “new approaches, theories, and insights about crisis and risk communication” (Liu, 2019, p. 9) and advancing crisis and risk communication, especially in public health domain, in terms of both depth and breadth. Below are a preview and reflection on the nine articles
included in the special issue. Together, the COVID-19 pandemic crisis and risk communication issues are examined via qualitative (e.g., textual analysis, interviews, and participant observation) and quantitative approaches (e.g., survey and big-data content analysis) across a wide range of cultures and locations globally (i.e., Austria, Ghana, Greece, Norway, Singapore, Sweden, and the United States). The diversity of authors, topics, and the inclusion of multiple cultures from Africa, Asia, Europe, and North America echo the journal’s call for disseminating scholarship for researchers and professionals worldwide (Liu, 2019).

**Special Issue Articles**

The first three articles set the foundation for reviewing the key frameworks in crisis and risk communication research with in-depth, qualitative analyses of messages conveyed via the voices of government officials and health authorities in different parts of the world (i.e., Ghana, Norway, and the United States), emphasizing the critical role of conveying, evoking, and sustaining trust in government-led public communications at the onset of a health crisis. Grounded in theory, Adu Gyamfi and Amankwah qualitatively analyze 14 speeches delivered by the Ghanaian President on the COVID-19 pandemic in the country to demonstrate how the speeches conveyed information about the pandemic to the public. They identified seven crisis and emergency risk messaging best practices: explain what is known, explain what is not known, explain how or why the event happened, promote action steps, express empathy, express accountability, and express commitment. Voges and Binford turn their textual analysis lens to how state governments in the United States’ communicated about the COVID-19 pandemic as evidenced in governors’ first press release responses across the country. Taking a social trust approach to risk communication and using the external threat variables in the contingency theory of strategic conflict management, they identified five thematic trends revealed in the first round of official state governments’ COVID-19 public communication. Offerdal and colleagues re-envision available means of persuasion by revisiting the classical rhetorical concept of ethos. Based on interviews
and participant observation in public health institutions in Norway, they examine how appeals to ethos may build trust in health authorities’ public communication during the COVID-19 pandemic. They report the value of understanding the rhetorical situation of a pandemic and the importance of active communication with transparency in building public trust in authorities’ risk communication.

The next three articles focus on the perspective of the public on how different stakeholders responded to organizational communication efforts about the COVID-19 pandemic, jointly emphasizing the imperative of transparent communication in facilitating public coping with an ongoing public health crisis. Via a survey among employees, Stranzl and colleagues examine employees’ perception of organizational transparency during the long-lasting situation of the COVID-19 pandemic in Austria. They find that employees’ perception of their organization’s approach to transparency directly influenced their job engagement and disengagement (the latter also mediated through organizational trust and job-specific anxiety), highlighting the importance of transparency during times of high uncertainty and the urgent need to care for employees’ emotional well-being during a crisis. In the context of COVID-19 risk communication in Singapore, by examining comments on five Singapore media outlets’ Facebook pages via big-data content analysis, Chen and colleagues capture what topics are being discussed by the public and the social-psychological processes that characterize Singaporean communities’ reactions to the pandemic and the implemented precautionary measures. With evidence, they argue that understanding individuals’ psychological concerns is a critical first step toward formulating risk communications that may lead to better health outcomes. Taking a slightly different turn, Johansson and colleagues explore a rather-puzzling question: Why don’t Swedes wear face masks during the pandemic? And according to the authors, the answer lies with the consequence of the public’s high (blind) trust in the government (i.e., higher government trust reduces the likelihood of wearing face masks), based on a large Swedish survey fielded during the pandemic. They call for more research on the trust-compliance relationship that might enhance
or harm crisis management effectiveness in facilitating citizens’ crisis coping efforts.

Two in-depth case analyses, via textual and rhetorical analyses, further illustrate not only how organizations communicate about the COVID-19 to the public or stakeholders but also the impact of contexts, locations, and organizational structures and characteristics on the community sense-making process throughout the cycle of crisis management (especially at the pre-crisis planning stages and/or the beginning stages of a crisis). First, Hayes and colleagues explore how rural and urban Texas hospitals in the United States communicated about the COVID-19 pandemic, based on a rhetorical analysis of press releases from these two hospital systems. They find that the use of setting details is effective for the hospitals to ground their health-related information in their specific communities, which made information accessible and attainable but potentially reinforced place-based tensions and inequalities. Aspriadis further provides a case study, via discourse analysis of public briefings and speeches, on how the government officials and public health authorities in Greece managed two waves of COVID-19 in 2020. The author assesses the Greek government’s crisis management efforts by identifying message framing and rhetorical strategies implemented crisis communication procedures and diagnosing their (in)effectiveness in documented outcomes during the two waves of the same public health crisis.

The special issue closes with an article that calls for the need of managing and communicating about invisible hazards. In the context of Norway, Skotnes and colleagues discuss differences between invisible and visible hazards and make a strong case for authorities to be vigilant about the possible differences in risk perception among authorities, the public, and various stakeholders. They point out that invisible hazards (e.g., COVID-19) are often uncertain, complex, and ambiguous risk problems. The findings and implication serve as a strong call for future research and practice that involve citizens, creating trust, and being honest, highlighting trust and transparency keywords in managing complexity, uncertainty, and ambiguity in risk and crisis communication.
Review and Reflection

Although COVID-19 is a global pandemic, crisis and risk research regarding this topic nevertheless has its geographic and thematic bias (Diers-Lawson & Meißner, 2021). Different countries have different characteristics, contributing to the observed uniqueness of how COVID-19 has been communicated about and responded in different geographic locations and cultures (Dryhurst et al., 2020; Petridou & Zahariadis, 2021; Schneider et al., 2021; Subert, 2020). This observation is echoed, loud and clear, in studies included in our special issue. Reflecting upon current COVID-19 crisis and risk communication research, we identify three themes.

The first theme is the essential role of trust in pandemic communication and health crisis management. Trust has been one of the focal concepts studied in risk research (Liu & Mehta, 2020). Since the COVID-19 pandemic, there has been a surge in trust-focused studies in scholarly outlets such as Journal of Risk Research and Journal of Contingencies and Crisis Management (Balog-Way & McComas, 2020; Lee & Li, 2021). Studies included in our special issue examine trust in relation to government communication strategies (e.g., trust in government officials and health authorities in Ghana, Norway, and the United States). Trust in media channels, especially as channels of delivering health risk information (Appleby-Arnold et al., 2019), has become a critical subject of COVID-19 risk research (Schneider et al., 2021). Recent inquiries about the controversial role of new media (e.g., social media), whether it increases or decreases publics’ trust in crisis and risk information (Appleby-Arnold et al., 2019; Nutbeam, 2020), further highlight the urgent need for more in-depth understanding of publics’ trust in different sources and media channels, which vary by country and differ in specific contexts of COVID-19 pandemic communication (Nutbeam, 2020).

The second theme is the urgent need of understanding and tackling misinformation challenges. Effective communication in a pandemic takes an interactive process of information exchanges between individuals, groups, institutions, and even governments. Information disorders, such as the unprecedented surge of misinformation about COVID-19, disrupt exchanges of accurate information and threaten public health and safety. Although
misinformation has been studied by risk communication scholars (Krause et al., 2020) in a relatively substantial range of international perspective (Hansson et al., 2021; Krause et al., 2020; Yoo & Choi, 2019), more research is needed to study different forms of misinformation (with varying shades of facticity) and explore how increased public trust in news media and government authorities might motivate individuals to digest COVID-19 information and act upon recommendations from health authorities (Hansson et al., 2021). As heralded by one of our special issue articles, the rise of COVID-19 misinformation embodies the danger of invisible hazards, the understanding of which, including identifying and analyzing the complex risk characteristics that confound the process of crisis and risk communication, is to be furthered.

The third theme is the increasing diversity of research methods and approaches to crisis and risk communication. Articles in our special issue have exhibited a balance of qualitative approach (e.g., textual analysis, interviews, and participant observation) and quantitative approach (e.g., survey and big-data analysis), which, together, help weave a rich tapestry depicting the interaction of different factors driving COVID-19 communication and interpreting these complex phenomena with culturally grounded insights. By so doing, our special issue directly addresses the need of understanding and addressing “wicked” or persistent problems affecting people globally (Diers-Lawson & Meißner, 2021) by emphasizing international perspectives and methodological diversity in closing knowledge gaps about COVID-19 pandemic communication.

Looking Ahead
The field of crisis and risk communication research, in light of the sticky crisis challenges and the ongoing efforts of bridging the academic-industry gap and the cultural and geographic divides, is at an exciting new era of going both deeper and broader in terms of research depth and impact spread. However, as a global community of scholars that advance theories and research-based insights that provide advice and values to practice, we need to support the growth and address blind spots (Diers-Lawson & Meißner, 2021).

Directly echoing the call for more research better reflecting the global environment and diverse crisis and risk contexts
(Diers-Lawson & Meißner, 2021), this special issue, using the COVID-19 pandemic as a focal point (mandating cross-cultural and multi-perspective approaches), exhibits innovative and inclusive scholarship that advances crisis and risk communication theory and practice, contributing to tackling highly sticky crisis issues with their recurrent and severe nature (Coombs et al., 2021; Reber et al., 2021).

To close, as Liu and Iannacone (2020) mentioned, “while the world’s attention remains on the COVID-19 pandemic, we must rise to the challenge of disseminating research that can support responses to this crisis and the ones that we will face in the future” (p. 140). It is an honor to be the special issue editor, working with the entire editorial team and our community of scholars and practitioners to learn from the past, reflect on the present, and inspire what is to come near and afar.

ORCID

Yan Jin  https://orcid.org/0000-0003-4228-5529
Sung In Choi  https://orcid.org/0000-0002-9208-6758
Audra Diers-Lawson  https://orcid.org/0000-0003-2584-5061

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Appendix
List of Reviewers for COVID-19 Special Issue

Doug Ashwell, Massey University, New Zealand
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Misse Wester, Lund University, Sweden
Chelsea Woods, Virginia Polytechnic Institute and State University, United States
Sifan Xu, University of Tennessee, United States
Camila Espina Young, National Institute of Standards and Technology, United States
Effective Communication during a Global Health Crisis: A Content Analysis of Presidential Addresses on the COVID-19 Pandemic in Ghana

Prince Adu Gyamfi1 and Adwoa Sikayena Amankwah2

1. College of Liberal Arts, Purdue University, West Lafayette, IN, USA
2. University of Professional Studies, Accra (UPSA), Ghana

ABSTRACT

The COVID-19 pandemic is causing incessant disruption to the social and economic lives of societies. Public health and crisis communicators have recommended some best practices in crisis and emergency risk messaging for effective health messages during pandemics. Thus, this study utilized seven crisis and emergency risk messaging best practices to qualitatively analyze 14 speeches delivered by the Ghanaian President on the COVID-19 pandemic in the country to demonstrate how the speeches conveyed information about the pandemic to the public. The study found that all seven best practices (i.e., explain what is known, explain what is not known, explain how or why the event happened, promote action steps, express empathy, express accountability, and express commitment) were demonstrated in all the 14 speeches. Implications for practice are discussed.

KEYWORDS: public health messages, crisis communication, risk communication, COVID-19, presidential addresses

The global coronavirus disease (COVID-19) continues to have a serious impact on social and economic activities (World Health Organization [WHO], 2020). As many as 215 countries and territories have recorded COVID-19 cases (Centers for Disease Control and Prevention [CDC], 2020); and over 104 million
confirmed cases and 2 million deaths have been reported globally, and new cases and deaths are reported each day (WHO, 2021). Thus, to contain the spread of COVID-19, countries have put in place stringent public health and social measures such as limitations on domestic and international travels, stay-at-home orders, and closing down of schools, shops, and religious centers (WHO, 2020). This global pandemic has the characteristics of both risk and crisis. As a risk, the COVID-19 pandemic threatens things people value such as social and religious gatherings including economic activities (Fischhoff & Kadvany, 2011) and also brings uncertainties about “questions over the incubation period, infectivity before symptoms, seasonal dimensions, the specificity of the disease for certain population groups, re-infection rates, and perhaps most importantly, the mortality rate” (Balog-Way & McComas, 2020, p. 839). Also, as a crisis, it is unanticipated and widespread, threatens priority goals, and requires rapid response to attenuate harm (T. L. Sellnow & Seeger, 2013).

Communication, particularly public health communication, plays an important role in protecting public health during pandemics (B. Reynolds & Seeger, 2005), and such “communications must successfully instruct, inform, and motivate appropriate self-protective behaviors; update risk information; build trust in officials; and dispel rumors” (Vaughan & Tinker, 2009, p. 324). Due to the important role public health communication plays during pandemics, governments of countries affected by the COVID-19 pandemic have been providing information through public addresses to their citizens about what to do and measures undertaken to contain the spread of the virus. For instance, when the WHO officially declared COVID-19 a global pandemic in March, the president of Ghana, Nana Akufo Addo, immediately addressed the nation about measures undertaken by the government even though then the country was yet to record a COVID-19 case. According to crisis communicators, this timely information from the president served to prepare and ready the public for the COVID-19 pandemic occurrence in the country (Coombs, 2009; T. L. Sellnow, 2015). T. L. Sellnow (2015) articulates that providing information to the public (i.e., stakeholders) during the pre-crisis phase can potentially diminish the harm caused by the crisis.
Between March 2020 and January 2021, the president has delivered 23 public addresses on the pandemic, and the country has recorded over 68,559 cases and 433 deaths (WHO, 2021).

Communication scholars have developed risk and crisis communication theories and models that “outline factors necessary for successful communication at different phases of crisis or emergency response” (Parmer et al., 2016, p. 1215). While risk and crisis communication were originally distinct subfields, they have evolved to be more interactive, culminating into an integrative model called the crisis and emergency risk communication (CERC) (Palenchar, 2009; B. Reynolds, 2002; B. Reynolds & Quinn, 2008; Veil et al., 2008). The CERC model has been applied in public health contexts such as the H1N1 influenza pandemic (B. Reynolds & Quinn, 2008; Seeger et al., 2009), Hurricane Katrina (Vandeford et al., 2007), and Hurricane Maria in Puerto Rico (Andrade et al., 2020). Previous studies have recommended best practices for developing and disseminating messages during crises or disasters (Parmer et al., 2016; D. D. Sellnow et al., 2019; T. Sellnow & Sellnow, 2010). For example, D. D. Sellnow and colleagues (2017) empirically tested the IDEA (internalization, distribution, explanation, action) model in the domain of food contamination recalls and found that the IDEA model messages were more effective than control messages in motivating participants to engage in self-protective behaviors. However, the IDEA model does not include the elements of accountability and commitment which are considered important components of crisis and risk messages (CDC, 2014; B. J. Reynolds, 2011). Parmer and colleagues (2016) have extended the CERC model, particularly the content dimension, to develop seven best practices of crisis and emergency risk messages. This modified version of the CERC model captures accountability and commitment components, making it more comprehensive than the IDEA model as a crisis and risk message design framework. Thus, the present study utilized Parmer et al.’s version of the CERC model as its framework. Parmer et al. used these best practices to examine media coverage of foodborne epidemics and natural disasters and found that six of the seven best practices appeared in less than 25% of stories. Their findings further revealed that information communicated to the public about the foodborne illness...
outbreak was different from those of natural disaster events. Specifically, foodborne illness outbreak stories exhibited more best practices of crisis and emergency risk messages than natural disaster stories. However, their study has several limitations of which the current study seeks to remedy.

First, their study focused on media content which might be different from the content of presidential public addresses because media content is primarily influenced by journalistic values such as prominence, proximity, currency, timeliness, conflict, human interest, and bizarreness (Boyd, 1994). These journalistic values influence how media cover crises and emergencies. Thus, this study seeks to utilize these seven best practices to investigate the president’s public addresses on the COVID-19 pandemic in Ghana. More precisely, it is unclear whether these public addresses follow the best practices that are recommended to make messages most effective for protecting public health during an emergency or crisis. Second, their study focused on story length and the total number of best practices per story but did not examine qualitatively how these best practices were used in news stories. Thus, the present study adds to the literature on the crisis and emergency risk messaging best practices by employing a qualitative approach (i.e., thematic analysis) to examine how these seven best practices are used in the public addresses to convey information about the pandemic to the public. Lastly, their study focused on foodborne illness outbreak and natural disaster contexts which are different from the COVID-19 pandemic as their findings showed differences between foodborne illness outbreak stories and natural disaster stories (i.e., foodborne illness stories had more best practices than natural disaster stories). The purpose of this study is to provide practical guidelines for public health and crisis communicators on how to develop and disseminate effective public health messages through presidential public addresses to inform the public about what to do to protect themselves during pandemics. We first review existing literature focusing on the crisis and risk communication models. We then describe the research questions and present a thematic content analysis study.
The Crisis and Emergency Risk Communication (CERC) Model

After the events of 9/11 and the anthrax crises, the CDC recognized that a more integrative approach to risk, crisis, and emergency response communication was needed “in an era of bioterrorism as well as other emerging global threats to public health” (B. Reynolds & Seeger, 2005, p. 49). Hence, the crisis and emergency risk communication (CERC) model was developed. This model, which is practice-oriented, has both process and content dimensions (Parmer et al., 2016). Whereas the process dimension evaluates the crisis or emergency and designs response to events unfolding at five different phases of the crisis: pre-crisis, initial event, maintenance, resolution, and evaluation (CDC, 2014; Quinn, 2008; T. L. Sellnow & Seeger, 2013), the content dimension conveys “information to the public at large and the affected parties” (Parmer et al., 2016, p. 1215). The current study focuses on the content dimension.

Seeger (2006) argues, “Best practices are useful for packaging learned principles in a way that facilitates their communication both within and between organizations and, ultimately, their adoption” (p. 233). Thus, Seeger (2006) has recommended ten best practices for effective crisis communication: (1) process approaches and policy development; (2) pre-event planning; (3) partnership with the public; (4) listen to the public’s concerns and understand the audience; (5) honesty, candor, and openness; (6) collaborate and coordinate with credible sources; (7) meet the needs of the media and remain accessible; (8) communicate with compassion, concern, and empathy; (9) accept uncertainty and ambiguity; and (10) messages of self-efficacy. Seeger (2006) argues, “Messages of self-efficacy are most effective when they have specific characteristics” (p. 242). Some of these message characteristics include specific harm-reducing actions, what can be done to help others, and a range of activities. These messages of self-efficacy should contain clear and meaningful actions and be consistent as well (Seeger, 2006). However, the messages of self-efficacy best practice have some limitations. They do not express empathy, care, and compassion for people affected by the crisis or the disaster. Also, they do not express commitment and accountability. All these components are crucial for designing effective crisis and risk messages.
The Internalization, Distribution, Explanation, and Action (IDEA) Model

Crisis communicators strongly recommend the dissemination of instructional messages to the public during crises or emergencies (Coombs, 2009; T. L. Sellnow, 2015). According to Coombs, instructional information should seek to tell the target audience what they need to do to protect themselves from the crisis. Specifically, scholars like Mileti, Fitzpatrick, and Sorensen articulate that such messages must meet two basic criteria (T. L. Sellnow, 2015). First, the message must be accessible to the public. Second, the message must account for limitations in literacy and numeracy among the target population, so the content of the message is easily understood by all. In this regard, T. L. Sellnow and Sellnow (2013) have developed the IDEA model for designing effective instructional risk and crisis messages. The IDEA model, which is grounded in experiential learning, has four aspects: internalization, distribution, explanation, and action. The internalization, explanation, and action aspects focus on message content, and the distribution aspect focuses on channels through which messages are sent. Internalization messages express care, compassion, and the impact of the crisis. Explanation messages address what is happening and why, and what is being done in response. Finally, action messages recommend specific action steps to take or not take to protect oneself and/or loved ones. Previous studies have empirically tested the IDEA model in the domain of food contamination (Escherichia coli) outbreak in ground beef and blended meat (D. D. Sellnow et al., 2015; D. D. Sellnow et al., 2017; D. D. Sellnow et al., 2019). The findings consistently show that the IDEA model is an effective instructional risk and crisis message design framework.

However, the IDEA model lacks breadth as it overlooks the elements of accountability and commitment which are crucial for designing crisis and risk messages. Extending the CERC model, particularly its content dimension, Parmer et al. (2016) have developed seven best practices for designing crisis and emergency risks messages. These practices are:
Explain what is known at the time about the events’ impact on human health; explain what is not known about the threat to human health; explain how or why the event happened; promote action steps the reader or viewer can take to reduce the personal threat; express empathy about the threat to human health; express accountability; and express commitment. (Parmer et al., 2016, p. 1216)

Parmer et al.’s (2016) seven best practices are the most comprehensive; therefore, their modified version of the CERC model provided the framework for the present study. The following research questions guided this study:

RQ1: What crisis and emergency risk messaging best practices are demonstrated in the public addresses of the Ghanaian president on the COVID-19 pandemic?

RQ2: How are the crisis and emergency risk messaging best practices used in the public addresses of the Ghanaian president to convey information about the COVID-19 pandemic to the public?

Method

The study used a basic qualitative research approach to analyze the content of public addresses or speeches of the Ghanaian president about the COVID-19 pandemic in Ghana. As the researchers were interested in understanding how the president’s speeches constructed and conveyed meanings about the pandemic, this research approach was most appropriate to “uncover and interpret these meanings” (Merriam & Tisdell, 2016, p. 25). The president’s public addresses were chosen as this study’s data for three reasons. First, these public addresses served as direct sources of information about updates on the pandemic and measures taken to control the spread of the virus for both the media and the general public in the country. The implication was that these speeches were influencing the media agenda on COVID-19 related issues as well as shaping the general public’s perception of the pandemic in the country. Second, these speeches were easily accessible as public documents for analysis. Third, studies focusing on crisis and emergency risk messaging are mostly conducted among populations in developed
countries with little or no studies on developing countries like Ghana. According to Henrich et al. (2010), most behavioral science studies have heavily relied on samples from Western, educated, industrialized, rich, and democratic (WEIRD) populations; and this heavy reliance “may cause researchers to miss important dimensions of variations, and devote undue attention to behavioral tendencies that are unusual in a global context” (p. 80). Thus, the unit of analysis for this study was the public address of the Ghanaian president about the COVID-19 pandemic in Ghana.

**Sampling and Data Analysis**

The president has delivered a total number of 23 speeches about the pandemic between March 2020 and January 2021; that is a period of 11 months. However, this study selected 14 speeches that were consecutively delivered between March 11 and July 26 as its sample because the number of the COVID-19 cases increased significantly in the country between those 5-month periods. These 14 speeches were 60 single-spaced pages of text—a total of 27,732 words. Before the data analysis, the first and second authors met to discuss the data analysis method and procedures that would be most effective for answering this study’s research questions. Thus, Braun and Clarke’s (2006) six steps for conducting thematic analysis were utilized. This thematic analysis enabled the researchers to identify, analyze, and report themes within the data (Braun & Clarke, 2006). The authors independently analyzed the data. According to Lincoln and Guba (1985), the use of different investigators (referred to as the technique of triangulation) during data analysis in qualitative research boosts “the probability [those] findings” (p. 305) and enhances the credibility of interpretations. To make sure that the study’s research questions were adequately answered, the seven crisis and emergency risk messaging best practices developed by Parmer et al. (2016) guided the analysis. These seven practices included “explain what is known,” “explain what is not known,” “explain how or why the event happened,” “promote action steps,” “express empathy,” “express accountability,” and “express commitment.”
First, all the 14 speeches were retrieved in Word documents, and each researcher read and reread these speeches to familiarize themselves with the data. During this immersion stage, notes were taken to produce a list of ideas. Second, this list of ideas was used to generate initial codes from the data. The data was coded around the crisis and emergency risk messaging best practices. Coding was manually done by using highlighters to “indicate potential patterns” (Braun & Clarke, 2006, p. 89). A list of different codes was produced. Third, different codes were sorted into potential themes. For example, codes sharing similar meanings were grouped and were given a common name or term to differentiate one group of codes from another group of codes. At the fourth stage, the researchers met to discuss the initial themes they had each identified. The researchers reviewed these initially identified themes together to ensure that each theme reflected the crisis and emergency risk messaging best practices. They settled on 12 themes and finally merged them into three overarching themes: health, sociocultural, and economic dimensions. Lastly, some rich, thick excerpts from the data were included in the write-up of the report to boost the credibility of this study’s findings (Miles & Huberman, 1994).

Results

The results showed that all the seven best practices of crisis and emergency risk messaging recommended by Parmer and others (2016) were present in all the 14 presidential addresses. See Table 1 for which types of addresses each best practice appeared in. The “explain what is known” and “promote action steps” best practices were demonstrated in all the 14 speeches. Accountability best practice appeared in 13 of the 14 speeches. The “express empathy” and “express commitment” best practices appeared in 11 of the 14 speeches delivered by the Ghanaian president. Finally, the “explain how or why the pandemic happened” and “explain what is not known” best practices appeared in 2 of the 14 speeches. The results also revealed that at least three best practices were present in every speech that the Ghanaian president delivered on the COVID-19 pandemic.
<table>
<thead>
<tr>
<th>Types of Address</th>
<th>Best Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update No. 1</td>
<td>Explain what is known; Promote action steps; Express accountability</td>
</tr>
<tr>
<td>Update No. 2</td>
<td>Explain what is known; Promote action steps; Express empathy; Express accountability; Express commitment</td>
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<tr>
<td>Update No. 3</td>
<td>Explain what is known; Promote action steps; Express empathy; Express accountability; Express commitment</td>
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<tr>
<td>Update No. 4</td>
<td>Explain what is known; Promote action steps; Express empathy; Express accountability; Express commitment</td>
</tr>
<tr>
<td>Update No. 5</td>
<td>Explain what is known; Promote action steps; Express empathy; Express accountability</td>
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<tr>
<td>Update No. 6</td>
<td>Explain what is known; Promote action steps; Express empathy; Express accountability; Express commitment</td>
</tr>
<tr>
<td>Update No. 7</td>
<td>Explain what is known; Explain what is not known; Explain how or why; Promote action steps; Express empathy; Express accountability; Express commitment</td>
</tr>
<tr>
<td>Update No. 8</td>
<td>Explain what is known; Explain how or why; Promote action steps; Express accountability</td>
</tr>
<tr>
<td>Update No. 9</td>
<td>Explain what is known; Promote action steps; Express empathy; Express commitment</td>
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<tr>
<td>Update No. 10</td>
<td>Explain what is known; Promote action steps; Express empathy; Express accountability; Express commitment</td>
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<tr>
<td>Update No. 11</td>
<td>Explain what is known; Promote action steps; Express empathy; Express accountability; Express commitment</td>
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<tr>
<td>Update No. 12</td>
<td>Explain what is known; Promote action steps; Express empathy; Express accountability; Express commitment</td>
</tr>
<tr>
<td>Update No. 13</td>
<td>Explain what is known; Promote action steps; Express accountability; Express commitment</td>
</tr>
<tr>
<td>Update No. 14</td>
<td>Explain what is known; Explain what is not known; Promote action steps; Express empathy; Express accountability; Express commitment</td>
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</table>
The thematic analysis of the 14 speeches produced 12 concepts aligned with the seven action steps in the CERC model. These concepts were merged into three main themes: health, sociocultural, and economic dimensions.

**Health Dimension**
Three subthemes emerged to promote action steps on health that the reader or viewer could take to reduce their threat: personal hygiene, mask-wearing, and healthy lifestyle. In terms of what was known at the time about the pandemic’s impact on human health, two subthemes emerged: prevalence and severity of the virus. One subtheme emerged to explain how or why the pandemic happened: the importation of the virus.

**Personal hygiene.** This subtheme reflected actions that individuals, groups, and organizations could take to reduce personal and corporate threats. These speeches recommended personal and regular washing of hands with soap under running water, using alcohol-based sanitizers after using public facilities, and keeping reusable face masks clean, while promptly disposing of disposable ones after use. Groups providing public services such as public transport owners were also required to observe enhanced hygiene protocols by providing the required amenities.

**Mask-wearing.** This consistently promoted actions that individuals could take to protect themselves from the virus by wearing their face masks whenever they went out even as the cases of infections surged and the government grappled with space to quarantine infected persons; “all Ghanaians must remember that the wearing of masks is now mandatory. Leaving our homes without a face mask or face covering on is an offense . . . the frontline is your front door.”

**Healthy lifestyle.** The addresses also promoted a health strand that involved eating a balanced diet and having regular physical activities. The public was advised to eat locally produced foods such as millet, kontomire (coco-yam leaves), millet, cashew nuts, crabs, plantain, okra, brown rice, and mushroom which contained
Vitamin A, B6, C, D, and E, to boost their immune system. The speeches also advised the public to engage in regular exercises because “it is crucial that we improve our fitness levels and adopt healthy eating practices that incorporate our local foodstuffs, which boost our immune systems.”

Prevalence of the virus. This subtheme captured the extent to which the virus had spread in the country. All 14 speeches conveyed information about the number of confirmed cases recorded in the country: “At first glance, it is alarming to see that thirty-two thousand, nine hundred and sixty-nine (32,969) people have so far contracted the virus.” The speeches also indicated communities within the country with high prevalence and infection rates enabling the public to determine whether their communities were part of the infected areas or not, prompting any subsequent personal and group actions that were required to be taken.

Severity of the virus. This subtheme explained the seriousness of the virus. The speeches reported the number of deaths as a result of the virus to inform the public that the virus, if not taken seriously, could kill them. However, the speeches gave a positive impression that people were not dying as much as was initially feared when the country’s death rates were compared to the global rate. “With 54 deaths currently reported by the Ghana Health Service thus far in Ghana, the ratio of deaths to positive cases stands at 0.4%, compared to the global average of 5.5%, and the African average of 2.6%.” Though the death rate was reported to communicate the seriousness of the virus, relatively higher recovery rates were recorded and reported to inform the public that infected persons could recover if they reported early to hospitals for testing, isolation, and treatment. This recovery rate information sought to encourage persons who experienced symptoms similar to those of the virus to get tested and treated if they tested positive.

Importation of the virus. This subtheme captured how or why the pandemic happened in the country. The speeches indicated that the virus was imported into the country by travelers returning from Europe, Asia, and neighboring countries like Burkina
Faso, Ivory Coast, and Togo. “Seventy-nine percent (79%) of the three hundred and seventy-eight (378) confirmed cases are, thus, imported. As has been established, the overwhelming majority of confirmed cases have come from travelers or from people who have come into contact with travelers.” In addition to mandatory testing and treatment for all travelers, they had to undergo a mandatory 14-day quarantine.

**Sociocultural Dimension**

Under this broad theme, five subthemes emerged from the presidential addresses. Three subthemes evolved to enhance action steps the reader or viewer could take to mitigate any danger to their persons. They were staying at home, social distancing, and stigmatization. These three subthemes speak to the ethos of Ghanaians as warm and hospitable people. One subtheme emerged to express accountability and collective responsibility. Another subtheme emerged to express empathy and understanding of one’s discomfort.

**Staying at home.** The president, in his speeches, ordered people living in most infected areas to stay at home. “If you must go out, it must only be to get essential items such as food, medicine, water, undertaking banking transactions, or to use public toilet facilities. But, as much as possible, stay at home.” To ensure compliance, security personnel were deployed to enforce this order.

**Social distancing.** The speeches repeatedly encouraged the public to adhere to the social distancing protocol to protect themselves from the virus. Specifically, the speeches admonished the public to stop shaking hands (a phenomenon common in the Ghanaian culture) and avoid unnecessary close body contact. To ensure strict adherence to this protocol, the speeches announced the suspension of all public gatherings such as conferences, workshops, funerals, parties, nightclubs, drinking spots, beaches, festivals, political rallies, religious activities, and sporting events.

**Stigmatization.** This subtheme was directly lifted from the speeches because it accurately captured what was known about
those who had recovered from the virus. People who had recovered from the virus were being stigmatized by their families and community members, and the president in four of his speeches sought to address those concerns.

I remain concerned about the stigma associated with this disease. Stories of persons who have recovered from this disease, and are being shunned by their relatives and communities, are a source of considerable worry to me because they undermine our efforts to fight it. There is nothing shameful about testing positive. We do not have to lose our sense of community because of this pandemic.

This statement sought to reinforce Ghanaian’s sense of community, belonging, and oneness before the outbreak of the pandemic and to discourage the public from stigmatizing persons who had recovered from the virus. These speeches also recognized that the stigmatization was due to the public’s fear that the recovered persons could infect others. As a way of dealing with that fear, these speeches provided scientific information from the WHO and scientists to prove that recovered persons could not infect others. “Persons, who have tested positive for the virus once they recover, do not pose any danger whatsoever to anyone because the scientists tell us that they can no longer spread the virus.”

Collective responsibility. The speeches communicated the notion of collective responsibility to express accountability. The president frequently used first-person plural pronouns such as “we,” “us,” “our,” and “ourselves” to indicate that the fight against the virus required all efforts from everyone. “This fight, fellow Ghanaians, cannot be that of Government alone. It is for all of us. We can defeat this virus if we all commit ourselves to respect all the measures that have been outlined.” The speeches also described citizens who refused to adhere to the outlined social measures as unpatriotic. The description sought to suggest that such individuals did not love their country and were therefore not willing to sacrifice for
the good of their country. This might to some extent cause public disaffection toward individuals seen not wearing face masks.

**Understanding of one’s discomfort.** This theme expressed empathy about the threat of the pandemic to human health. The president acknowledged the disruptions this virus had brought to people’s lives and therefore wished for an immediate return to normalcy. “Fellow Ghanaians, I, like you, would love to see an end to these restrictions. I know the difficulties each and every one of you has been through over the last two months. You had to alter completely your way of life. . . .” Empathizing with the public, the president expressed that he stood by the people. In other words, he understood and shared their struggles through this difficult time. “We are in this together, and [the] Government will stand by you . . . What we do not know how to do is to bring people back to life.”

**Economic Dimension**

This overarching theme was developed through the provision of soft loans and food to vulnerable and needy people and the pledge for protection of lives emerging as an action step assuring citizens of the government’s commitment.

**Protection of lives.** This subtheme reflected the president’s commitment to fighting the pandemic. The speeches portrayed the determination of the president to protect the lives of teachers, students, and citizenry. “. . . the oath of office I swore on 7th January 2017 demands that I dedicatemyself to the service and well-being of you, the Ghanaian people. It is my job to protect you, and I am determined to do just that.” To prove that he was determined to protect lives and get the public’s trust, the president frequently mentioned the distribution of protective equipment to frontline health workers and students.
Discussion

Crisis and risk communicators have recommended best practices in crisis and emergency risk messaging that can make messages most effective for protecting public health during an emergency or crisis. The results of this study provide insights into some practical ways that can help public health and crisis communicators develop and disseminate health messages through presidential public speeches to inform the public about what they can do to protect themselves during a global pandemic. The findings show that all the seven best practices of crisis and emergency risk messages recommended by Parmer et al. (2016) were expressed in all 14 presidential speeches. At least three best practices were demonstrated in every speech that the Ghanaian president delivered. On the contrary, on average there were more than two best practices included in each media story found in Parmer et al.’s (2016) study. While their study found that the “empathy” best practice was expressed in the fewest stories, the “explain how or why” and “explain what is not known” best practices appeared in 2 of the 14 speeches—the least frequent of the seven best practices in the present study. A plausible explanation for the differences in frequency of the best practices in presidential addresses and media coverage may be the underlying values through which these contexts view or perceive emergencies or crises. For instance, media contents are primarily influenced by journalistic values such as prominence, proximity, currency, timeliness, conflict, human interest, and bizarreness (Boyd, 1994). On the other hand, political values (such as order, liberty, and caring for those who need help) most likely influence the contents of presidential public addresses or speeches (Swedlow, 2008).

Specifically, empathy was frequently used in 11 of the 14 speeches to indicate that the government understood the disruption this pandemic had brought to the lives of the public, and they (the government) would stand by them. This indicates care for the citizens. The broad literature on crisis and emergency risk communication argues that empathy and caring (i.e., words that acknowledge what people are feeling) help to build public trust, making it easy for public health communicators to effectively persuade the
public to take recommended actions to protect themselves during a pandemic (B. Reynolds et al., 2002; B. J. Reynolds, 2011; Seeger, 2006). This study also found that the presidential speeches recommended some simple tasks (e.g., wearing a mask, washing hands with soap under running water, staying at home, eating a balanced diet, exercising regularly, etc.) that the public could take to protect themselves from the virus. Previous research indicates that such simple tasks would “help people gain back a sense of control and help keep them motivated to stay tuned to what is happening” during a crisis or emergency (CDC, 2014, p. 41).

Furthermore, this study found that the “explain what is known” and “promote action steps” best practices appeared in all 14 speeches. Previous works revealed that instructional risk and crisis messages designed based on the IDEA model emphasizing elements of internalization, explanation, and action effectively encouraged participants to engage in self-protective behaviors during food crises (D. D. Sellnow et al., 2015; D. D. Sellnow et al., 2017; & D. D. Sellnow et al., 2019). The implication is that the presidential speeches might have been effective in encouraging the public to take the recommended behaviors (e.g., mask-wearing, social distancing, or handwashing) to protect themselves from the virus. However, the infrequent appearance of the “explain how or why” and “explain what is not known” best practices in the presidential speeches suggests that the public might have limited information or knowledge about factors that caused the pandemic to happen. This might be counterproductive to messages encouraging self-protective behaviors. The study also found that social stigma against COVID-19 recovered patients was addressed in the presidential speeches. Studies on social stigma argue that stigmatization associated with highly contagious diseases can significantly increase internal sufferings of infected persons as well as discourage infected or suspected infected persons from seeking health care, making the containment of such diseases extremely difficult (Budhwani & Sun, 2020; Parker & Aggleton, 2003; Ramaci et al., 2020).

Notably, the presidential speeches provided scientific information to reassure the public that recovered persons could no longer infect others. According to Misra and colleagues (2020), promoting
effective messages against COVID-19 related stigma could help to deal with any misinformation associated with this pandemic. Though the presidential speeches strongly spoke against social stigma associated with recovered persons, the speeches’ consistent mention of importation of the virus in the country seemed to implicitly portray travelers, especially from Europe, as carriers of the virus. This might have implicitly encouraged social stigma against persons who had recently returned from abroad. Supporting this finding, Logie and Turan (2020) contend that “COVID-19 travel restrictions may also facilitate stigma and xenophobia by reproducing the social construction of illness as a foreign invasion, in turn reinforcing social hierarchies and power inequalities” (p. 2004).

Additionally, the crisis communication literature suggests that organizations or agencies should communicate their intentions to their stakeholders (i.e., public or audience) by explicitly showing commitment to stand with their publics throughout the crisis (CDC, 2014; B. J. Reynolds, 2011). This can be done by “stating upfront, your organization’s objectives for the emergency response and committing to reaching them” (CDC, 2014, p. 55). This study found that the speeches consistently mentioned the government’s five key objectives of responding to this pandemic: “limit and stop the importation of the virus; contain its spread; provide adequate care for the sick; limit the impact of the virus on social and economic life; and inspire the expansion of our domestic capability and deepen our self-reliance.” The speeches demonstrated this commitment through the government’s provision of protective equipment to all healthcare workers, food for individuals and homes in affected areas of restrictions, soft loans for micro-, small-, and medium-sized local business, and absorption of water and electricity bills for all citizens.

**Theoretical Implications**

Though the crisis and emergency risk communication is not a theory per se, it is an integrative model that has been “validated by the experiences of health communicators and public affairs specialists who have completed the training, conducted the training,
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and executed the principles . . . ” (Veil et al., 2008, p. 29S). Veil and colleagues call it a grounded theory. They argue that risk messages influence public perceptions, expectations, and behavior during a crisis. As a contribution, this study demonstrates that presidential public speeches could be used to shape public risk perceptions about their vulnerability to the virus and how severe the virus could become if not taken seriously during a pandemic. The literature on belief models suggests that individuals would take actions to avoid unpleasant occurrences if they believed that it was likely to happen to them and it would be severe (Rosenstock, 1974). Veil et al. also propose that risk reduction during crises should be systematically examined; and psychological research suggests that when people’s feelings of fear, anxiety, or dread are not effectively managed during a crisis, they most likely feel hopeless or helpless (Benight & Bandura, 2004; CDC, 2014). The present findings demonstrate that the public’s heightened fear or anxiety about the severity of a virus during a pandemic could be reduced by giving them hope through public health messages that infected persons could recover when tested early and received early treatment after testing positive.

Furthermore, the broad literature on crisis communication explains accountability as “being accountable for the decisions you make and the outcomes that arise from those decisions. The public and interested stakeholders will expect organizations to keep their promises—stated and implicit” (B. J. Reynolds, 2011, p. 210). Expanding on this definition of accountability, this study’s findings articulate that public health messages through presidential addresses could encourage the public to be accountable to themselves by adhering to protective measures during a pandemic. Public health messages could characterize individuals refusing to adhere to protective measures as unpatriotic. Portraying or framing such unpatriotic individuals as unwilling to sacrifice for the good and safety of their country could potentially motivate most people to adhere to recommended protective measures. Additionally, this study demonstrates that first-person plural pronouns such as “we,” “us,” “our,” and “ourselves” could be used in public health messages to communicate the notion of collective responsibility to
make the public feel more accountable to themselves and others during a pandemic. This messaging approach could be most effective and persuasive in collectivist cultures or societies which tend to “emphasize loyalty to the group . . . ” (Darwish & Huber, 2003, p. 49). In collectivist societies, people are more concerned about the needs and interests of others than themselves; and this concern for others influences individuals’ decisions and actions in a society (Darwish & Huber, 2003; Eaton & Louw, 2000; LeFebvre & Franke, 2013). During a global pandemic where individuals’ actions (such as mask-wearing, social distancing, or handwashing with soap under running water) significantly impact others, highlighting the concern for protecting others in public health messages would most likely influence the public to take recommended actions in collectivist societies. Ghana is a collectivist society (LeFebvre & Franke, 2013); thus, the speeches employed first-person plural pronouns to encourage the public to feel more accountable to others (the collective interest) by wearing their nose masks, practicing social distance, avoiding handshakes, washing their hands with soap under running water, and so forth.

**Practical Implications**

This study’s findings provide some practical insights for effective crisis and emergency risk messaging during a pandemic. First, public health messages should promote simple action steps that the public could take to protect themselves. According to social cognitive research, perceived self-efficacy can either enhance or hinder cognitive processes such that individuals with low self-efficacy would experience stress when faced with a difficult task (Bandura, 1991 & 1994). Thus, during a pandemic where the majority of people with different levels of perceived self-efficacy are impacted, public health communicators should promote protective actions that are easy and simple for most people to take on their own. Seeger (2006) suggests that self-efficacy messages should contain clear and meaningful actions and be consistent as well. Second, public health communicators should take proactive steps to promote effective messages that address social stigma during a global pandemic. For example, stigma-reduction
messages promoting social distancing should be designed in ways that “foster empathy while simultaneously transforming physical distancing into a normal and sustained practice until the pandemic is over” (Logie & Turan, 2020, p. 2004). Also, the findings show that there are different layers of the stigma associated with the COVID-19 pandemic (i.e., stigmatization of infected persons and travelers). Recent research shows COVID-19 related stigma associated with Asians (Budhwani & Sun, 2020). Thus, a multi-approach to effective messaging should be developed and disseminated to address different stigma issues during a pandemic. Lastly, public health communicators should carefully consider the media or channels through which crisis and emergency risk messages are disseminated. The findings indicate that different channels have different values that influence their message content. These varied values largely determine which best practices are emphasized in public health messages. D. D. Sellnow et al. (2017) suggest “traditional media channels remain an effective means for communicating instructional risk and crisis messages and should not be discounted” (p. 13).

Limitations and Future Research Directions

Due to the deductive nature of this study (i.e., using Parmer et al’s (2016) recommended seven crisis and emergency risk messaging best practices), we could not examine the language of the presidential speeches. Research based on CERC indicates that communicating messages full of technical jargon and euphemism during crises implies “insecurity and lack of honesty” (CDC, 2014, p. 56). Avoiding them helps build trust with the audience or the public (CDC, 2014). Further, crisis communicators suggest that crisis messages must account for limitations in literacy and numeracy among the target population, so the content of the message is easily understood by all (D. D. Sellnow, 2015). Hence, a 6th-grade reading and comprehension level has been recommended (CDC, 2014). Future research should examine the language used in presidential speeches during pandemics. Another limitation of this study was that we only focused on the written speeches and did not look at the delivery aspect (both verbal and non-verbal) of
these speeches. Crisis communication research and practice recommend that spokespersons should “convey calmness and confidence through posture, tone of voice, facial expressions, and gestures” to help their audience to “remain calm and confident in their own actions” (CDC, 2014, p. 68). Future research should examine the delivery (both verbal and non-verbal) of presidential speeches during pandemics.

**Conclusion**

The study has provided insightful information on how global pandemics can be communicated from a developing country context. Contrary to Parmer et al.’s (2016) findings but in sync with their seven crisis and emergency risk messaging best practices, this study concludes that appropriate expression of empathy; concise, systematic, and simple risk communication messages; and a sense of community gleaned through individual and collective accountability could mitigate the effects of social stigma. This could also act as a balm to the public’s psyche on the COVID-19 pandemic, culminating in better management of pandemics.

**ORCID**

Prince Adu Gyamfi  🌐 https://orcid.org/0000-0003-0047-5359  
Adwoa Sikayena Amankwah  🌐 https://orcid.org/0000-0002-5106-0746

**References**


SO ORDERED: A Textual Analysis of United States’ Governors’ Press Release Responses to the COVID-19 Pandemic

Taylor S. Voges and Matthew T. Binford

1. Grady College of Journalism and Mass Communication, University of Georgia, Athens, GA, USA

ABSTRACT

The COVID-19 pandemic presents a unique environment from which each individual state, in the United States, has been forced to address their publics. In order to understand how each state has engaged with this pandemic, a textual analysis of each state’s governor’s first press release was conducted; five thematic trends were identified. Through use of the social trust approach to risk communication and the contingency theory of strategic conflict management (using external threat variables), the implications of these press releases are discussed.

KEYWORDS: risk communication, contingency theory, textual analysis

The year 2020 will perhaps be best remembered as the first year in which the novel coronavirus, COVID-19, began to spread widely around the world. By the middle of 2020, the United States had become the global epicenter for the novel coronavirus pandemic with millions of confirmed cases and hundreds of thousands of deaths as a result of the virus (Johns Hopkins, 2020). Given the rapid growth of the coronavirus and the staggeringly high numbers of cases and deaths, it is important to briefly recount what the pandemic looked like in its earliest days in the United States.

It is certainly possible that the virus had been silently spreading in the United States before the first verified case of COVID-19.
However, the first confirmed case of COVID-19 in the United States that the public was made aware of was reported in Seattle, Washington, in mid-January 2020 (McNamara, 2020). The arrival of the novel coronavirus in the United States was not initially met with widespread panic. Though relatively soon after, state governors begin to formally declare states of emergency in response to rising cases, beginning with Governor Jay Inslee of Washington on February 29, 2020. Notably, February 29, 2020, the day Washington State declared a state of emergency was also initially believed to be the first coronavirus death in the United States after a patient died in Washington (Acevedo & Burke, 2020).

This death in Washington, while it was the first COVID-19 death to be reported to the public, was not actually the first death from the new virus. In April of 2020, medical examiners in California posthumously identified that a person in Santa Clara County California died due to complications from the novel coronavirus on February 6, 2020, which is several weeks before the patient in Washington (Chappell, 2020). After Washington became the first state to declare a state of emergency, other states quickly followed suit. By mid-March nearly all 50 states had declared a state of emergency, and on March 13 President Donald Trump declared a national state of emergency (FEMA, 2020). On March 13—the day a national state of emergency was declared—the Johns Hopkins Coronavirus Resource Center noted that there were a total of 2,157 cases in the United States. The last governor to formally declare a state of emergency for his state was Gov. Jim Justice (R) of West Virginia who declared a state of emergency on March 16. This issuance of a state of emergency was done in West Virginia before the state had even seen its first confirmed case of COVID-19, though the first person in the state did test positive the next day, on March 17 (West Virginia Department of Health and Human Resources, 2020). As these events demonstrate, the United States’ governors dealt with the initial effects of the coronavirus before a national state of emergency was declared. As such, the interest for this study is state governors as they were the initial actors and leaders during the pandemic’s early stages.
At its core, the United States is a constitutional federal republic, which means that there is both a national governing system that oversees the collective 50 states and local governing bodies—both state and municipal (U.S. Government, n.d.). The leader of the national government is the United States President while the leader of the state government(s) is the governor. Each United States Governor acts as a leader to his or her state, so constituents look to their governor for guidance and leadership. To illustrate, governors tend to respond differently to threats (e.g., Hurricane Harvey), but these previous threats were more centralized to certain locations. The COVID-19 pandemic holistically hit the United States—and the world—but it was still up to the different levels of government to lead. Thus, it becomes important to understand the United States’ state governors’ early communications with the public. The very beginning of the pandemic in the United States is briefly outlined from the first reported case to the day the last state governor declared a state of emergency.

While one can consider that governors acted quickly to declare states of emergencies in efforts to prepare their states for the novel coronavirus, it is also worth noting that this was a general time of confusion for many people as to what the proper response to COVID-19 was. For example, by the summer of 2020 it was widely accepted among the scientific community that wearing a mask was one of the most effective ways of slowing the spread of the novel coronavirus (CDC, 2020). However, this message was not always one made clear to the public. At one point in early March, Surgeon General Jerome Adams said in an interview that wearing masks can increase one’s chances of getting the novel coronavirus (Schreckinger, 2020). This example was brought up not to show a shortcoming of communication from government officials, but rather to highlight how confusing the earliest days of the COVID-19 pandemic were as the public and the scientific community alike struggled to understand this threat.

It is important to unearth as many insights as possible about initial communications from those in positions of power, such as state governors, to better understand how novel threats should
be communicated. State governors are responsible for decisions about coronavirus policy, but also are responsible for how that policy is communicated to the public. The communication coming from their offices not only drives discourse in their state, but can also impact how the novel coronavirus is perceived nationwide. Provided that initial communication sets the tone for the total communications about an issue, it is, therefore, important to review what initial communications were made. Thus, a review of each state’s governor’s initial press release was conducted to glean insights into the risk management strategies taken during the early stages of the COVID-19 pandemic.

**Literature Review**

This study examines the communication about the coronavirus pandemic through a textual analysis of how each state’s governor has approached the COVID-19 virus in a press release—situated within risk communication framework and the contingency theory of strategic conflict management.

**Risk Communication**

Risk communication is a broad field of communication research—one that is connected to various fields like public relations, communication management, and risk management. Risk management, as defined by Stern and Fineberg (1996), includes “things, forces, or circumstances that pose danger to people or to what they value” (Stern & Fineberg, 1996, as cited in Rhee, 2008). Indeed, public relations is at times considered an extension of strategic management of risks (Rhee, 2008). Organizations can use public relations as a way to develop risk management strategies and communicate with stakeholders during these risky times (Rhee, 2008). Effective risk management requires communication practitioners to help stakeholders understand how the organization made a rational decision concerning the risk and how the decision upholds both the stakeholders’ and organization’s ideas, interests, and values (Brummette & Sisco, 2018).

Public relations practitioners, and any other type of risk management team, need to be aware of the differences and prepare
strategies that are tailored to each situation. As part of this preparedness, scholars have worked to develop various approaches to risk communication, such as the mental models approach (e.g., Morgan et al. 2002), the convergence communication approach (e.g., Rogers & Kincaid, 1981), the three-challenge approach (e.g., Rowan, 1991), the hazard plus outrage approach (e.g., Sandman, 1987), and the social trust approach.

Each of these approaches center around a different risk communication core. For mental models, the core is found in cognitive psychology and is used to (1) help identify to whom the risk communication should be directed to and (2) the processing of the risk communication (Lundgren & McMakin, 2013). The mental models approach is used to develop audience-centered perspectives on different risks. In contrast, the convergence communication approach views risk communication as a long and iterative process that is constantly based around the organization communicating and the audience it is communicating with—values and preferences (culturally or otherwise) constantly affect the process (Lundgren & McMakin, 2013).

The approach of interest, however, is the social trust approach to risk communication. This approach developed within an area of social science research interested in a person’s—or an audience’s—trust in an organization, such as a governmental institution. Cvetkovich and Winter (2002) worked to develop this approach through projects that he worked on for the United States, such as with the United States Department of Agriculture. The core of the social trust approach is based around values, evaluations, and judgments (Cvetkovich & Winter, 2002). Fundamentally, having trust is seen as a way to reduce complexities and complications; the trust is fluid, however, and has the potential to be broken (Cvetkovich & Winter, 2002). Cvetkovich and Winter propose that trust is part of an evaluative process—one that helps a person make judgments. This iteration of trust is fundamental but incomplete. Trust goes beyond having confidence in another person or in an organization. Indeed, trust is made up of inferences—both seen and unseen—about another’s motives, attitudes, and beliefs (Cvetkovich & Winter, 2002). Trust built on what is seen (i.e., actions) provides the evaluator with inferences about the actor’s
attitudes and beliefs just as much as trust that is built on what is unseen—something that happened at a distance with no obvious opportunity for the evaluator to directly observe (Cvetkovich & Winter, 2002).

Beyond what is seen and what is unseen, trust is also built on the congruence of values (Cvetkovich & Winter, 2002). The evaluator takes personal values and places them against the entity being evaluated. Similar values for the evaluator and the evaluated entity have shown to lead to higher social trust (Earle & Cvetkovich, 1997). Further, the type of situation at hand—environmental risk versus a health risk—helps determine the type of values at play and to what extent those values matter (Cvetkovich & Winter, 2002).

Through this approach to social trust, it is apparent that audiences use various processes to judge an organization. Social trust—from the audience perspective of an organization—is founded in the people’s ability to understand the organization’s goals and values (Lundgren & McMakin, 2013). If an audience member has negative attitudes toward an organization, any negative information they encounter regarding the organization will only work to reinforce the distrust toward the organization (Lundgren & McMakin, 2013). The reverse is also true: positive attitudes will be reinforced when the audience encounters positive information about an organization, which results in increased trust. Indeed, social trust can be thought of as one of the most important aspects of risk communication (Lundgren & McMakin, 2013).

The social trust approach ultimately sets the foundation for the strategic conflict management of risks, specifically that of COVID-19. As discussed, audiences use trust as a way to evaluate and judge an organization’s communication—or the organization’s presentation of a risk. The contingency theory of strategic conflict management, in turn, presents a number of variables that organizations use to help them determine the best stance to take during conflicts and times of uncertainty (Cancel et al., 1997). These perspectives are taken in tandem because the social trust approach to risk communication demonstrates how imperative it is for organizations—such as governmental entities—to understand how their social trust standings are determined by their audiences. Further, the contingency theory of strategic conflict management views...
stance-making as fluid and depending on an organization’s evaluation of the situation. In this case, the situation—COVID-19—is viewed through the contingency theory because it is imperative to see how the local leaders of the United States presented the issue to their respective constituents.

**Contingency Theory**

Contingency theory, often referred to as the “it depends” theory, attempts to account for real-world complexities (Pang et al., 2016). The core of contingency theory is the continuum, which attributes the flexibility organization’s use when determining a stance on an issue; the continuum ranges from pure advocacy to pure accommodation (Cancel et al., 1997). The stance an organization is said to take depends on a variety of factors, 86 in total, and how such factors influence organizational stance along the continuum (Cancel et al., 1997). The contingency theory allows for a specific analysis of predetermined variables (i.e., those identified by Cancel et al., 1997) and provides researchers with the opportunity to analyze organizational stances in accordance with both the continuum and the variables.

It is important to note, however, that an organization’s stance is not a legitimate enactment of all 86 variables at once; instead, the contingency theory works to demonstrate how certain types of variables may be more salient than others during specific situations (Cancel et al., 1997). Based on this logic, researchers can investigate specific types of variable constructs, such as with Jin et al. (2015). They propose five subgroups out of the total five theoretical constructs in order to determine how the grouping of variables outweigh each other in terms of organizational decision-making.

Constructs are subgroups that contain more defined groupings of variables (Jin et al., 2015; Reber & Cameron, 2003). Within these constructs are variables that are considered influential based on the contingency theory (Cancel et al., 1997). Based on the profound number of variables, it is typical for researchers to choose which variables they consider important to their research. Thus, for the novel coronavirus scenario, a focus on a subset of external variables is used in order to understand how governors
strategically communicated to their constituents about the risk of the novel coronavirus.

**External Variables**

The external variables are split into five subgroups: (1) threats, (2) industry environment, (3) general political/social environment/external culture, (4) the external public, and (5) issue under question (Jin et al., 2015). Each external variable subgroup includes a list of specific variables—the specific variables of interest are within the issue under question theoretical construct. Issue under question is specifically of interest—as COVID-19 constituted the active issue. Under issue under question are the variables issue size, issue stake, and issue complexity.

**Issue Under Question.** The variables proposed within *issue under question* include issue size, issue stake, and issue complexity. These variables have been tested in various studies, such as with Dant and Schul (1992), and later included in the contingency theory’s list of variables as those considered influential regarding organizational stance decision-making (Cancel et al., 1997). An issue’s *size* encompasses how an actor defines the scope of the issue itself; it is further considered important as it helps develop norm responses that will later serve as precedents for the issue itself (Dant & Schul, 1992). However, it is important to acknowledge the ramifications of precedent-setting for an issue (Dant & Schul, 1992). An issue’s *stake* refers to what threats, gains, or losses the issue holds over those it could potentially affect (Dant & Schul, 1992). Further, stake is used to better distinguish what is meant by issue size with the former referring to the implications of the issue and the latter referring more to the scope of the issue. An issue’s *complexity* is a variable that has the potential to influence conflict management actions (Dant & Schul, 1992). It is proposed that issues with high complexity typically invoke solution tactics that include the use of politics and bargaining while issues with low complexity are typically solved by using problem-solving and persuasion tactics (Dant & Schul, 1992). Thus, it can be inferred that issues with high complexity result in communication tactics that are generally more abstract.
Given the relative unknowns regarding the COVID-19 virus issue (both at the time of the press releases and after), it is prudent to understand how each state's governor chose to describe the issue to their respective constituents. Further, an analysis of governor messaging provides general insights into each state's chosen risk communication tactics. Thus, the following research question is posed:

RQ: How does each state's governor refer to the following external factors—issue size, issue stake, issue complexity—in their initial COVID-19 press release?

Method

This study employs a qualitative textual analysis approach to understand the implications of each state's governor's response to the COVID-19 pandemic. Specifically, a textual analysis allows for a thematic and systematic analysis of selected texts—the intent being to garner a deeper understanding of the population by looking for commonalities and underlying trends (Fürsich, 2009). Thus, this study employs this research technique and examined each state's governor's first press release response to the COVID-19 pandemic. Each press release was selected based on specific criteria: the release was the first mention of the pandemic and the release came from the governor's office. This study did not focus on releases put forth by other state departments, such as the health department. The reason for doing so is that the governor is a figurehead typically known to the public, interacts more consistently with the public, has the authority to issue decrees, and is an elected official. Thus, 50 press releases were analyzed—one for each state—for thematic elements.

This textual analysis sought to analyze the first public press releases that each state governor released dealing with the novel coronavirus pandemic in 2020. To find this information, the researchers went to each state government’s website and looked for press release archives. Once found, the researchers searched for press releases mentioning COVID-19 or the novel coronavirus pandemic. The researchers then looked for the earliest substantive press releases that included information about the state

Notably, many states’ first official press releases simply were statements saying that reporters could expect more information at a later predetermined time. These press releases were not considered substantive and were not included in the sample. Instead, when the researchers found these as the first official coronavirus statement they used the next earliest official press release. For Arizona, the first press release from the state’s governor’s office (Ducey-R) was a video conference, so the transcription for it was analyzed. The press releases analyzed for this study is holistic—all states’ governor’s press releases were included in the analysis.

Results

After reviewing each state’s governor’s initial COVID-19 press release (n = 50), the analysis revealed four persistent themes evidencing the relative unknowns regarding the beginning of the COVID-19 pandemic as seen in the United States. These themes include COVID-19 contraction risk reassurance, a bolstering of state actions, citizen readiness actions, and COVID-19 case travel scapegoating. Each theme directly relates to the theoretical foundations of social trust and the contingency theory of strategic conflict management. The press releases were specifically from the governor’s office and averaged out to around one to two pages each. A deeper analysis of the press releases reveals how little state governments actually knew about COVID-19, which suggests that their relative blasé attitude may have been attributed to the general sense of uncertainty many felt while the virus spread across the United States.

COVID-19 Contraction Risk Reassurance

(Issue Size and Complexity)

Throughout the press releases, it was common to find verbiage that held tones of reassurance. The reassurance, however, came in two
different forms—in either a reference to the low number of cases or as an indirect downplay of the novel coronavirus itself.

**Number of COVID-19 Cases (Issue Size)**

State governors used the platform as a place to provide citizens with the number of COVID-19 cases, which typically totaled out to less than 10 (at the time of the press release): “. . . there are no current diagnosed cases in the state, Montana . . . ” (Gov. Bullock, MT-D); “There are no confirmed cases of COVID-19 in the State of Nevada” (Gov. Sisolak, NV-D); “. . . while no one in Utah has yet tested positive for COVID-19 . . . ” (Gov. Herbert, UT-R). These instances indirectly acknowledge the presence of COVID-19 cases elsewhere, but they double as reassurances. Each state’s respective citizens can take the lack of cases to mean that the state is successfully keeping the virus out of the state instead of taking the lack of cases as meaning that the virus has not yet reached the state.

Further instances of reassurances came from describing the well-being of a previously sick individual. Indeed, some governors would reference how well a sick individual is doing—thus providing citizens with hope. Governor Cooper (NC-D) stated in a press release, “. . . the person is doing well and is insulated at home.” Additional states provided similar statements, including Governor Cuomo (NY-D) who released a statement saying, “the patient has respiratory symptoms, but is not in serious condition and has been in a controlled situation since arriving to New York.” These statements came with assumptions that states had control over the contracted cases—again lending to the reassurance of their citizens. This type of reassurance can potentially be construed as accidental over-reassurance regarding the severity of the novel coronavirus.

**Downplaying COVID-19 (Issue Complexity)**

The time frame of these press releases—spanning from late January to the middle of March in 2020—demonstrates the beginning attempts at communicating about a virus that is virtually unknown. Some of these communication attempts resulted in a downplay of the novel virus itself—along with its severities. Governor Pritzker (IL-D) released a statement that included the following:
The immediate health risk to the state remains low. While the latest available information suggests that person-to-person spread will continue to occur and additional cases are likely to be identified in the United States, most cases of COVID-19 cause a mild illness. In very rare cases people infected with the virus have died. Additionally, to date, data shows that children are less likely to become ill. (Gov. Pritzker, IL-D)

Other governors used similar language in their initial press releases including—but not limited to—Governor Beshear (KY-R), “. . . even though Kentuckians are at low risk for this virus . . .”; Governor Little (ID-R), “. . . the individual risk for coronavirus in Idaho is still low . . .”; Governor DeSantis (FL-R), “. . . the threat COVID-19 poses to Florida remains low . . .”; Governor Mills (MA-D), “. . . no cases of coronavirus in Maine as of today, and the risk to our state remains low. . . .” These instances provide their stakeholders with an indirect downplay of the virus’s potential severity.

Governors—from multiple states—provided their constituents with verbiage that indirectly downplayed the virus’s severity. Similarly, the inclusion of the number of cases—or even the lack of a COVID-19 case in a state—contributed to a reassured public. Even though these press releases were released in the early stages of the COVID-19 pandemic, the “low risk for the virus” statements indirectly reassured citizens far more than necessary.

**COVID-19 Case Travel Scapegoating (Issue Stake)**

States repeatedly mentioned that those who should most be concerned with contracting the novel coronavirus were those who had recently traveled to places that were thought to be COVID-19 hotspots. Many governor’s offices such as Kelly’s (KS-D) specifically noted that individuals should only isolate if they have:

Recently traveled to China, Iran, Italy, Japan and South Korea and have developed fever with lower respiratory symptoms including cough and shortness of breath within 14 days of your travel, or have had contact with someone with a laboratory-confirmed case of COVID-19. (Gov. Kelly, KS-D)
Another instance of a state governor’s office discussing citizens traveling as the way the novel coronavirus is spreading in their state comes out of Indiana where they note that,

“This morning, Gov. Holcomb and the Indiana State Department of Health confirmed the first case of coronavirus in a Marion County resident with a recent history of travel to a Boston event tied to several cases in other states.” (Gov. Holcomb, IN-R)

Though many governors’ offices noted the dangers of traveling to countries that were coronavirus hotspots, or in some cases even states that were coronavirus hotspots, most downplayed the possibility of person-to-person transmission within their own states. Few states specifically mentioned the possibility that the novel coronavirus could be widely spread from person-to-person among those who had not recently traveled. Connecticut is one of the few states that noted that there was a significant danger that COVID-19 could be spread between individuals who had not been to China or another coronavirus hotspot. Instead the governor’s office in Connecticut hypothesized how the virus could be spread between individuals noting that this virus is similar to SARS and MERS:

When person-to-person spread has occurred with MERS and SARS, it is thought to have happened via respiratory droplets produced when an infected person coughs or sneezes, like how influenza and other respiratory pathogens spread. Spread of SARS and MERS between people has generally occurred between close contacts. (Gov. Lamont, CT-D)

**Bolstering of State Actions (Issue Complexity)**

Governors used these press releases as an opportunity to show how well the states were handling the COVID-19 virus. These instances typically came through in the form of state preparedness or in referencing how other states were faring in comparison to their own. Governor Kemp’s office (GA-R) released a statement that included the following, “. . . fortunately, the Peach State boasts some of the world’s most advanced healthcare experts . . . to make sure that
we are ready for any scenario.” Governor Edwards (LA-D) stated, “. . . Louisiana has been preparing since the COVID-19 outbreak in mainland China.” Governor Ige (HI-D) mentioned a specific healthcare liaison and professed his faith in this expert’s ability. Notably, Governor Herbert (UT-R) put Utah’s number of cases (at the time, zero) against that of the neighboring states. These instances demonstrate how different states used their preparedness tactics and overall virus readiness as a way to demonstrate competency. Governor Sisolak (NV-D) provided the following statement:

I know that took a long time, but I want Nevadans to understand the large-scale collaboration taking place across the state, and the commitment of each of the individuals who have been working on this issue for months. They represent hundreds of more Nevadans in their respective fields and regions they serve—all waking up every day with the same mission: to prepare and protect the health and safety of the public. (Gov. Sisolak, NV-D)

Like many others, this demonstrates how governors attempted to provide citizens with evidence about how the situation is being taken seriously and is given much thought. Essentially, these statements applauded their own efforts.

Many initial COVID-19 press releases included mentions of a new state task force—including mentions of the highly-qualified members. Governor Abbot (TX-R), Governor Gordon (WY-R), Governor Scott (VT-R), Governor Lee (TN-R), and Governor Bullock (MO-D) are among the governors that cited their coronavirus task force efforts. However, some of these announcements only included the development of a task force (and potentially a list of experts) with little mention of the task force purpose beyond the coronavirus, “. . . to help us be even better prepared, this group of experts will work closely with me and my administration, along with local, state, and federal agencies as we continue to monitor any potential developments” (Gov. Lee, TN-R).

**Citizen Readiness Actions (Issue Stake)**

Many of the sample texts included basic instructions for citizens as to how they can protect themselves from COVID-19. A recurring
message found in many of the press releases was that the best method for protecting oneself was similar to how one would protect themselves from the flu: “the best way to prevent infection is to take precautions to avoid exposure to this virus, which are similar to the precautions you take to avoid the flu” (Gov. Abbott TX-R). In addition to abstractly telling people to protect themselves in the same way one would protect themselves from the flu it was common for states to have a bullet point list of concrete steps residents could take to best protect themselves and their families, such as this partial statement from the Virginia governor’s office:

Although COVID-19 is not spreading in Virginia and the risk here is low, officials said Virginians can take precautions to prevent the potential spread of this disease:
► Avoid close contact with people who are sick.
► Avoid touching your eyes, nose, and mouth with unwashed hands.
► Wash your hands often with soap and warm water for at least 20 seconds.
► Use alcohol-based hand sanitizer that contains at least 60 percent alcohol if soap and water are unavailable.
► Cover your cough or sneeze with a tissue, then throw the tissue in the trash.

(Gov. Northam VA-D)

This list from the governor’s office of Virginia is one example of the bulleted lists of COVID-19 precautions found in the press releases.

This concrete language can be very important so that people have simple and easy to follow instructions; however, it should be noted that often the language states used to give these instructions often invoked feelings of condescension—as if a parent were speaking to a child. Most notably, before listing some of the ways Nevadans can slow the spread of coronavirus the governor’s press release stated, “I realize this is going to sound a bit like the advice I used to give my daughters when they were little, but please bear with me” (Gov. Sisolak NV-D).

**Discussion**

While the lack of information about a novel virus is to be expected at the onset of a pandemic, the communication tactics
and language used by governors in their initial COVID-19 press releases did not appropriately set the tone for what would become a global pandemic. Cvetkovich and Winters (2008) provides ample logic and reasoning behind social trust: the evaluator—in this case various clusters of American constituents—process and ultimately judge the entity being evaluated—the U.S. governors. Provided the results, it is apparent that the U.S. governors’ foundation for addressing the COVID-19 pandemic was incomplete.

Given the rather sporadic types of press releases, it is unclear as to whether or not a majority of the states had a set communication risk plan in place. Indeed, less than 10 states referred to the overall issue complexity of the issue and, when they did refer to the issue complexity, the statements were more overreaching than definitive. Governors did not use the press release platform to emphasize the unknown elements of this novel coronavirus. Instead, the press releases heavily reiterated the number of cases (or the lack thereof) and the low probability of the coronavirus reaching their specific state.

In references to the low risk, governors chose to provide either comparisons or mentions of the virus in places outside of their specific state. This specificity is reflective of the external variable size—governors reflected on the issue’s size by using other locations’ interactions with the virus as a way to either reassure their citizens or downplay the risk to the immediate state. Thus, the issue size is present but the legitimacy of the issue size as relevant to the actual state at hand was considered minimal in virtually all press releases. The contingency theory encapsulates organizational stance movement as organizations deliver communications (Cancel et al., 1997; Jin et al., 2015) and, looking at the initial COVID-19 press releases, it is clear that governors used the issue size as a way to advocate for their own thoughts on the novel coronavirus. Governors referred to the virus and its impact as if in a vacuum that included only the state in question. Thus, COVID-19’s issue size was indirectly used to reassure rather than as a platform for providing citizens with communication about potential unknowns.

An issue’s stake helps establish how involved those affected will become with the assumption that higher stakes lead to higher levels of involvement (Dant & Schul, 1992). In terms of stake as
related to the novel coronavirus, virtually no governors provided information that referred to tangible losses, such as loss of life. It is important to note that the number of cases and deaths had not reached the thousands, as they had by midway 2020. The few press releases that mentioned the known symptoms of COVID-19 also typically positioned the symptoms against flu symptoms. This choice to capture the then-known symptoms of COVID-19 against the flu symptoms points to stance choices are further reflective of issue stake. Likening novelty to something known may be helpful, but the downside of such an association is that the issue’s stake is too likened to the flu. While the COVID-19 pandemic was an increasingly ongoing and unprecedented event, the social trust approach of risk communication blatantly describes the fallout organizations face: audience members who have positive attitudes toward the organization will use positive information to reinforce their attitudes and trust in that organization (Cvetkovich & Winter, 2002). However, the reverse is also true, which means that state constituents who felt that their governor’s initial response to the pandemic was lacking were likely to have a lowered level of trust as a result of the press release. Regardless, the press releases did not provide definitive and tangible stakes about the novel coronavirus issue. There was an intense lack of precaution statements about COVID-19 and what the disease could do to a society.

While it is impossible to predict the future with precise certainty, the complete disregard for any mentions about the novel coronavirus’s potential severity is astounding. Governors chose to reiterate the apparent “low risk” of COVID-19 with little mention of the ramifications of the disease itself. This apparent “low risk” is a direct reference to the issue’s stake and, provided that these press releases are from the states’ governor’s offices, offered constituents guidance on how to view the virus. The strategic language used in the press releases attempted to mitigate uneasy feelings and reassure stakeholders about COVID-19. This reassurance can be reflexive of an attempt to gain or maintain social trust between the state and the people, but the long-term consequences of these stance choices were not obviously considered.

Based on the analysis, it is apparent that the press statements made little mention of the novel virus’s complexity, which may
be attributed to the complete lack of information about what is at stake due to the virus. Governors prioritized reassurance of stakeholders over communication about an unknown virus as seen through the pattern of reassurance language present in virtually every press release. When pitted against the lack of information on the complexity of the virus, it is clear how governor offices chose to placate their citizens instead of admitting to the general public the unknowns about the virus. Communication about an issue’s stakes, as described and researched by Dant and Schul (1992), are connected to the level of involvement by way of the message receivers. Thus, it can be inferred that the dismissal of the novel virus complexity informs communication about the potential stakes and—since the stakes were virtually never mentioned— influenced how citizens determined their own levels of involvement for the coronavirus issue. While contingency theory holds that a number of factors influence an organization’s stance, it is important to note the weight of the issue itself is something that the governors did not emphasize in their press releases. It is suggestive then that other factors influenced the decision-making for each state’s stance on the COVID-19 issue.

The COVID-19 case reassurance theme was prevalent in most to all press releases—demonstrating how governors used these initial communication efforts to reassure and placate their constituents. While it is important to not incite mass panic upon the onset of a novel virus, the level of reassurance found in the press releases inferred that the virus was not something that citizens should be concerned about. The language used had the opposite effect of a mass panic. It provided citizens with comfort, a sense of hope, and potentially gave citizens the go-ahead to dismiss any real concerns about the severity of the virus. Governors typically included the number of cases in their states—and at the time most were at zero or one—and then proceeded to use language that inferred that the virus would not reach the state or was contained by way of state preparedness measures. Despite these measures, virtually no statements then referenced the complexities surrounding a novel virus. This attempt to reassure constituents lends to conversations of social trust. The references to personal, state connections (i.e., “Nevadans” or “Arizonians”) demonstrates how the governors and
state entities are attempting to provide constituents with common ground and values to rally around. The appeal to immediate state safety is a similar appeal to congruent values—assuming that the constituents are invested in their state actions. Though the values important for a situation are in part determined by the situation (Cvetkovich & Winter, 2002), it is clear that the states attempted to offer their constituents with values and reassurances that would work in favor of social trust.

Perhaps unsurprisingly, the majority of governors used the initial COVID-19 press releases as a place to bolster state efforts and actions. The theme, bolstering state actions, demonstrated how some states used these communication efforts as an avenue to showcase all their great work (e.g., taskforce creations and convening with politicians or doctors). It is important for the public to know what their respective states are doing to work against the impact of the novel coronavirus, but the manner in which the governors presented these efforts came off as prideful and boastful. Indeed, some states even used other state efforts as a comparison against their own. These references implied that some states were acting better than others when COVID-19 was concerned. Unfortunately, this contributes to feelings of complacency or a false sense of security as many governors made statements that include variations of the phrase “low risk for Kentuckians” (with a substitute for the appropriate state). While some of the press releases included information about the efforts each state made toward the fight against the coronavirus, it is clear that some of these bolstering statements were made to make citizens proud of how well their government was handling the situation.

COVID-19 case travel scapegoating was a trend for those states who reported a COVID-19 case in their state. It was apparent that governors wished to provide an explanation as to how these affected individuals contracted the virus and such efforts included using travel as the necessary scapegoat. This both worked to distance the infected individual(s) from the measures the state took to minimize virus contraction and acted as a platform for the states to tell their constituents how well their preparedness and testing abilities worked. Again, this trend demonstrates how governors assuaged general public concerns about COVID-19. Indeed, it is
human nature to be curious about such matters, but the way the statements were written made it seem like the main way to contract the virus was through travel—specifically travel to certain areas of the world.

When it came to addressing how citizens should act, some states either included a list of actions they likened to flu prevention measures or forewent including preventative measures entirely. The analysis further demonstrated how some statements included language that came off as condescending or as if speaking to a child (e.g., Gov. Sisolak, NV-D). Many governors reiterated the importance of handwashing by reminding their constituents of when they (the constituents) first learned to wash hands. Some mentioned the importance of good hygiene, but they failed to mention what this might entail. This level of condescension is appalling and provides insight into how these elected officials see their constituents. On top of the general personal health comments, the officials urged their constituents to treat the threat of this virus as either the flu or another natural disaster (e.g., Gov. Wolfe, PA-D). Within the example press releases, governors urged citizens to prepare with weeks’ worth of supplies—stockpiling over-the-counter drugs, food, and water. Taking the press releases in totality, however, it becomes clear how some of the information and instructions seem contradictory—with no mention of the issue’s stakes or complexity but asking citizens to prepare on a natural disaster level.

Further, it can be inferred that the reassurance found in the press releases contributed to the unintentional downplaying of the COVID-19 virus itself. Indeed, the highest executive elected officials—de facto leaders—refused or failed to admit the unknowns about COVID-19.

Governors are literally the highest elected official a state can have and their statements make local, state, and federal news cycles. Their statements have the potential to reach millions of Americans, yet their single-minded attention toward public reassurance and state pride resulted in a drastic overlook for citizen welfare. Each governor declares an oath that requires them to uphold the office of the state and its citizens and such duty was lacking during the early coronavirus times. Despite the fact that some governors even reiterated their commitment to safeguarding
citizens, omitting statements that referred to the issue’s complexity and potential stake hurt their constituents. Further, it is argued that state governors worked to maintain social trust with their citizens, but given their ultimate stance choices—as seen through depictions of COVID-19’s size, stake, and complexity—opened them up to scrutiny. A hyper focus on immediate reassurance—an attempt to speak to constituents through their predetermined social trust contract—omitted the possibility that more, new information about the COVID-19 pandemic might change governors’ initial stances.

**Limitations and Future Directions**

This study only looks to state government press releases specifically from each governor’s office. The analysis focuses solely on analyzing the press releases, but given the nature of the results, it is important for future research to use ethical frameworks to gain insights into the moral rightness of these press releases. Additionally, future research can—and should—look to early press releases from state health departments in order to understand how health professionals (1) understood the COVID-19 pandemic and (2) communicated that understanding to stakeholders. Health professionals are increasingly being looked to as thought-leaders, so an analysis of what and how these communications manifest is of utmost importance.

**Conclusion**

The COVID-19 issue was a dynamic and ongoing situation—especially during the onset of the global pandemic—even though few governors referred to it as such. Given their prestigious powers and elected status, it is assumed that governors act with the best interest of their constituents at heart. However, the insights illustrate how the governors’ attitudes toward the complexity of this novel virus set the tone for their constituents—how self-serving some of the communications was—with states applauding their lack of cases and their efforts to keep the virus out of their states. Despite their efforts, COVID-19 ended up reaching all 50 states
and infected millions of people (Johns Hopkins, 2020). Months into the outbreak, it is apparent how confused, uncertain, and unwilling to trust some groups of people are—perhaps because of the tone their governor set at the beginning of the pandemic. Risk management plans are lacking. It is impossible to predict natural disasters, but it is possible to prepare for them through both actions and communication plans. Initial communication efforts need to better include information relevant to constituents with acknowledgments of shortcomings tied with their communications about state actions. While it is unknowable whether or not better initial communication by way of each state’s governor’s office would affect the outcome of the COVID-19 pandemic in the United States, it is apparent that there is work to be done in terms of risk communication and state priorities.

ORCID
Taylor S. Voges https://orcid.org/0000-0003-2702-6836
Matthew T. Binford https://orcid.org/0000-0002-6352-3584

References


Public Ethos in the Pandemic Rhetorical Situation: Strategies for Building Trust in Authorities’ Risk Communication

Truls Strand Offerdal1, Sine Nørholm Just2, and Øyvind Ihlen1

1. Department of Media and Communication, University of Oslo, Oslo, Norway
2. Roskilde University, Denmark

ABSTRACT

As illustrated by the COVID-19 pandemic, risk and crisis communication are crucial responsibilities of modern governments. Existing research on risk and crisis communication points to the importance of trust, both as a resource in and an end goal of communicative activities. In this paper, we argue that revisiting the classical rhetorical concept of ethos in combination with the modern concept of the rhetorical situation can contribute to fitting responses in risk and crisis communication. The paper examines how appeals to ethos may build trust in health authorities’ public communication during the COVID-19 pandemic. Through interviews and participant observation in public health institutions that handle the COVID-19 pandemic in Norway, the paper finds that understanding the rhetorical situation of the pandemic allows for a better understanding of the available means of persuasion. For instance, through the active communication of transparency and independence when faced by uncertainty and rapidly changing information.

KEYWORDS: risk communication, crisis communication, pandemic, rhetorical situation, ethos, trust, trustworthiness

The COVID-19 pandemic has shone a light on one of the central aspects of government communication work, namely the ability to ensure that citizens find the public messages, recommendations, and directives given in a time of crisis credible and trustworthy. Various studies on risk and crisis communication...
have emphasized the role of trust in ensuring that messages are heard (e.g., Boyd et al. 2019; Liu et al., 2016), some going so far as calling trust “a primary driver of whether communities positively respond to government communication” (Liu & Mehta, 2020, p. 1). Attempts to establish best practices for risk and crisis communication have also pointed to trust as a central concept (Covello, 2010; Seeger, 2006), especially when a risk situation develops into a crisis (De Vocht et al., 2016).

Despite the consensus on the importance of trust, the concept is often not clearly defined nor conceptualized (Chryssochoidis et al., 2009; Liu & Mehta, 2020). In terms of the practice of establishing, reconstructing, or maintaining trust, literature on risk and crisis communication often points to such aspects as demonstrating honesty, empathy, and competency (Meredith et al., 2007) or openness and shared interest (Eiser et al., 2009). This list of strategies bears a clear resemblance to, and is in part inspired by, the classical rhetorical concept of ethos, defined as the speaker’s demonstration of competency, virtue, and goodwill (Aristotle, trans. 2006; Peters et al., 1997). Generally, trust can be seen as a relational concept, often informed by rational assessment and experiences; a popular definition by Hardin sees trust as “A trusting B to do X” (2001). Trustworthiness can be understood as more of a moral quality, something you are perceived as, in order to support trust being placed in you (Hardin, 1996). We argue that studying trustworthiness through the rhetorical construct of ethos provides a clear foundation for the conceptualization of trust, generally, and holds advantages for the application of the concept within crisis and risk communication, specifically.

First, ethos is a constantly renegotiated quality; it is an evaluation of the communicator that is performed by the audience and based on rhetorical artifacts, communicated at particular times as responses to particular problems (McCroskey, 1966). Second, rhetorical theory allows for a more nuanced understanding of efficient risk and crisis communication; in crisis situations, communication is rarely conducted by one single actor with supreme authority. Instead, the official response to the pandemic is the responsibility of overlapping official actors, from public health institutions (PHIs), such as the U.S. Centers for Disease Control
and Prevention (CDC), to state and local political entities, governments, and decision makers. Here, the modern theory of the rhetorical situation (Bitzer, 1968) may provide a structured process for identifying the constraints and opportunities available to organizations.

In order to investigate how PHIs may draw on ethos-based communication during the rhetorical situation of a pandemic, we have chosen to focus on two such organizations, operating in the national context of Norway. Thus, our research questions are:

RQ1: How did the Norwegian PHIs attempt to strengthen, maintain, or rebuild ethos through their communication during the first 10 months of the COVID-19 pandemic?

RQ2: How were the strategies for strengthening ethos influenced by the rhetorical situation of the pandemic?

RQ3: What are the general implications of the Norwegian PHIs’ use of ethos-based communication in the rhetorical situation of the COVID-19 pandemic for risk and crisis communication?

In order to answer these questions, we have conducted a qualitative study based on interviews and participant observation during Spring and Autumn 2020 in the communication departments of two Norwegian PHIs.

Norway is generally recognized as a country characterized by high trust in institutions and largely built its pandemic response on voluntary adherence to guidelines. So far, the country has avoided some of the more dramatic effects of the pandemic in terms of the numbers affected, without having to resort to more invasive measures, such as curfews (Ursin et al., 2020). Internal weekly reports on trust made available to us consistently indicated that 80 to 90% of the population describe having high trust in the health authorities’ handling of the crisis (4 or 5 on a 5-point scale). We argue that studying the rhetorical construction of trustworthiness in a country where it seems to have been effective, both in the past and during the pandemic, should be of interest to researchers and practitioners of risk and crisis communication.

The paper is structured as follows: We will establish the context of our study by presenting the structure of the Norwegian health
authorities before reviewing the relevant literature and presenting our theoretical framework. Subsequently, we outline the methodological framework and move on to the analysis of our case organizations’ communication work during the first 10 months of the pandemic.

**The Norwegian Health Authorities’ Role in Communicating the Pandemic Response**

Most countries have one or several PHIs, although their role, autonomy, and function differ. Norway has two main PHIs with central roles during pandemics, the Norwegian Institute of Public Health (NIPH) and the Directorate of Health (DOH). While the NIPH is responsible for tracking and reacting to outbreaks of infectious or food-borne diseases, both organizations hold a central role in the plans for pandemic response (Norwegian Department of Health, 2014). The NIPH has a stronger emphasis on research than the DOH (NIPH, 2016), whereas the latter “shall improve the health of the citizens and the community as a whole . . . by virtue of its role as an executive agency, as a regulatory authority and as an implementing authority in areas of health policy” (Norwegian Directorate of Health, 2019, Public mandate section). In combination, and collaborating closely with the Norwegian government to whom both ultimately report, the two PHIs hold the necessary expertise and authority to establish and effectuate the national pandemic response.

**Literature Review**

In discussion of crisis communication, pandemics are typical examples of crises, whereas communicating about health risks, such as potential infectious diseases, is often mentioned as a form of risk communication. In situating the COVID-19 pandemic—and, hence, our data material—it is relevant to consider the interrelations of risk and crisis. Generally, we agree with Seeger (2006) who asserts that while the two terms describe slightly different functions, they are often unified in practice. During the COVID-19 pandemic, some functions of PHI communication could best be
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described as risk communication. Simultaneously, the PHIs were clearly involved in crisis communication, attempting to manage and provide information about the ongoing crisis and potential developments while maintaining their own credibility and position as organizations. It might be possible to break down individual rhetorical acts or statements in order to define them as either crisis or risk communication, but issues of trust clearly cut across the two domains. Hence, we sidestep the question of the interrelations between risk and crisis communication during the pandemic at present and, instead, aim to identify and detail the role of ethos across the PHIs’ communication strategies.

In order to examine the role of ethos-based communication during the pandemic, we will first introduce the concept of the rhetorical situation. We argue that this contextual analytical framework is highly suitable to capture the challenges and possibilities for communication from public institutions during a pandemic.

Public Communication Work, Pandemics, and the Rhetorical Situation

The concept of the rhetorical situation was first introduced by Bitzer (1968), who considered it to consist of three elements, an exigence or pressing problem that can be influenced through communication, an audience that the rhetor aims at persuading, and constraints in the form of rhetorical, physical, or cultural conditions of possibility for achieving the desired outcome (Bitzer, 1968). Subsequently, the concept has been nuanced theoretically and adapted to current media environments, as scholars have argued that (technological) affordances and other (media) possibilities should be included in analyses of the rhetorical situation in order to avoid a deterministic understanding of rhetoric (Ihlen, 2011; Kjeldsen, 2015).

The framework of the rhetorical situation is important for our understanding of the communication of the PHIs during the pandemic. Establishing this starting point allows us to incorporate some of the contextual challenges and opportunities faced by organizations during a pandemic, as already presented in crisis and risk communication literature.
One existing study specifically examines how the Hong Kong government dealt with challenges of trust during the 2003 SARS outbreak (Lee, 2009). Here, factors that differentiate public crisis management from similar work in private companies are identified. One such challenge can arise from the complexity of public bureaucracy which might result in inconsistencies in statements made by different parts of the government. This can enhance communication and coordination problems between the government and the public and create an impression of sub-optimal crisis management that shapes present and future expectations of the government as well as the public’s willingness to adhere to advice (Lee, 2009).

Similarly, Liu and Horsley (2007) argue that public sector communication work is shaped by several environmental and contextual challenges, including the political aspects of all decisions, the specific expectation of serving the public and increased scrutiny from the media and the public. At the same time, inconsistencies and disagreements between agencies and actors can also be a result of differences in interpretations of what technical or scientific information might be appropriate to divulge to the public (Chess & Clarke, 2007).

Existing research has also pointed to contextual factors in trust between various types of organizations. While private industry received the greatest increase in trust scores through demonstrating openness, the effects on trust in government institutions was most significant when they demonstrated competency. This can be taken to indicate that organizational trust is increased by breaking stereotypes such as public institutions being impersonal or bureaucratic or private companies valuing their own profit over the public good (Peters et al., 1997).

Although these studies do not use the terminology of the rhetorical situation, they identify contextual and situated factors in what rhetorical strategies constitute a fitting response in each instance. We argue that the rhetorical situation as a theoretical lens can contribute to a better understanding of these factors. In order to add to these insights, we turn to the question of how ethos may help address the constraints of the current situation of the PHIs.
The Rhetorical Tradition—Organizational Rhetoric and Ethos

Since its inception, the aim of rhetoric has been to systematically study the various means available for persuasion through communication (Aristotle, trans. 2006, 1.2.1). While the ancient tradition had a focus on individuals as rhetors, the modern field of organizational rhetoric is dedicated to the study of communication on behalf of larger entities such as private companies and public authorities (Ihlen & Heath, 2018). This field rests on the premise that organizations must communicate as collective actors in order to achieve their goals. Hence, scholars of organizational rhetoric study how organizations go about their communicative business, drawing on a wide array of work from both classical and modern rhetoric (Ihlen & Heath, 2018).

Here, ethos, the appeal to the communicator’s trustworthiness, is a central mode of persuasion (Baumlin & Scisco, 2018), as this is particularly challenging for a collective actor who must establish itself through communication. Ethos is generally understood as consisting of three dimensions: competency, virtue, and goodwill. Speakers who demonstrate these capacities, it is implied, will be more readily believed than others (Aristotle, trans. 2006, 2.2.5).

In this article, we explore how organizations may use rhetorical appeals to ethos to influence audiences’ trust in them and their messages. For the practical analysis, we will operationalize the three core parts of ethos as outlined by Aristotle combined with modern notions of organizational ethos. In exploring the dimension of practical wisdom as this relates to the demonstration of competency, such practical wisdom can be demonstrated or strengthened through the use of formal or scientific language (Ihlen, 2009); it can also be formalized as expertise, operationalized in messages that present scientific methods or approach (Xu et al., 2020). The dimension of virtue has previously been operationalized in rhetorical theory as the use of partnerships with trustworthy organizations and endorsements (Ihlen, 2009), while persuasion theory has operationalized the related concept of honesty as being open about potential negative sides of the organization’s own position (Xu et al., 2020).
Finally, goodwill has been tied to the demonstration of understanding, empathy, and responsiveness to communication from others (McCroskey & Teven, 1999). In analyzing interview transcripts and field notes, we have treated segments that concern any of these elements as connected to the rhetorical construction of the organization’s ethos and analyzed them accordingly.

**Method**

The data material for the paper consists of (1) field notes gathered through participant observations in the communication departments of the NIPH and DOH during the Spring and Fall of 2020 (specifically, 6 days NIPH and 4 days DOH during March and April followed by 5 additional days of observation at NIPH in August); and (2) eight in-depth, qualitative semi-structured interviews, four in each organization, during the Fall of 2020.

Participant observation was chosen both as a way of capturing the complexities of organizations as communicators (Ybema et al., 2009, pp. 1–3) and as a way of ensuring a real-time perspective on how the communication work was conducted and negotiated during the height of the pandemic. As “a method for producing data about realities, a way to systematically transcribe processes as they are pursued and narrated by research subjects and observed and experienced by the researcher” (Nielsen, 2012, p. 190), participant observation can be helpful in describing complex social realities. It can be difficult to capture the uncertain and changing nature of crises and disasters in structured and systematic fieldwork (Horsley, 2012), but our study was facilitated by the fact that we had already established contact with one PHI and done extensive background research on the plans for pandemic communication prior to the start of the COVID-19 pandemic. As part of negotiating access, a confidentiality agreement concerning classified and personal information was signed. During observations, field notes were gathered by hand for each individual day, along with reflective notes about possible interpretations, challenges, concerns, and areas for further investigation.

In order to analyze and interpret the results of ethnographic studies, it is necessary to triangulate the data gathered through
observation. This was done methodologically by supplementing with qualitative interviews and through a triangulation of sites for observation with time spent at two different sites, with two different organizations at two different times (Schwartz-Shea & Yanow, 2009).

The interviews included in the study were semi-structured, lasting around one hour each. Prior to the interviews, an interview guide was created, addressing central questions concerning communication during the pandemic as well as more general strategies for crisis and risk communication in the organizations. The semi-structured approach allowed for the interviewer to adapt the questions asked, based both on replies given to previous questions and the roles and responsibilities of the individual interview subject within the communication departments. This approach to interviews was informed by Kvale and Brinkmann’s (2009) seven-step approach to qualitative interviews. In selecting interview subjects, we focused on covering different aspects of the organizations’ communication work, picking both general managers and employees working in the various internal teams responsible for press work, social media and owned media. With the exception of one online conversation, all interviews were conducted in person.

Field notes and transcripts of the interviews were analyzed in order to thematically identify segments concerning issues of trust and trustworthiness. Subsequently, selected illustrative quotes from the interviews were translated by the first author for inclusion in the paper. The final included quotes were presented to the interview subjects and approved. While we aim to provide rich descriptions and interpretations grounded in the perceived reality of employees in the chosen organizations, we do not claim generalizability from our cases to all PHIs facing a pandemic. Informed by the concept of the rhetorical situation with its emphasis on contextual affordances and hindrances to efficient rhetorical action, we argue that such generalization would, at best, be thin and, at worst, misleading. We do, however, intend for our analysis to be helpful both to academics and to practitioners, as we seek to draw lessons from what is surely not the best-case scenario but maybe one “as-good-as-it-gets” case for communicating the COVID-19 pandemic response.
Results and Discussion

The Pandemic as a Rhetorical Situation

As mentioned initially, we argue that the rhetorical situation (Bitzer, 1968) is an important theoretical lens for understanding the complexities, challenges, and affordances surrounding public sector communication work during the pandemic. In order to understand how the situation shaped the choices made by the PHIs included in the study, it is first necessary to understand what rhetorical problem they attempted to solve through their communication. The main objective is simple enough; PHIs attempted to convey scientifically sound information about the nature of the pandemic, the official state response as well as recommendations for additional actions for individuals to protect themselves and contribute to halting the spread of the pandemic. As one interview subject, H1 at the DOH described it:

The goal of our communication has been to gain adherence from the population, to have trust. We have worked along three axes: Building knowledge, achieving trust, and ensuring that people have the right behavior. That last one is hard, because it is about changing behavior. (H1, DOH, Personal communication, 10.2020)

The broadly defined exigence of the pandemic means that the rhetorical audience for organizations such as NIPH and the DOH becomes the entire population of their country, primarily the general public, as these are “the mediators of change” who can resolve the situation by acting in compliance with the PHIs’ advice. Simultaneously, the PHIs also communicate with several other target groups, such as the medical community and the government itself.

Communicating to such a wide target group can be challenging, and subgroups within the general public have been identified as particularly important, either because they are not reached by general communication through the media or because statistics and surveys have shown that they are not adhering to the guidelines as diligently as the rest of the population. The latter was, for instance, evident during observations of the production and promotion of an instruction video for the correct use of face masks.
where both the choice of actor and targeting of the video aimed at reaching people between the age of 20–30, particularly males.

In our analysis of the rhetorical situation, we must understand the contextual constraints as well as the tools and resources that are available to the PHIs to resolve the exigence. As a starting point, the Norwegian PHIs are well-known and have a certain amount of pre-built trustworthiness and recognition among the public. For instance, polling conducted prior to the pandemic showed that 60% of the population had a positive impression of the DOH (IPSOS, 2020). Further, both organizations have pre-existing plans for risk and crisis communication as well as valuable experiences from previous public health crises in the country (Brekke et al., 2017). Being official parts of the national crisis response also offers tools that are not necessarily available to communication departments in private industry or the corporate world, such as the ability of communicating directly to all cellular devices in the country, or direct lines of communication with health professionals all over the country.

Regarding the ethos of the PHIs as a situational affordance as well as a rhetorical strategy, we argue that their role and function in the overall system of health care and governance strengthens their initial credibility; they are not organizations who have to build their reputation from scratch but are already established as the scientific authority when it comes to public health. In an interview conducted prior to the outbreak of the COVID-19 pandemic, R1 at the NIPH described how establishing trust is central to communication work for the organization:

Building trust in the public is a frequent topic for us. We are aware that the population presently shows a high degree of trust in us, and we work to obtain and maintain this trust. We are especially aware that we need this trust in a crisis situation, in order for our advice to be listened to and followed. (R1, NIPH, Personal communication, 01.2020)

The pre-established trust should be seen as an important affordance that influences how the organizations handle the rhetorical problems of the pandemic.
In the following sections we will identify and discuss some of the rhetorical strategies for strengthening ethos employed by the PHIs in Norway, relating these strategies to the complexity of the rhetorical situation.

**Ethos through Competency/Practical Wisdom**

First, we consider the strategy of building ethos through the display of practical knowledge, understood as trustworthiness derived from the impression that the speaker is competent, qualified, and knows what they are talking about (Baumlin & Scisco, 2018; Ihlen, 2009). One of the challenges of risk and crisis situations in general, and pandemics in particular, is that they are characterized by uncertainty, both among the public and among the experts (Seeger & Sellnow, 2019). One interesting example is from the informant H1 at DOH who emphasized the need to increase knowledge among the population as part of the communication work during the pandemic:

We attempt to build an understanding of the situation we are all in [. . .] increasing the level of knowledge and the competency among every individual. I think that is quite central because if you know, understand and see the context, it becomes a lot easier to trust in the decisions and the general handling that is being done. So, we have spent a lot of time explaining, simplifying and so on, and it’s been quite complex because our advice has been changing quite frequently and the advice has been quite complicated through the pandemic. (H1, DOH, Personal communication, 10.2020)

Here, the organization seeks to build its own competency in and through active attempts to build the knowledge and understanding of the audience. The situation makes it necessary to take the time to repeat and explain in detail the various aspects of their decisions in order to make it possible for the audience to understand and accept the measures as necessary. Simultaneously, the organization strengthens its competency and expertise insofar as the audience deems it to be knowledgeable and adept at communicating its knowledge.

Along similar lines, several informants spoke of strategies to adapt to and improve communication through the use of feedback
from the public, particularly when the feedback indicated that the communication might be confusing or unclear. One informant, H4 at the DOH, described the feedback process as follows:

Continuous adaptation and adjustment, I think so [that it was important for their successful communication work], we call it the golden triangle in our team. We publish on [health website], people ask questions through the phone or through our chat-bot as well as feedback through [health website] and then we revise it. (H4, DOH, Personal communication, 10.2020)

While giving clear and easily understood advice might seem like an obvious tactic of risk and crisis communication, the uncertainty of the COVID-19 pandemic presents a potential challenge that our informants had to react to. Noting how the need to communicate quickly is in conflict with the desire to communicate correctly, another informant, H2 at the DOH, said:

If we had been standing there, unsure about what to say, being late with our comments or said “no, we have to get back to you on that,” “we don’t know,” or “I can’t say,” if we had chosen that way of communicating I think we would have started out with a deficit [in trust] []. And that’s why. [the assistant director of the DOH] as well as [the director of the DOH] has been very clear and very skilled at communicating through the entire period, but they have, even when we do not know, said that “I can’t say for sure, but.” So, we have taken that approach with a lot of things, and I think that has worked well. (H2, DOH, Personal communication, 10.2020)

What the informant describes here, can in many ways be seen as a balancing act between different best practice principles of crisis communication (Covello, 2010; Seeger, 2006; Seeger & Sellnow, 2019), defending the trustworthiness of the organization while simultaneously recognizing the inherent uncertainty of the situation and answering a need for information even when information is scarce or contested.

The fact that several different organizations, who did not always agree with each other, were involved in official communication about the pandemic can be seen as a characteristic of the rhetorical situation that challenges the organizations’ ability to demonstrate practical wisdom. This was not only the case in the COVID-19
pandemic, but also during the Norwegian handling of the N1H1 pandemic (Brekke et al., 2017). When two different organizations, both billed as experts responsible for devising strategy, disagree with each other, it could potentially hurt the ethos, not only of the individual organizations but of the official pandemic response as a whole. This concern seemed strong during the first round of observations at the NIPH in March, as the issue of how to handle conflicting statements between the organizations and the DOH, who at the time held separate press conferences each day, was intensely discussed at meetings and in casual encounters between the lead author and members of the communication staff. In the follow-up interviews we asked informants about these episodes of conflicting opinions and their potential effect on ethos, receiving varied answers. One informant from the DOH, for instance, emphasized that the collaboration between the PHIs had worked out well. When asked about potential negative impact on trust, the informant, H2, replied that:

> You would think so, but I do not think it has led to our position being weakened in daily communication. Maybe it could have been in certain periods [of the pandemic] if there had been a lot of cases centered around [NIPH] saying this thing and [DOH] saying that thing. There have been some cases like that, where it has been a bit contested, but I don’t think there have been too many. There haven’t been that many big media cases about conflict. (H2, DOH Personal communication, 10.2020)

Most respondents seem to agree that conflicting advice between the different institutions has not been that big of a problem for trustworthiness in communication about the pandemic, at least not in its early stages. In fact, several informants highlighted that communication and collaboration between the different organizations seemed to have worked well throughout the crisis, with daily meetings and coordination efforts.

That is not to say that the number of organizations involved did not lead to challenges in the rhetorical work during the pandemic. During observation at the two PHIs, it was repeatedly clear that an important constraint was the fact that neither organization was the ultimate authority regarding what advice would eventually
be given and what regulations would be introduced. Instead, this was the prerogative of the government/the minister of health. This was especially evident during the period of observations at the DOH in April 2020. The lead author followed the communication department in the days prior to an important press conference, which was to announce the first instances of easing of regulations, including the opening of kindergartens and the lifting of a controversial ban on visits to secondary property such as cabins. The week before this press conference, recommendations had been given by the DOH and the NIPH in a report. However, early feedback indicated that recommendations in this report were likely to be overruled by the government. This led the PHIs to spend significant time and energy strategizing and preparing for a rhetorical challenge where their expert opinion was likely to be overruled. This all changed a few hours before the press conference when the PHIs were notified through email that the final decision would end up being largely in line with the recommendations from the DOH, with the exceptions of a few dates being pushed back.

Bringing this back to our theoretical framework, we would argue that we can see clear examples of the rhetorical situation challenging the use of ethos strategies tied to practical knowledge. However, as the next section will show, the organizations were able to draw on other dimensions of ethos in ways that mollified the negative consequences of challenges to the dimension of practical knowledge.

**Ethos through Demonstrations of Virtue**

Ethos through the demonstration of virtue was visible in the answers from several of our informants in various ways, particularly through the perceived independence of the NIPH. One example highlights how disagreement between authorities, which might challenge ethos through competency (Baumlin & Scisco, 2018), can actually strengthen the overall trustworthiness, as it displays openness and honesty:

> One of the things that has contributed to people trusting us has been that we have been open about what we recommend, even when the government has decided on something else. [ . . . ] At least that is
something I believe should strengthen the trust in the recommendations. (R2, NIPH, Personal communication, 10.2020)

Other informants similarly pointed to the importance of professional honesty to establish trustworthiness:

Being open, to be transparent so that it does not seem like you are holding anything back in your professional assessment. Show that we are not gagged, we are definitely part of the team, but we make our own decisions and are free to express them. I think that gives credibility. (R7, NIPH, Personal communication, 10.2020)

Through a rhetorical lens, we can understand what is described here as a fitting response to a rhetorical situation where the presence of several organizations might challenge the ability to build trust through the demonstration of practical wisdom. Instead of being weakened by the presence of conflicting opinions, the organizations are able to present their willingness to stand by their opinions, even if they are challenged or ignored by other experts, as a demonstration of virtue, in this case professional integrity, honesty, and the courage of conviction.

During observations at the NIPH in the Fall of 2020, it was also possible to observe the active preservation of virtue in the form of guarding the perceived independence of the organization from the political leadership of the Ministry of Health and Care Services (MOH). When the governing party and the opposition were having a public dispute concerning the recommendation to restrict the operation of bars and nightclubs, the MOH inquired if the NIPH would be able to provide scientific backing for the policy. The NIPH feared that this could be seen as them being a party in a political disagreement and decided it would not provide such backing. In the end, the MOH used numbers provided by the NIPH as part of their weekly reports about sites and locations for transmission of the virus, but without the NIPH being perceived as an active part responding to the desires of the government.

**Ethos through Goodwill**

One central constraint in the rhetorical situation faced by the organizations in this study is that they are public and partially
bureaucratic organizations. Expectations tied to such organizations’ language, tone, and emotional distance could be seen as barriers to their demonstration of goodwill (Liu & Horsley, 2007; McCroskey & Teven, 1999). Personal, emotional, and informal communication, classical strategies for emphasizing goodwill, are not traits traditionally associated with public sector organizations—and while demonstrating such traits might strengthen the display of goodwill, it could lower trustworthiness in other respects.

In this light, it is interesting that both organizations showed signs of active use of rhetorical strategies that display empathy and even identification with the audience, and several respondents mentioned that they believed these strategies had helped them in securing their audiences’ trust. For instance, R3 at the NIPH provided the following evaluation of the active use of social media:

And we got feedback last week where it was clear throughout that they had trust in us, but also our way of speaking to them [the audience], the ones commenting appeared to enjoy the way we talked to them. That it is not the typical government or public service way of speaking. Many would think that formality would increase trust, but I think you benefit from having a more personal tone. (R3, NIPH, Personal communication, 09.2020)

Understood as a rhetorical strategy for strengthening ethos, the use of personal, informal language as well as engaging in dialogue through social media demonstrates to the audience that the speaker, in this case the NIPH, considers audience members as individuals and cares enough about them to address them individually (McCroskey & Teven, 1999).

Interestingly, this approach to dialogue through social media does not seem to have been prioritized at the DOH where the communication department made an early decision to emphasize what they described as “one-to-many” communication. However, some strategies for demonstrating goodwill were visible in how this “one-to-many” communication was designed. One informant, for instance, mentioned how they took care in ensuring a sense of safety in the reader and taking steps to include more personal language such as the use of “you” and “those close to you” in their
messages. This description, of something as simple as the use of the word “you” being effective in building trustworthiness for the organization, could be related to the idea of breaking with the stereotype of the cold and impersonal public organization (Peters et al., 1997). At the same time, this informant emphasizes the more general point that receiving the information needed to feel safe can strengthen the impression that the organization has the citizens’ best interests in mind.

While the PHIs were willing to actively build goodwill aspects of ethos in their communication, they were also aware of the expectations placed on their communication as public institutions. This was, perhaps, best exemplified in observations at the DOH during a meeting discussing a concrete campaign for a contact-tracing app. During the meeting, participants discussed a planned promotional video using well-known comedians and humor to promote the message that if enough people used the app it would be easier to reopen society. It became clear from the discussion that the general tone and humor seemed to break with the participants’ idea of tone and content from the organizations, and the campaign, ultimately, did not make it past the planning stage. This observation, then, points to the issue of balancing the various appeals to ethos and not prioritizing one aspect at the expense of others.

**Conclusion**

Returning to our initial research questions, we can conclude that rhetorical strategies relying on the demonstration of ethos (Aristotle, trans. 2006; Baumlin & Scisco, 2018) were clearly visible in the communication strategy of the Norwegian PHIs included in the study. Various aspects of demonstrating practical knowledge, virtue, and goodwill (Baumlin & Scisco, 2018; McCroskey & Teven, 1999) were brought up by informants and appeared as central concerns during participant observation. However, the demonstration of ethos dimensions did not take the form of simply checking boxes or following existing principles, but had to be adapted and changed according to a changing and challenging rhetorical situation (Bitzer, 1968).
Relying on our qualitative approach, particularly participant observations, allowed us to capture how this rhetorical situation was shaped by aspects pertaining to the character of the pandemic as well as by conditions related to the PHIs’ position within the Norwegian system of pandemic response as public institutions (Peters et al., 1997). Simultaneously, the affordance of preexisting public trust in Norwegian institutions meant that the organizations’ main task was to maintain their trustworthiness, rather than having to build it from scratch. In practice, this might have influenced how the PHIs were able to pivot away from dimensions of trust that were challenged by the rhetorical situation by, for instance, relying on virtue dimensions when practical knowledge was rendered unavailable. Honesty and the courage to stick by your views in the face of disagreement was highlighted by informants as strengthening their ethos.

At the same time, there are important limitations to our study. First, contextualization is an inherent condition of our approach. While we can describe the pandemic response of the Norwegian PHIs as fitting to their specific situation, using the same strategies in another context might have led to a different result. In a country such as Sweden, where PHIs have more authority and autonomy in designing and executing the pandemic response (Jakobsen, 2020), navigation of the inherent uncertainty of a global pandemic has taken a different form. Further, even within the same country, we would probably have reached different conclusions had this study been focused on government communication work, originating from the MOH or from the office of the prime minister. Finally, there is reason to believe that results would have been different in studies conducted in countries with lower levels of pre-existing societal trust.

These limitations point to the importance of a situated, rhetorically grounded approach to further research on risk and crisis communication, one that incorporates an understanding of the rhetorical situation. Further research that details the rhetorical situations of responding to the COVID-19 pandemic in various contexts can contribute to the field of risk and crisis communication by charting some of the more common challenges to building trust.
in crisis situations and, possibly, point to general ways of overcoming them.

Such further research would contribute to expanding existing best-practice advice (Seeger, 2006; Seeger & Sellnow, 2019), which in its current form mainly relies on meta-examination of crises, toward practical advice based on a deeper understanding of the uniqueness of both specific risks and crises and of the organizations involved in responding to them. For the PHIs in our study, this could mean incorporating and emphasizing independence as a central virtue in their communication work prior to the next pandemic outbreak. Further, a general effort by PHIs, the ministry, and the government in constructing a joint ethos of the overarching health management field might be considered. Strengthening the public’s understanding of the process of deciding on a response, including how scientific knowledge relies on hypotheses, attempts at falsification and scientific advancement, could serve as an inoculation against potential negative effects of disagreement between scientific authorities, while simultaneously strengthening the potential of virtue-based ethos strategies.

ORCID

Truls Strand Offerdal  https://orcid.org/0000-0001-6631-1918
Sine Nørholm Just  https://orcid.org/0000-0002-4179-2708
Øyvind Ihlen  https://orcid.org/0000-0002-5001-3796

References


Examining the Role of Transparent Organizational Communication for Employees’ Job Engagement and Disengagement during the COVID-19 Pandemic in Austria

Julia Stranzl1 ©, Christopher Ruppel1 ©, and Sabine Einwiller1 ©

1. Corporate Communication Research Group, University of Vienna, Vienna, Austria

ABSTRACT
This study provides an understanding of how employees’ perception of organizational transparency during the long-lasting situation of the COVID-19 pandemic engendered their job engagement as well as job disengagement. Data were collected by means of an online survey among 410 employees in Austria during March 2021. Results show that employees’ perception of their organization’s approach to transparency directly influenced their job engagement and disengagement. Importantly, the relationship between transparency and job engagement was also mediated through organizational trust, and job-specific state anxiety mediated the relationship between transparency and job disengagement. The results imply the importance of transparency during times of great uncertainty and emphasize the necessity to closely consider employees’ emotional states and worries during a crisis.

KEYWORDS: transparent organizational communication, COVID-19, organizational trust, job-specific state anxiety, job (dis)engagement

At the beginning of 2020, the COVID-19 virus started to spread suddenly and uncontrollably all over the world, resulting in a pandemic and a major social and economic global disaster with widespread implications for the public and private sectors alike. In many organizations, the COVID-19 pandemic spawned a
crisis, as it was an unexpected event with high uncertainty and ambiguity (Coombs, 2015) where control within the organization was not constantly maintained. In such a situation, organizations have to inform their employees about crisis-related changes, meet their needs to reduce job-specific anxiety (Spielberger et al., 1983), and maintain trust in management (Hon & Grunig, 1999).

To contain the spread of the virus, the Austrian government—like many other governments in Europe and all over the world—has ordered several shutdowns since March 2020, which led to radical changes regarding organizations’ freedom to operate. The long-lasting crisis situation has involved many restrictions that caused hardship and uncertainty for organizations and their employees. Thus, a major organizational concern and an economic necessity are to ensure employees’ continued job engagement (Chanana & Sangeeta, 2020; Mani & Mishra, 2020), which is defined as the degree to which individuals stay attentive and absorbed in the performance of their jobs (Saks, 2006). If employees disengage with their jobs, an organization’s performance can suffer severely (Wollard, 2011). To achieve job engagement and minimize the risk of job disengagement, effective internal crisis communication is vital (Strandberg & Vigsø, 2016), which is defined as “the communicative interaction among managers and employees, in a private or public organization, before, during and after an organizational or societal crisis” (Johansen et al., 2012, p. 271). During the COVID-19 pandemic, practitioners and employees alike have called for a transparent, helpful, and bidirectional organizational communication approach (Argenti, 2020; Orangefiery, 2020).

Extant research has not only highlighted the role of governmental transparency during the COVID-19 (Moon, 2020) and SARS pandemics (Menon & Goh, 2005) but also demonstrated the importance of organizational transparency to build trust and alleviate stress (Spalluto et al., 2020). Under normal conditions, employee communication benefits from a transparent approach in which managers communicate substantial information, give options for participation, and hold themselves accountable (Rawlins, 2009). Transparency is considered a key element in strategic communication (Albu & Wehmeier, 2014), and research has shown positive effects of transparency perceptions on organizational
identification (Men et al., 2020), employee engagement (Jiang & Men, 2017; Men & Hung-Baesecke, 2015), trust (Rawlins, 2009; Yue et al., 2019), internal reputation and improvement of the quality of employee-organization relationships (Men, 2014; Men & Stacks, 2014), positive communication behavior (Kim, 2018), as well as health information disclosure intentions (Lee & Li, 2020).

The role of transparent communication in organizational crises can be explained by drawing on the social exchange theory (Blau, 1964), which describes how the deployment of organizational resources results in employees’ reciprocation in terms of pro-social attitudes and behavior. Transparent organizational communication can be seen as a socioemotional resource (Foa & Foa, 1980) that employees may repay with trust in their management and job engagement (Saks, 2006). However, if employees do not experience transparency from their organization, they may feel discouraged to return any resources. Even worse, a lack of transparency may enhance employees’ uncertainty and anxiety experienced during times of crisis and cause them to disengage from their job by disconnecting from their work roles (Kahn, 1990). Currently, not much is known about the actual value of transparency perceptions in warding off negative reactions and strengthening positive ones during organizational crisis situations like those caused by the COVID-19 pandemic. Therefore, the aim of this study is to examine the role of transparency perceptions in strengthening job engagement and buffering job disengagement during a time where high uncertainty is expressed and employees depend on support not just from the government but also from their employers. This research aims to reveal the influence of employees’ perceptions of transparent internal crisis communication during the COVID-19 pandemic on their job engagement and disengagement and unveil factors that mediate this relationship.

The present study strengthens our understanding of crisis communication during a major pandemic in several ways. First, we provide empirical evidence for the value of a specific crisis communication approach that has been considered a problem-solving mechanism for different societal challenges (Ringel, 2017). Second, the study contributes to crisis communication literature (e.g., Frandsen & Johansen, 2011; Heide & Simonsson, 2020) by...
integrating the social exchange theory (Blau, 1964) to explain the potential of transparent communication during a crisis to stimulate the reciprocation of job engagement and prevent job disengagement. Third, the study sheds light on the effects of crisis communication on an under-researched, yet success-critical construct: job disengagement. It further reveals the role of job-specific anxiety, which is an emotional response in times of health uncertainty (J. Hu et al., 2020) for job disengagement. The study aims to stimulate the debate on the value of a transparent approach in crisis communication to protect organizations from negative outcomes. Finally, its results will encourage communication scholars to rethink the conceptualization of transparent communication.

After outlining the main constructs, theory, and deriving hypotheses, we will present the results of a survey conducted during the COVID-19 pandemic among 410 people employed in organizations in Austria. The paper concludes with a discussion, theoretical and practical implications, limitations, and ideas for further research.

Literature Review

Transparent Organizational Communication during Crises

The public attribution of transparency is considered to be a celebrated, respected ideal and aspiration of modern society (e.g., Christensen & Cheney, 2015). During the COVID-19 pandemic, practitioners have stressed the importance of a transparent communication approach. Argenti (2020), for example, advises those responsible for corporate communication to transparently explain what they know about the crisis, from where they obtain knowledge about the events surrounding the crisis, and what they do not know. A survey among adults employed in the U.S. supports this claim by emphasizing the demands for a transparent organizational communication approach from employees (Orangefiery, 2020).

From a conceptual point of view, organizational transparency is inspired by considerations from management and strategic communication research (Men & Stacks, 2014; Rawlins, 2009). According to Schnackenberg and Tomlinson (2016), transparency
perceptions are the degree of perceived information disclosure, clarity, and accuracy. Therefore, researchers have defined transparency as “the perceived quality of intentionally shared information from a sender” (p. 1788). In communications, the multidimensional conceptualization by Rawlins (2009) is frequently used, based on which Men and Stacks (2014) defined internal transparent communication as “an organization’s communication to make available all legally releasable information to employees whether positive or negative in nature—in a manner that is accurate, timely, balanced, and unequivocal, for the purpose of enhancing the reasoning ability of employees, and holding organizations accountable for their actions, policies, and practices” (p. 306). Specifically, Rawlins (2009) found empirical support for the combination of three dimensions, or organizational efforts, to create perceptions of transparency (Balkin, 1999): (1) the distribution of substantial information; (2) the provision of possibilities for participation to identify stakeholders’ needs; and (3) objective reporting about organizational activities and actions to hold the organization accountable (Rawlins, 2009).

The first dimension, substantial information, comes close to the understanding of the transparency concept as defined by Schnackenberg und Tomlinson (2016). Rawlins referred to this as the sharing of information that is relevant, clear, complete, accurate, reliable, and verifiable in a timely manner. During the COVID-19 pandemic, in particular, sharing general crisis-related information about the virus and respective regulations in addition to providing employee-oriented instructions on what to do and not do have been considered core elements of crisis communication (Heide & Simonsson, 2020). Rawlins’s second dimension, participation, is considered essential to find out stakeholders’ needs and wants. The importance of providing platforms for discussion has also been emphasized in the crisis communication literature (Heide & Simonsson, 2020). The third dimension, accountability, means to focus on areas that require improvement and to expose

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1. Rawlins proposed a fourth dimension of transparency, which he termed secrecy. A closer look at this dimension reveals that it means the opposite of dissemination of substantial information; therefore, it is not separately integrated in the model.
the organization’s weaknesses (Rawlins, 2009). This demonstrates responsibility and the ability to take criticism, thereby enhancing the organization’s ethical nature (Men & Stacks, 2014). Rawlins (2009) concluded that striving for transparency entails integrity, respect, and openness, which also engenders stakeholder trust (Balkin, 1999).

Empirical research on the value and effects of a transparent approach during a crisis situation on employees has become more prevalent in recent years. It has been shown that transparent communication stimulates employees’ sensemaking and sensegiving processes during a crisis, which highlights the importance of ensuring participation, evaluating strategic communication behavior, and developing further communication strategies (Kim, 2018). For the external organization context, the relationship between transparency and trust was experimentally investigated by Auger (2014), who confirmed the positive effect of transparency on the public’s trust and support. In the context of the COVID-19 pandemic, Lee and Li (2021) showed that transparent information is relevant to increasing public trust. As employees are important receivers of crisis information (Strandberg & Vigsø, 2016), more research about the effects of internal transparent communication is needed.

**Job Engagement and Job Disengagement**

Job engagement matters, especially during a worldwide pandemic with massive effects on the economy and organizations (Chanana & Sangeeta, 2020; Mani & Mishra, 2020). There are various conceptualizations and research streams on the antecedents and effects of engagement in the working context (Shen & Jiang, 2019). Drawing on Kahn (1990), Saks proposed a concept differentiating between job engagement and organizational engagement. In this study, we focus on job engagement, which Saks (2006) defined as “cognitive, emotional, and behavioral components that are associated with individual role performance” (p. 602). It is rather “the degree to which an individual is attentive and absorbed in the performance of their roles” (Saks, 2006, p. 602) than a mere attitude held by an employee. We prefer this comprehensive understanding over more
narrow views that perceive engagement solely as an affective state (e.g., Men, 2015) or a psychological state (e.g., Schaufeli, 2013), as it is more closely related to employees’ actual behavioral support for their employer. According to Kahn (1990), three psychological conditions exhibit a relevant impact on job engagement and, correspondingly, job disengagement: meaningfulness, safety, and availability.

Previous research has shown the positive effects of employee engagement, like a higher rate of job satisfaction (Biswas & Bhatnagar, 2013; Saks, 2006), commitment to the organization (Saks, 2006), reduced turnover intentions, and an increased willingness to support the employer through positive communication behavior (Kang & Sung, 2017; Shen & Jiang, 2019). Yin (2018) underlined the positive influence of engagement on citizenship behavior (see also Saks, 2006), task performance, and the negative relationship between counterproductive work and engagement. Additionally, engagement matters for organizational success (Saks & Gruman, 2014; Wollard, 2011) and competitiveness (Men & Bowen, 2017; Saks & Gruman, 2014), as well as employee well-being (Men & Bowen, 2017; Wollard, 2011) and employee satisfaction (Men & Bowen, 2017).

On the contrary, job disengagement, which is much less discussed in the academic literature (Rastogi et al., 2018), can be understood as a state where employees cognitively, physically, and emotionally uncouple themselves from their normal work role as a way of self-protection (Kahn, 1990). According to Kahn, the absence of the three psychological conditions—meaningfulness, safety, and availability—trigger the decision to actively disengage. Disengagement is, therefore, an internal process, a form of disconnection from the job where individuals protect themselves from perceived threats (Kahn, 1990; Wollard, 2011). It is not a permanent state but rather a condition that depends on the work environment and “manifests in behaviors that put physical, mental, and emotional distance between the worker and their work, their peers, and their organization” (Wollard, 2011, p. 529). Others perceive disengagement as a component of burnout (Rastogi et al., 2018). Importantly, job disengagement is more than the absence of
job engagement, as different cognitive, emotional, and behavioral outcomes are expected to further influence employees’ personal and professional lives (see Wang et al., 2019, for the school context). Employees who are disengaged in their jobs do not merely lack energized involvement in their work role. They also engage in maladaptive processes where they emotionally, mentally, and physically withdraw from their required responsibilities.

Importantly, job disengagement is assumed to be a huge problem for organizations (Chanana & Sangeeta, 2020) and employees (Wollard, 2011), as demonstrated by a systematic literature analysis on the effects of job disengagement. It is presumed to include low energy, low social behavior, disinterestedness, dissatisfaction, poor work performance, counterproductive work behavior, uncertainty, and turnover intentions (Rastogi et al., 2018). Empirically, it has been shown that job disengagement (Kahn, 1990) mediates the relationship between psychological contract violation and turnover intentions (Azeem et al., 2020). For the public sector, Aslam et al. (2018) found that organizational injustice, negative political influence, and work overload lead to disengagement.

**Development of Hypotheses**

**The Influence of Transparency on Job Engagement and Disengagement**

The social exchange theory provides a valuable theoretical rationale to explain workplace behavior (Croppanzano & Mitchell, 2005) and is, therefore, suitable to analyze the role of transparent crisis communication and job (dis)engagement. One of the key assumptions is that relationships in the working context are based on reciprocity (Croppanzano & Mitchell, 2005), where “something has to be given and something returned” (Blau, 1964, p. 876). This reciprocal exchange is particularly crucial in times of crisis when organizations and employees depend on one another even more than in normal times. During the COVID-19 pandemic, organizations have demanded a lot from their employees. Most employees had to adapt to changed working conditions either at their workplace or when working from home. In sectors with slumps in orders, employees often had to accept pay cuts, while those in system-
relevant sectors had to work even harder. This meant that organizations needed to provide adequate resources in return for their employees’ resources in the form of job engagement. As argued in the social exchange theory, organizations can provide economic (money, goods and services) and socioemotional (information, love, status) resources in exchange for employees’ supportive emotions, cognitions, and behavior (Blau, 1964; Foa & Foa, 1980). As economic resources were scarce during the pandemic, the need to provide socioemotional resources, especially information, became even greater. Transparent communication can serve as a socioemotional resource by providing relevant, timely, and accurate information to employees. The role of communication to engage employees has already been recognized in the academic discourse (e.g., Rich et al., 2010), and previous research provides empirical support for the positive relationship between organizational transparency and job engagement.

Interviews with public relations practitioners suggest that internal communication is vital to build a culture of transparency, which helps to engage employees at work (Mishra et al., 2014). Jiang and Men (2017) as well as Jiang and Shen (2020) confirmed the direct relationship between a good organization–employee relationship and engagement. Additionally, both studies showed that authentic leadership mediated by transparent organizational communication fosters engagement. Employees are also more likely to identify with their organization when they perceive the dimensions of transparency (Men et al., 2020; Men & Hung-Baesecke, 2015). Lemon (2019) complemented prior discussions by stressing the role of active listening by management to engage employees. Insights into the influence of transparency on job engagement have been gained in the context of stable political, economic, and social contexts but not in times of crises that are marked by uncertainty and perceived threats to high priority goals (Seeger et al., 2003). A lack of resources from the organization should undermine perceived meaningfulness, safety, and availability and, thereby, stimulate job disengagement. Drawing on the social exchange theory and the findings from “stable economic times,” we hypothesize for times of crisis:
**H1:** The higher the employees’ perceived transparency of organizational communication, the higher their job engagement during the COVID-19 pandemic.

**H2:** The lower the employees’ perceived transparency of organizational communication, the higher their job disengagement during the COVID-19 pandemic.

### The Influence of Job-Specific State Anxiety on Job Disengagement

As a result of the strict regulations enforced by the Austrian government during the pandemic, many employees had to adapt to working from home, whereas others working in system-relevant professions had to remain “on the front line” under aggravated conditions. Whether at home or “on the front line,” many were affected by the effects of reduced working hours, resulting in reduced wages or even potential job loss. In addition to these work-related stressors, the media fueled anxiety in people by permanently reiterating the negative and possibly deadly effects of a COVID-19 infection and the detrimental effects of the pandemic on the national and world economy. This is likely to lead to job-specific state anxiety in employees (Spielberger et al., 1983).

Spielberger et al. (1983) defined anxiety as an emotional state characterized by feelings of apprehension, worry and tension, rising blood pressure, and anticipation of future threats or dangers. According to Brooks and Schweizer (2011), state anxiety occurs “in reaction to stimuli, including novel situations and the potential for undesirable outcomes” (p. 44). Furthermore, research on terrorism management suggests that experiences of mortality cause feelings of anxiety and, as a consequence, damage individuals’ well-being (Burke et al., 2010). There is a link between exposure to death and the triggering of anxiety, which consequently initiates self-protection and withdrawal behavior and, in an organizational context, reduces job engagement (Grant & Wade-Benzoni, 2009; Sliter et al., 2014). Recent research in the context of the COVID-19 pandemic in China and the U.S. has confirmed the negative influence of state anxiety on job engagement (J. Hu et al., 2020),
showing that the mortality salience triggered by the pandemic enhanced state anxiety, and servant leaders helped anxious people to stay engaged in their jobs. Hence, we hypothesize:

**H3**: The stronger the employees’ job-specific state anxiety during the COVID-19 pandemic, the stronger their disengagement with their job.

**The Influence of Employees’ Organizational Trust on Job Engagement**

During a crisis, employees’ welfare depends on the decisions made by their corporate management who have to quickly introduce measures under high levels of uncertainty. In a victim crisis elicited by a health disaster, organizations suffer through no fault of their own (Coombs, 2007). Nevertheless, they bear the responsibility to manage the uncertain situation, which includes providing trustworthy information. As Veil et al. (2011, p. 111) noted: “Once an organization is no longer considered a source of trustworthy information, management of the crisis is lost.” Based on Hon and Grunig (1999), Rawlins (2008) defined organizational trust as “one party’s willingness to be vulnerable to another party based on the confidence that the latter party is competent and dependable, has integrity, and acts with goodwill” (p. 5). Integrity is the belief that an organization acts fairly and justly; dependability refers to the belief that an organization does what it says it will do; and competence is the belief that the organization is able to do what it says it will do (Hon & Grunig, 1999). All three dimensions are considered important in a crisis context where individuals lack the knowledge to make their own decisions (Gillespie et al., 2020) and depend on the provision of relevant resources from their organization (Blau, 1964). In the internal organizational context, trust has been shown to foster openness to change (Yue et al., 2019) and organizational affective commitment (Xiong et al., 2016). Moreover, good employee–organization relationships during a crisis have a positive effect on internal reputation and employees’ behavioral intentions—favoring new tasks with extra responsibility and even the sacrifice of privileges, risks, or discomfort (Kim et al., 2019; Mazzei et al., 2019). Several studies have investigated
trust in various contexts as a key antecedent of employees’ engagement (e.g., Ugwu et al., 2014). With regard to a pandemic, Siegrist and Zingg (2014) highlighted the importance of trust in different institutions, organizations, or actors. They concluded that trust can positively influence people's acceptance of the rules and their adoption of recommended behaviors, like the willingness to vaccinate. For the COVID-19 context, Lee and Li (2021) showed the importance of organizational trust in order to create risk awareness and influence social distancing behavior in the general public.

In view of these arguments and previous findings, we conclude that employees’ trust in their organization fosters job engagement because they feel confident that their organization has the competence and the integrity to find good and fair solutions, thus allowing the employees to attend to and absorb their role. Hence:

H4: The stronger the employees’ trust in the organization during the COVID-19 pandemic, the stronger their job engagement.

The Influence of Transparency on Organizational Trust and Job-Specific State Anxiety

During a crisis, employees have considerable needs for information and high expectations for adequate and timely information from management (Heide & Simonsson, 2014; Johansen et al., 2012). Effective internal crisis communication is vital for safeguarding trust in the relationship between an organization and its employees (Mazzei & Ravazzani, 2015; Ulmer et al., 2017), as it can signal competence and integrity; this, in turn, elicits a sense of safety in employees, which is an important condition for engagement (Kahn, 1990). Siegrist and Zingg (2014) recommended a transparent crisis communication approach during a pandemic, which includes informing individuals about what is known and unknown about the pandemic “without triggering unnecessary fears and anxiety” (p. 20) by discussing uncertainties. They argued that failure to inform about the pandemic transparently can abruptly undermine trust toward the responsible institutions or organizations. Additionally, management research has indicated that a lack of information during a crisis
can generate negative outcomes, such as a loss of trust in management (DiFonzo & Bordia, 2000). According to Jahansoozi (2006), transparency during crises functions as “a relational condition or variable that promotes accountability, collaboration, cooperation and commitment” (p. 943) and “a critical condition for rebuilding trust” (p. 954). Research has already confirmed this relationship (Rawlins, 2008; Yue et al., 2019), highlighting the expanded role of transparent communication as a key driver for a good, sustainable organizational climate (Men, 2014; Men & Stacks, 2014), which is essential also after a crisis. Furthermore, research on the COVID-19 pandemic has indicated the need to increase transparency efforts toward employees to increase trust (Spalluto et al., 2020). This assumption is confirmed by Lee and Li (2021) for the external institutional context by showing that transparent information during the COVID-19 pandemic increases public trust in health institutions. Therefore, we hypothesize:

**H5**: The higher the employees’ perceived transparency of organizational communication during the COVID-19 pandemic, the stronger their trust in the organization.

**H6**: Organizational trust mediates the positive effect of transparent communication on job engagement.

Effective crisis communication is crucial to improve employees’ perceptions about uncertainties (Mazzei & Ravazzani, 2011), and effective crisis communication is essential to reduce anxiety and uncertainty (Bordia et al., 2014). As Kim et al. (2019) showed, a good organizational-employee relationship can reduce anxiety during a crisis. Moreover, ambiguous messages from management and/or confusing information from external media can negatively affect employees’ organizational trust. A transparent approach can help reduce anxiety, as it includes two-way symmetrical communication where management is willing to listen and respond to concerns (Men & Stacks, 2014). According to the uncertainty reduction theory, in an unknown situation, individuals actively collect information to reduce their uncertainty and alleviate their concerns (Hogg & Belavadi, 2017). Thus, a communication style that contains substantial information allows participation and
holds organizations accountable, thus reducing feelings of anxiety triggered by the pandemic. On the other hand, if transparency is lacking in communication, anxiety persists. Thus, we hypothesize:

H7: The lower the employees’ perceived transparency of organizational communication during the COVID-19 pandemic, the higher their job-specific state anxiety.

H8: Job-specific anxiety mediates the negative effect of transparent communication on job disengagement.

Method

Procedure
To test the hypotheses, an online survey among people employed in organizations in Austria was conducted between March 8 and 12 of 2021, almost 1 year to the date after the Austrian government mandated the first shutdown due to the COVID-19 pandemic. Participants were recruited with the assistance of the market research service provider Dynata. Invited panelists were employed for more than 1 year in an organization with 250 or more employees, so that respondents’ evaluations of internal crisis communication were based on a comparable timespan. In total, 436 people fulfilled these criteria and completed the questionnaire. Of those, 26 were excluded from the final sample because they were categorized as “speeders” (i.e., they spent less than 50% of the median response time (= 512 sec) on the questionnaire). The survey was structured as follows: After an introduction, which broadly introduced the COVID-19 pandemic and its impacts on organizations and employees as the topic of the survey, respondents were asked for their informed consent. Next, some general questions about current employment (e.g., tenure, share of remote working during the pandemic) were presented to focus the respondents’ minds on their work situation during the COVID-19 pandemic. Participants were then asked to think about the past year and evaluate their organizations’ internal communications (transparency) during this time span. The following section was introduced by a clear instruction indicating that the subsequent questions would
address how respondents feel and think at the moment. In this section, the respondents’ perception of job-specific state anxiety, organizational trust, and job engagement/disengagement were measured. The questionnaire closed with sociodemographic questions.

**Sample**

The final sample comprises 410 respondents, of whom 51% identified as female and 49% as male. The average age was 43.7 (SD = 10.8). Asked for their highest educational qualification, 29.5% stated to have a high school diploma, 29.2% held a university degree, 25.9% had completed an apprenticeship, 12.8% had an intermediate educational qualification, and 2.5% stated they had compulsory schooling. The respondents were employed across a variety of industries and sectors (public administration/service: 16.8%, healthcare and social assistance: 15.9%, manufacturing: 15.4%, retail/trade: 8.8%, transportation and logistics: 7.8%, media, information and communication: 6.1%, educational services: 5.9%, finance and insurance: 5.1%, science and research: 2.7%, construction: 2.4%; accommodation and food services: 2.2%, utilities: 2.0%, and other sectors: 8.9%). The majority (71%) worked in an organization with more than 1,000 employees. Organizational tenure was distributed as follows: 15.6% had been employed with the organization for up to 3 years, 14.6% for 3–5 years, 18.1% for 5–10 years, and 51.5% for more than 10 years. A position with managerial responsibility was held by 31% of the employees in the sample. More than half (57.3%) of the respondents stated that they had worked at least partially from home during the past year due to the pandemic.

**Measurements**

If available, measures to gauge the variables were taken or adapted from established scales. All items were rated on 7-point rating scales.

Perceived transparency of organizational communication during the crisis was measured in accordance with previous studies (e.g., Jiang & Luo, 2018; Men & Stacks, 2014; Yue et al., 2019)
that had operationalized transparent communication as a second-order construct comprising the three dimensions of substantiality, participation, and accountability (Rawlins, 2008). However, our data revealed violations of discriminant validity between transparent communication and organizational trust. Such violations need to be addressed, because “a lack of discriminant validity calls into question whether statistically significant parameters are really supported by the data or are simply an artifact of modeling the same constructs twice in one model” (Voorhees et al., 2016, p. 120). Possible remedies for the issue are revisiting data collection or dropping redundant constructs from the model, if conceptually appropriate (Voorhees et al., 2016). The study presented here is already the result of revisiting data collection after the issue of a lack of discriminant validity between transparency and trust had come up in data collected earlier during the pandemic (in April 2020). As documented in the Appendix (see Appendices A1 and A2), attempts to refine the measurements (particularly by supplementing the trust measurement with the three items to gauge employees’ overall willingness to trust their organization and by more precisely defining a different time reference for the two measurements) did not fix the problem. As a remedy, we finally excluded the accountability and participation dimensions from the measurement of transparency, focusing on substantiality only. This solution ensured discriminant validity between employees’ perception of transparency of organizational communication and their trust in the organization. From a theoretical perspective, this narrower operationalization is appropriate, as, for example, Schnackenberg and Tomlinson (2016) limited their conceptualization of organizational transparency to perceived information

2. Rawlins proposed a fourth dimension of transparency, which he termed secrecy. A closer look at this dimension reveals that it means the opposite of dissemination of substantial information; therefore, it is not separately integrated in the model.

3. Beside the lack of discriminant validity between transparency and trust, results from an exploratory factor analysis did not support the three-dimensional structure of transparency, because accountability and participation are loaded on one common factor. This is reflected in a lack of discriminant validity between these two dimensions (see Appendices A1 and A2).
disclosure, clarity, and accuracy, aspects that are all reflected in the measurement of substantiality.

For the measurement of employees’ trust in their organization, we adapted items from the scale by Rawlins (2008) that captures employees’ overall willingness to trust the organization and perceived trustworthiness (i.e., the perceived goodwill, integrity, and competence of the organization). Job-specific state anxiety was measured with items from the short form of the Spielberger state-trait anxiety inventory (Marteau & Bekker, 1992). Four items from the scale by Saks (2006) were used to measure job engagement in our study context. Job disengagement was measured by three negatively valenced items: one taken from Saks and two developed by the authors in order to gauge respondents’ deficient job role performance.

Detailed information on the wording of questions, scale endpoints, and items can be found in Table 1.

**TABLE 1  Measurement Model**

<table>
<thead>
<tr>
<th>Construct/Items</th>
<th>SL</th>
<th>α</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transparent Organizational Communication</strong></td>
<td>0.96</td>
<td>0.96</td>
<td>0.77</td>
<td></td>
</tr>
<tr>
<td>Please indicate how strongly you agree or disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with the following statements about the internal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>communication of your organization during the</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>corona time. (Scale from 1 “strongly disagree” to 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“strongly agree”)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My organization…</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>… provides information in a timely fashion to people</td>
<td></td>
<td>0.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>like me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>… provides information that is relevant to people</td>
<td></td>
<td>0.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>like me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>… provides information that is complete.</td>
<td></td>
<td>0.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>… provides information that is easy for people like</td>
<td></td>
<td>0.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>me to understand.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>… provides accurate information to people like me.</td>
<td></td>
<td>0.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>… provides information that is reliable.</td>
<td></td>
<td>0.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>… provides detailed information to people like me.</td>
<td></td>
<td>0.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>… provides information that can be compared to</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>previous performance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>deleted</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Job-Specific State Anxiety

Please tell us how you feel at the moment with respect to your job. (Scale from 1 "not at all" to 7 “very much so”)

<table>
<thead>
<tr>
<th>Feeling</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel tense.</td>
<td>0.77</td>
</tr>
<tr>
<td>I feel upset.</td>
<td>0.88</td>
</tr>
<tr>
<td>I feel worried.</td>
<td>0.75</td>
</tr>
</tbody>
</table>

### Organizational Trust

Below you will find several statements about your organization. Please indicate how strongly you agree or disagree with each of these statements. (Scale from 1 “strongly disagree” to 7 “strongly agree”)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>I trust the organization to take care of people like me.</td>
<td>0.90</td>
</tr>
<tr>
<td>I feel confident that my organization acts in the best interest of people like me, even if I cannot monitor its actions.</td>
<td>0.90</td>
</tr>
<tr>
<td>Whenever this organization makes a decision, I know it will be concerned about people like me.</td>
<td>0.83</td>
</tr>
<tr>
<td>I believe this organization takes the opinions of people like me into account when making decisions.</td>
<td>0.79</td>
</tr>
<tr>
<td>The organization treats people like me fairly and justly.</td>
<td>0.87</td>
</tr>
<tr>
<td>The organization can be relied on to keep its promises.</td>
<td>0.87</td>
</tr>
<tr>
<td>I feel very confident about the skills of this organization.</td>
<td>0.81</td>
</tr>
<tr>
<td>I’m willing to let the organization make decisions for people like me.</td>
<td>deleted</td>
</tr>
<tr>
<td>I think it is important to watch this organization closely so that it does not take advantage of people like me.</td>
<td>deleted</td>
</tr>
<tr>
<td>This organization has the ability to accomplish what it says it will do.</td>
<td>deleted</td>
</tr>
</tbody>
</table>

### Job Engagement

Finally, here are some statements about how you are currently doing with your work. Please indicate again how strongly you agree or disagree with each of these statements. (Scale from 1 “strongly disagree” to 7 “strongly agree”)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>I really “throw” myself into my job.</td>
<td>0.72</td>
</tr>
<tr>
<td>I am totally into my job.</td>
<td>0.79</td>
</tr>
<tr>
<td>I am highly engaged in my job.</td>
<td>0.80</td>
</tr>
<tr>
<td>Sometimes I am so into my job that I lose track of time.</td>
<td>deleted</td>
</tr>
</tbody>
</table>
Public Ethos in the Pandemic Rhetorical Situation

Results

In accordance with Kline (1998), we executed a two-step structural equation modeling analysis using AMOS 26 software under maximum likelihood estimation (see Table 2). First, the measurement model was tested based on the a priori theoretical conceptualizations of the constructs. Second, we tested the structural model and the hypothesized relationships between the variables. In both steps, the cutoff criteria proposed by L. T. Hu and Bentler (1999) served as a reference point for the evaluation of the data-model fit.

TABLE 2 Discriminant Validity of Construct Measurements

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Transparent communication</td>
<td><strong>0.88</strong></td>
<td>0.79</td>
<td>0.32</td>
<td>0.48</td>
<td>0.25</td>
</tr>
<tr>
<td>(2) Organizational trust</td>
<td>0.79</td>
<td><strong>0.85</strong></td>
<td>0.36</td>
<td>0.52</td>
<td>0.21</td>
</tr>
<tr>
<td>(3) Job-specific state anxiety</td>
<td>-0.32</td>
<td>-0.38</td>
<td><strong>0.81</strong></td>
<td>0.33</td>
<td>0.51</td>
</tr>
<tr>
<td>(4) Job engagement</td>
<td>0.49</td>
<td>0.52</td>
<td>-0.34</td>
<td><strong>0.77</strong></td>
<td>0.68</td>
</tr>
<tr>
<td>(5) Job disengagement</td>
<td>-0.25</td>
<td>-0.22</td>
<td>0.51</td>
<td>-0.67</td>
<td><strong>0.77</strong></td>
</tr>
</tbody>
</table>

Note: Diagonal and bold elements are the square roots of the AVE (average variance extracted). Below the diagonal elements are the correlations between the constructs’ values, and above the diagonal elements are the HTMT (heterotrait-monotrait ratio of correlations) values. All bivariate correlations are significant at the p < .001-level.

Measurement Model

After deleting a few indicators that showed unsatisfactory factor loadings during initial confirmatory factor analysis (see Table 1), the final measurement model showed a good model-data fit ($\chi^2 = 438,564$ [p < .001]; df = 218; CFI = .973; TLI = .969; RMSEA = .049 [90% CI: .042, .055], SRMR = .042). Standardized factor loadings

---

Job Disengagement

- At the moment I can hardly concentrate on my work. 0.83
- I often think of other things when doing my job. 0.75
- I am not very productive at my job at the moment. 0.75

Note: SL = standardized loading; $\alpha$ = Cronbach’s alpha; CR = composite reliability; AVE = average variance extracted; all loadings are significant at the .001 level.
are reported in Table 1 and exceeded, in all cases, the ideal threshold of .70 (Chin, 1998). Strong reliability and convergent validity were indicated for all constructs (see Table 1): Cronbach's alpha scores ranged from .80 to .96 and composite reliabilities from .81 to .96, all exceeding the minimum threshold of .70. In addition, all AVE (average variance extracted) scores were above the cutoff criterium (> .50) for convergent validity (Hair et al., 2009). For a rigorous assessment of discriminant validity, we applied two techniques: the common Fornell-Larcker-criterion (Fornell & Larcker, 1981) and the more recently proposed heterotrait-monotrait (HTMT) ratio of correlations (Henseler et al., 2015; Voorhees et al., 2016). For all dyads of constructs, the Fornell-Larcker criterion was fulfilled, and the HTMT ratio was below the conservative threshold of .85, which indicates discriminant validity across all measurements (see Table 2). Overall, the constructs exhibit sound measurement properties.

**Structural Model**

Based on previous literature (e.g., Yue et al., 2019), age, gender, organizational tenure, position, and company size could potentially affect the endogenous variables and were included as controls in the structural model. Additionally, we assumed that whether an employee was working from home or at the regular workplace could possibly impact the endogenous variables (especially job-specific anxiety, job engagement, and job disengagement). Consequently, the share of time working from home due to the pandemic was included as a further control variable in the structural model. For reasons of model parsimony, only the significant paths from the control variables to the endogenous variables were retained in the final model (significant effects are reported in the annotations of Figure 1). Overall, the structural model demonstrated an acceptable fit ($\chi^2 = 659.963 \ [p < .001]; \ df = 285; \ CFI = .953; \ TLI = .946; \ RMSEA = .057 \ [90\% \ CI: .051 \ to .062], \ SRMR = .069$) and all hypothesized relationships were significant ($p < .05$). Hence, the hypothesized model was retained as the final model (see Figure 1).
Hypothesis Testing

The data reveal a positive relationship between transparent organizational communication and employees’ job engagement (β = .21, p < .05), supporting H1. As assumed in H2, transparent organizational communication had a significant negative effect on employees’ job disengagement (β = −.11, p < .05). Beside these direct effects, a main interest of the study was to assess the mediating influence of job-specific state anxiety and organizational trust.

In support of H3, job-specific state anxiety had a positive effect on job disengagement (β = .50, p < .001). Furthermore, the proposed attenuating effect of transparent organizational communication on job-specific anxiety (H7) was significant (β = −.33, p < .001). To examine whether job-specific anxiety mediated the effect of transparent communication on job disengagement, we conducted a mediation test using the bootstrapping procedure.
(N = 2,000 samples). A bias-corrected bootstrap interval completely below zero indicated a significant negative indirect effect ($\beta = -.17, p < .001, [95\% CI: -.25 to -.10]$) and supported H8. Thus, the lower the perceived organizational transparency, the higher the participants’ job-specific state anxiety, which then enhanced the level of job disengagement. For job-specific state anxiety, $R^2$ was .14, and for job disengagement, $R^2$ was .31.

In support of H4, organizational trust had a positive and significant effect on job engagement ($\beta = .36, p < .001$). Also, the positive effect of transparent organizational communication on organizational trust proposed in H5 was supported ($\beta = .79, p < .001$). The bootstrapping procedure resulted in a bias-corrected confidence interval completely above zero and supported a significant positive indirect effect ($\beta = .24, p < .001, [95\% CI: .11 to .38]$) of transparent communication on job engagement via employees’ organizational trust. This supports H6. For organizational trust, $R^2$ was .62, and for job engagement, $R^2$ was .29. To substantiate the above findings, we also estimated the model based on the data from the earlier study—all the hypothesized effects showed significance (see Appendix A3).

### Discussion

Grounded in the social exchange theory (Blau, 1964; Kahn, 1990) and the concept of organizational transparency (Rawlins, 2009), the purpose of this research was to examine the relationship between transparent organizational communication and job engagement, particularly job disengagement during the COVID-19 pandemic in Austria. Specifically, this study investigated the role of transparent organizational communication as a resource needed by employees during a crisis for engendering organizational trust and reducing job-specific anxiety, which were hypothesized to be important mediators explaining job (dis)engagement in employees.

The results emphasize the value of relevant, clear, complete, accurate, reliable, and verifiable information in a timely manner
during this health crisis to stimulate job engagement and protect employees and organizations from job disengagement. Contrary to the theoretical and empirical assumptions by Rawlins (2009), transparent communication is—at least in this study context—more adequately represented just through the dimension of substantial information (see also Schnackenberg & Tomlinson, 2016), as participation and accountability are insufficiently discriminant to organizational trust. With this adaptation to the transparency construct, the study confirmed the role of organizational trust as a relevant mediator of the relationship between transparent communication and job engagement (Yue et al., 2019). This suggests that transparent internal communication and trust are crucial to uphold employees’ willingness to provide resources in the form of job engagement throughout the crisis, when the environment is full of divergent information, negative reporting, and the risk of becoming infected by a potentially deadly virus. However, when employees do not perceive that they are receiving adequate resources from their employer in the form of transparent communication, the likelihood of disconnecting with work roles (Wollard, 2011) increased, as employees experienced enhanced job-specific anxiety. Yet, anxiety only weakly mediated the influence of transparent organizational communication on job disengagement, indicating that there are other factors that influenced job-specific anxiety during the crisis. Interestingly, younger employees perceived more job-specific anxiety during the COVID-19 pandemic than older employees, which is indicated by a significant effect of age on job-specific state anxiety ($\beta = -.21, p < .001$). This may be due to more unstable and precarious working conditions of younger people. The results further reveal that employees working in remote conditions were more disengaged from their jobs ($\beta = .15, p < .01$), which can be explained by their greater isolation and disconnection from their work environment. This finding points to the necessity for more resources than merely substantial information to prevent those working remotely from home to disconnect from their jobs.
Theoretical and Practical Implications

The study contributes to the current literature on crisis communication and the discussion about antecedents to protect organizations and employees from disengagement during a crisis. Additionally, the results of the study question the multidimensional conceptualization of transparent communication (Men & Stacks, 2014; Rawlins, 2009).

Above all, the study also confirmed the importance of transparent organizational crisis communication (Kim, 2018) for the context of the COVID-19 pandemic. The results complement prior research on organizational transparency (Jiang & Shen, 2020; Men & Stacks, 2014; Men et al., 2020; Yue et al., 2019) and support the theoretical relationship of transparency and engagement (Kahn, 1990). The research confirms the importance of socioemotional resource information as a relevant driver for desired reactions during an uncertain situation (Foa & Foa, 1980), thereby expanding the social exchange theory (Blau, 1964) to the context of a health crisis. Furthermore, the results are also consistent with findings from prior research on the value of organizational trust during crises (Siegrist & Zingg, 2014; Spalluto et al., 2020).

Importantly, this research contributes to the scarce findings on job disengagement during crises and fosters the debate about this construct (Kahn, 1990; Wollard, 2011). As shown, disengagement is influenced by transparent communication but not very strongly. During the COVID-19 pandemic, external stressors were most likely important causes of anxiety and, subsequently, disengagement. As J. Hu et al. (2020) already assumed in their study conducted in China and the U.S., the pandemic has mental and emotional influences that require sensitivity from crisis management. As the crisis context has most likely had a strong influence on people's emotional state, including job-specific state anxiety, appeasing communications and supportive management behaviors are likely antecedents that will help reduce stress and anxiety and, subsequently, disengagement over and above transparent communication. We can further assume that if a crisis originates from within the organization, the stressors may also be more
internal, and transparent communication may play an even bigger role in reducing disengagement. As noted by Kim et al. (2019), more research is needed to explore “the roles of emotions for internal crisis communication studies” (p. 13).

The research also contributes to the discussion on the conceptualization of transparency. As shown across two data sets, transparency may be more adequately conceptualized in a narrow way, as suggested by Schnackenberg and Tomlinson (2016) and as captured by Rawlins’s (2008, 2009) dimension of substantial information. The participation and accountability dimensions suggested by Rawlins may not adequately discriminate against other constructs like trust, as revealed by our research. Thus, we encourage scholars studying transparency to recognize this finding and pay close attention to the dimensionality and discriminant validity of the dimensions suggested by Rawlins.

With regards to practice, our research suggests that organizations should communicate substantial information that is related to the crisis situation and relevant for the organization and employees to encourage their workforce to reciprocate helpful resources, especially job engagement. In particular, this includes crisis-related information on safety measures, changes in working routines, the organization’s condition and its development, and what this means for employees with respect to their work and well-being. When such information is communicated in a way that fulfills the aspects of substantiability (Rawlins, 2009), employees will be intent on relying on management because they believe that their leaders are competent to take the right actions and have integrity and their best interests in mind. If this is met, organizations will be able to maintain an engaged workforce, even in an uncertain situation. If transparent organizational communication is missing, however, the risk of employees’ physical, emotional, and cognitive removal from work increases. Therefore, to minimize the potential loss of attentive and absorbed individuals, organizations should strengthen the efforts to meet employees’ needs during the crisis, which is possible through a transparent approach.
Limitations and Future Research Directions

This study has several limitations. First, the results are limited to the context of the COVID-19 pandemic in Austria. Nevertheless, the Austrian case does not differ significantly from several other countries in Europe that tried to contain the spread of the virus by shutting down public life since mid-March 2020, thereby causing a big strain on the economy and on employees. As the data were collected at one point in time—in the middle of the third shutdown in March 2021—the results represent a snapshot in time during this elongated crisis situation. This also means that a rigorous test of causality is not possible by means of the chosen design. Applying an experimental design could, therefore, be a next step. In addition, a mixed method approach combining quantitative and qualitative research would be valuable to better understand the role, value, and implementation of transparent organizational crisis communication in the work context during a pandemic.

This study relied on self-report survey data collected from single source individuals. Although a check of common method variance using Harman’s single factor test did not indicate any issues, future research can broaden the basis of data sources in order to gain more nuanced and thorough insights into the effects of transparent organizational communication during a crisis. Specifically, a case study approach would allow the triangulation of self-reported data about employees’ cognitive and emotional processes with content analysis data about an organization’s communication measures as well as observational data concerning actual job/organizational performance. Such a design would require a fully transparent research approach within an organization and cooperation with organizational members.

Another limitation results from the rather low influence of transparent organizational communication on job-specific state anxiety. It raises the question of further variables that influence job-specific state anxiety and, eventually, job disengagement. As indicated by the influence of age on anxiety, job-specific stability may have influenced job-specific state anxiety. Anxiety levels may have also increased over time with the developments of the COVID-19 pandemic becoming more severe (e.g., rising unemployment rates, business closures). Therefore, results have to be
interpreted in light of the specific situation one year into the pandemic. Job disengagement was also likely to be influenced by other factors like stressors at home, including responsibilities for children, home schooling, or social isolation in the case of people living alone. Disengagement may have also been caused by reduced wages that were introduced in sectors with slumps in orders. Thus, an investigation of the role of transparent crisis communication across industries can also be valuable, as different industries were differently affected by the pandemic.

Finally, another limitation is certainly the focus on a limited number of antecedents and mediators to explain job engagement and disengagement. Previous research has already shed light on the role of a servant leadership style to guide employees through the crisis and increase their willingness to stay engaged (J. Hu et al., 2020). While the research by J. Hu et al. was set in China and the United States, further research could explore the role of leadership styles and leadership communication during the crisis in Europe. In major organizational crises like those triggered by the COVID-19 pandemic, organizational leaders are particularly challenged to manage the situation and comfort their co-workers to prevent them from disengaging from their job. Lastly, we would like to encourage future research to take a closer look at different kinds of social resources used in crisis communication that stimulate reciprocation in employees in terms of cognitive, emotional, and behavioral outcomes.

ORCID
Julia Stranzl  https://orcid.org/0000-0002-6149-4185
Christopher Ruppel  https://orcid.org/0000-0002-1837-4575
Sabine Einwiller  https://orcid.org/0000-0002-3898-846X

References


Appendix

Study 2 refers to the survey that is presented in the main body of this paper, whereas study 1 refers to the original study that was conducted earlier in the pandemic and that first raised concerns about discriminant validity.

A1. Lack of discriminant validity between transparent communication and organizational trust (Study 1)

<table>
<thead>
<tr>
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<th>(1)</th>
<th>(2)</th>
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<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
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<td>(1) Substantiality</td>
<td>0.81</td>
<td>0.76</td>
<td>0.74</td>
<td>0.76</td>
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<td>(3) Accountability</td>
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<td>0.26</td>
<td>0.45</td>
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<tr>
<td>(4) Transparent communication</td>
<td>0.92</td>
<td>0.88</td>
<td>0.33</td>
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<td>0.24</td>
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<td></td>
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<tr>
<td>(5) Organizational trust</td>
<td>0.76</td>
<td>0.88</td>
<td>0.86</td>
<td>0.90</td>
<td>0.86</td>
<td>0.33</td>
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<tr>
<td>(6) Job-specific state anxiety</td>
<td>-0.35</td>
<td>-0.26</td>
<td>-0.23</td>
<td>-0.28</td>
<td>-0.31</td>
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<td>(7) Job engagement</td>
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<td>(8) Job disengagement</td>
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<td>-0.22</td>
<td>0.37</td>
<td>-0.54</td>
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*Note: Diagonal and bold elements are the square roots of the AVE (average variance extracted). Below the diagonal elements are the correlations between the constructs’ values, and above the diagonal elements are the HTMT (heterotrait-monotrait ratio of correlations) values. All bivariate correlations are significant at the p < .001-level. Highlighted values raise concern about discriminant validity.*
A2. Lack of discriminant validity between transparent communication and organizational trust (Study 2)

<table>
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</tr>
</thead>
<tbody>
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<td>(1) Substantiability</td>
<td>0.89</td>
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<td>0.74</td>
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<td>(2) Participation</td>
<td>0.78</td>
<td>0.81</td>
<td>0.88</td>
<td>0.84</td>
<td>0.26</td>
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<tr>
<td>(3) Accountability</td>
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<td>0.89</td>
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<td>0.84</td>
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<tr>
<td>(4) Transparent communication</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>0.90</td>
<td>0.87</td>
</tr>
<tr>
<td>(5) Organizational trust</td>
<td>0.77</td>
<td>0.83</td>
<td>0.84</td>
<td>0.90</td>
<td>0.85</td>
<td>0.31</td>
<td>0.52</td>
<td>0.20</td>
</tr>
<tr>
<td>(6) Job-specific state anxiety</td>
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<td>-0.29</td>
<td>-0.31</td>
<td>-0.33</td>
<td>0.80</td>
<td>0.32</td>
<td>0.50</td>
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<tr>
<td>(7) Job engagement</td>
<td>0.48</td>
<td>0.44</td>
<td>0.40</td>
<td>0.47</td>
<td>0.52</td>
<td>-0.33</td>
<td>0.77</td>
<td>0.68</td>
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<tr>
<td>(8) Job disengagement</td>
<td>-0.24</td>
<td>-0.17</td>
<td>-0.10</td>
<td>-0.17</td>
<td>-0.21</td>
<td>0.51</td>
<td>-0.67</td>
<td>0.77</td>
</tr>
</tbody>
</table>

Note: Diagonal and bold elements are the square roots of the AVE (average variance extracted). Below the diagonal elements are the correlations between the constructs’ values, and above the diagonal elements are the HTMT (heterotrait-monotrait ratio of correlations) values. All bivariate correlations are significant at the p < .001-level. Highlighted values raise concern about discriminant validity.

A3. The structural model with standardized path coefficients (based on the data from Study 1)

Note: All measurements are the same as in study 2 with the exception that for organizational trust the three items for overall trust have not been measured in this study. χ² = 940.895 [p < .001]; df = 291; CFI = .955; TLI = .946; RMSEA = .047 [90% CI: .043 to .050], SRMR = .050. Job-specific state anxiety: R² = .14; organizational trust: R² = .61; job disengagement: R² = .20; job engagement: R² = .27, ***p < .001, ** p < .01, * p < .05; n = 1,030.
Identifying the Public’s Psychological Concerns in Response to COVID-19 Risk Messages in Singapore

Xingyu Ken Chen1 ©, Anais Ang2 ©, Jing Yi Lee2 ©, Jason Wong1 ©, Neo Loo Seng1 ©, Gabriel Ong2 ©, and Majeed Khader2 ©

1. Nanyang Technological University, Singapore
2. Home Team Behavioural Sciences Centre, Ministry of Home Affairs

ABSTRACT
Understanding the social-psychological processes that characterize communities’ reactions to a pandemic is the first step toward formulating risk communications that can lead to better health outcomes. This study examines comments on Facebook pages of five Singapore media outlets to understand what topics are being discussed by the public in reaction to the implemented precautionary measures in Singapore so as to infer their psychological concerns. Using Anchored Correlation Explanation as a topic modelling technique, this study examines around 10,000 comments and identifies 21 topics that are discussed. The 21 topics were categorized and organized into seven broad themes of psychological concerns. Implications for theory and practice are then discussed.

KEYWORDS: COVID-19, public reactions, HBM, collectivism, risk perception, topic modelling

The COVID-19 pandemic has introduced a multitude of risks into people’s lives, both physical and psychological in nature (Ho et al., 2020). Many countries around the world implemented measures such as national lockdowns, quarantines, closure of workplaces and schools, and border restrictions to slow the spread of the COVID-19 virus.
A Brief Background to Singapore’s Response to the Pandemic

On January 23, 2020, Singapore announced its first imported case of the COVID-19 virus (Abdullah & Salamat, 2020). A nationwide partial lockdown, which is known as the Circuit Breaker, was imposed on April 7, 2020, to curb the rapid rise of COVID-19 community and dormitory cases in Singapore (Ministry of Health, 2020), which had grown to over 200 cases at the time. For example, during the Circuit Breaker, non-essential workplaces had to be closed and adopt telecommuting (Ministry of Health, 2020). Dine-ins at food establishments were not allowed, except for take-aways and deliveries (Abu Baker, 2020).

The measures worked, and the number of new cases had dropped significantly after August 2020 (Nurhayati-Wolff, 2021), and commentators credited it to the community’s role in complying with the measures announced by the government to combat the pandemic (Turrell, 2021). Singapore also had the lowest death rate in the world, which has been attributed to a combination of detection measures, an adaptable healthcare system, and a culture that was quick to adopt mask-wearing and other protective measures (Aravindan, 2020).

In terms of health risk communications, the local authorities used multiple channels of communication such as Facebook, Twitter, Telegram, and WhatsApp to provide frequent and timely updates about what people should do during such times as well as to inform them about the various restriction measures (e.g., mask-wearing, limitations in group-gatherings) that were implemented (Gov.sg, 2020; Leong, 2020). The government also leveraged local media outlets to spread the messages about precautionary measures that need to be taken (Koh, 2020).

Understanding Public Concerns on Social Media

The ability of individuals to carry out the recommended actions (e.g., practicing physical distancing) is critical in limiting the spread of the disease outbreak. Identifying the concerns that people can have toward government precautionary measures during a pandemic can have practical and conceptual significance for disease control. Furthermore, understanding the social-psychological
processes that characterize communities’ reactions to a pandemic is the first step toward formulating risk communications that can lead to better health outcomes.

Examining social media posts is important as social media has been used by the public as an immediate source of information not just during the COVID-19 pandemic but also disease outbreaks in the past (Jang & Baek, 2019). In the context of a health epidemic, there is a strong influence of an individual’s sources of information on their behaviour. For instance, researchers found that changes in media attention mirrored changes in the willingness of individuals to adopt precautionary actions during the 2009 H1N1 pandemic (Ibuka et al., 2010). During the COVID-19 pandemic, more Singaporeans turned to traditional news media and social media for swift and important crisis-related information (Rekhi, 2020). Chua (2020) found that while news of the outbreak has been featured in the local news since late 2019, a considerable spike in reactions on Facebook occurred when Singapore’s first case was announced. Comments found on such platforms can provide clues for understanding what the public’s concerns are and what should be done to address them.

Hence, the current study analyzed Facebook comments toward the Singapore government’s precautionary measures, which were collected from the pages of five Singapore media outlets. Approximately 10,000 comments collected from the Facebook pages of five Singaporean media outlets from January 2020 to June 2020 were analyzed to identify common concerns that surfaced. Consequently, identifying the concerns that led to the formation of pandemic-related health beliefs as well as the cultural factors behind the public’s reactions can widen the existing evidence base for existing health communication theories and policymaking.

**Health Belief Model in Pandemic Response**

According to the Health Belief Model (HBM), perceptions such as the perceived susceptibility to the disease or perceived self-efficacy are relevant in influencing the public’s beliefs toward the precautionary measures they should take during a health crisis. HBM posits that health-seeking actions are influenced
by individuals’ perceptions of the health risk and efficacy of the behaviours intended to address the threat (Rosenstock et al., 1988). In the current COVID-19 pandemic context, the HBM has been used as a framework for guiding effective risk communications to the public (Carico et al., 2020), educational interventions (Elgzar et al., 2020), recommendations for developing contact-tracing apps (Walrave et al., 2020), and understanding public perception about the virus (Jose et al., 2020).

According to HBM, the constructs proposed to predict health-seeking behaviour are: perceived threat (comprised of perceived susceptibility and perceived severity), perceived benefits, perceived barriers, and perceived self-efficacy. When assessing whether to act or not (i.e., complying with precautionary measures proposed by the government), the public is likely to need information related to the components in the HBM to inform their risk judgments—the likelihood of contracting COVID-19, the severity of contracting COVID-19, how effective the precautions are, and assurance that they would be able to carry out the proposed precautions.

HBM has been widely used in other public health campaigns as it can identify the main barriers to people’s intention to adopt a health behavior—often informing policies that create better health outcomes across various contexts such as increased physical activity, reduced smoking, and improved adherence to prescribed medications (Ng et al., 2012; Ryan et al., 2008). According to the HBM, people are more likely to perform health-seeking actions to address the threat when they perceive a health risk and have the self-efficacy to perform these actions.

Health risk communications that addressed the concerns that people have can affect an individual’s interpretations of the risk as well as their willingness and ability to act timely (Ryan et al., 2008; Vaughan & Tinker, 2009). These psychological concerns can range across various psychological needs such as autonomy over one’s decisions, feelings of being trusted and understood, and feeling able to manage the situation (Porat et al., 2020).
The Role of Collectivism in Pandemic Response

Cultural factors also play a role in pandemic response. During a pandemic, there are likely to be trade-offs between the collective and individuals in response to the threat. Members of more individualistic cultures, such as the United States, are socialized to value independence, autonomy, and being distinct from others. On the other hand, those in more collectivistic societies, such as Singapore and China, view the self as interdependent with other members, emphasize group cohesiveness, and give priority to group goals over individual goals (Triandis, 2001).

Cultural factors may impact individuals’ attention and perceived importance of stressors when assessing the threat, which in turn influences their psychological needs and behavioural response (Guan et al., 2020). Unsurprisingly, there have been multiple studies examining the influence of collectivism on several aspects of the COVID-19 pandemic, including infection transmission (Jiang et al., 2020), prevention intention (Huang et al., 2020), and compliance with precautionary measures (Huynh, 2020; Kasdan & Campbell, 2020).

Individual risk perception, psychological maladjustment, and emotional and behavioural responses during disease outbreaks have been found to differ across cultures (Germani et al., 2020). The individualism-collectivism dimension of culture, in particular, has often been used to understand the difference in responses and risk communication needs across different countries dealing with health crises (Kim et al., 2016; Willis & Painter, 2019).

The following research questions (RQs) were developed from the review of the literature on HBM and collectivism to understand the public’s concerns that were made in response to precautionary measures implemented by the government.

RQ1: What are the concerns that the Singapore public surfaced in response to the measures announced by the government?

RQ2: How does collectivism shape some of these concerns?

Hence, in order to contribute to the evidence base for risk communications during a health pandemic, the current study
examines the public’s reactions to government precautionary measures to identify their concerns from a psychological perspective. Approximately 10,000 comments collected from the Facebook pages of five Singaporean media outlets from January 2020 to June 2020 were analyzed to identify common topics discussed in these groups. The psychological concerns of the public were then inferred from these topics to help answer RQ1 and RQ2.

**Method**

**Data Collection and Cleaning**

Data from January 2020 to June 2020 was collected from the following Facebook pages of five media outlets reporting on events in Singapore: Channel News Asia, Mothership, The Straits Times, TODAY, and Yahoo Singapore. According to Statista (2020b), these media brands were the top five online sites used by Singaporeans. Furthermore, due to the heavy usage of Facebook in Singapore (Statista, 2020a), examining Facebook comments of these media brands over other social media platforms would provide a more reliable gauge of public concerns.

A set of keywords (e.g., “COVID,” “social distancing,” etc.) was used to obtain the relevant posts from the Facebook pages (see Figure 1). These keywords were selected by the authors based on the high face validity in extracting posts related to the topic of precautionary measures implemented by local authorities during the COVID-19 crisis. Posts with no comments were then removed to form a collection of 248 posts containing 40,686 comments. Inclusion and exclusion criteria (e.g., a post must reference a precautionary measure announced by Singapore to combat COVID-19) were used to determine if a post was relevant to the study. Then data cleaning (e.g., removing spam comments and conducting text preprocessing) was conducted. After the data cleaning was done, it reduced the number of posts to 118, containing 10,287 comments.
Data Analysis

Due to the volume of data and the nature of extremely short messages inherent in Facebook comments—a topic modelling technique, Anchored Correlation Explanation (Anchored CorEx) was used to analyze and identify topics that best describes the 10,287 Facebook comments. Anchored CorEx has been used in various areas of research, such as consumer purchases of vitamins (John et al., 2019), as well as to detect COVID-19 related stress symptoms (Li et al., 2020).

Anchored CorEx (Gallagher et al., 2017; Ver Steeg & Galstyan, 2014) is a semi-supervised approach, which was used to identify the topics in the dataset. Anchored CorEx is a topic modelling algorithm that examines how words are used in the messages that are being examined, and they pick up on patterns and estimate what the documents convey with little direct supervision from the researcher. As a semi-supervised approach, Anchored CorEx also allows the user to provide the topic model with “anchor words” that represent potential topics that the model should converge upon (see Figure 1).

Results

Description of the Topics Discussed on Facebook

Twenty-one topics were generated using Anchored Corex (see Table 1). Finally, a close reading of the messages in each topic was conducted in order to identify and group the topics into the themes of psychological concerns during public discussion of COVID-19 measures in Singapore. The inferred topics were then based on the analysis of the five most representative words as well as the comments for each topic. Figure 2 shows the histograms of topics for Facebook comments. As seen in Figure 2, the top three most discussed topics (Topic 14, 13, and 1) were inferred to be about: (1) Strong public support for the mobilization of law enforcement officers; (2) many people want to know more epidemiological information about the virus; (3) debate over the safety benefits versus privacy concerns of contact tracing devices. Next, the 21 topics were subsequently categorized and manually organized into seven broad themes of psychological concerns, which are surfaced by the public.
FIGURE 1 The workflow of collection and cleaning of Facebook comments and the use of Anchored Correlation in topic modeling

1) Selection of Facebook pages of local media brands
- Channel News Asia, Mothertongue
- Singapore, The Straits Times, Today Online and Yahoo Singapore

2) Keywords used to search each Facebook page relating to "Precautionary measures implemented by authorities during the COVID-19 crisis"
- COVID, virus, government, measures, speech, crisis, social distancing, quarantine, comply, circuit breaker, broadcast, overcome, message, reminded, contact tracing

3) Filtering posts based on inclusion and exclusion criteria
- Did the main bulk of the post’s content mention implemented precautionary measures?
- Is the post’s content about something that happened in Singapore?

Included content
- Authorities/Public agencies reminding/warning people to abide by precautionary measures
- Texts/infographics/videos that detail out and promote safety measures
- Real-life news of the Singaporean government implementing precautionary actions that reduce infection risks

Excluded content
- Anecdotes about fines and punishment deals cut to non-abiders
- Authorities expressing gratitude or encouraging the public to stay strong
- Statistical reports about the COVID-19 situation detailing infection cases and other states of affairs

4) Cleaning comments
- All identifying data (names and date of post) were removed

Additional criteria for removing comments
- Comments that were GIFs, videos, emojis, pictures, website links and contained no other text
- Comments that were irrelevant like the marketing/advertising of products, people or companies, or the promotion of scam websites
- Comments that were using the Facebook "tagging" function and contained no other relevant text

5) Text preprocessing for topic modelling
- Removal of URLs
- Remove punctuation and non-alphanumeric characters
- Lowercasing of words
- Lemmatization of words using WordNet
- Removal of stopwords (e.g., 'the', 'is')
- Word vectorisation done using TF-IDF

6) Anchor words used for guiding the Anchored CoEx topic model to converge upon
- 'location', 'tweak', 'privacy', 'threat', 'surveillance', 'phone', 'data', 'every move', 'one'
- 'gadget', 'smart', 'virus', 'device', 'throw away'
- 'foreign', 'foreign worker', 'dormitory', 'dormitory', 'small', 'twee'
- 'mask', 'saliva', 'drop', 'transmit', 'transmission'
- 'flip', 'change', 'shield', 'gov', 'mask'
- 'team', 'thank', 'appreciate', 'nurse', 'doctor', 'keep', 'salute', 'frontline', 'take care'
- 'listens', 'face mask', 'healthy', 'cooperate', 'home'
- 'exercise', 'cycling', 'jogging', 'park', 'public', 'outdoor', 'ideos'
- 'train', 'bus', 'public transport', 'transport', 'Google standard'
- 'supermarket', 'market', 'mall', 'crowd', 'control', 'limit', 'muse', 'time'
- 'enforce', 'serious', 'true', 'standout', 'enforcer', 'handle', 'strick', 'pandemic', 'still'
- 'china', 'first line', 'first', 'command', 'priority', 'tourist', 'travel', 'first', 'border'
- 'virus', 'spread', 'coronavirus', 'type', 'white', 'lab', 'program', 'one'
- 'action', 'army', 'police', 'enforce', 'enforce', 'take action', 'people', 'talk', 'make'
- 'school', 'teacher', 'student', 'learn', 'test'
- 'army camp', 'island', 'quarantine', 'isolate'
- 'skillfully', 'seas', 'dirt', 'boulevard', 'island'
- 'early', 'mistake', 'jan', 'new', 'late', 'react', 'start', 'begin', 'mass', 'first', 'test'
- 'second', 'wave', 'prepare', 'wait'
- 'vote', 'vote', 'election', 'wait'

21 topics identified via Anchored CoEx

Manual grouping into 7 themes
### TABLE 1  Topics inferred by CorEx (Post-anchoring) and top five most representative words for each topic

<table>
<thead>
<tr>
<th>Topic no.</th>
<th>Inferred topic</th>
<th>Five most representative words</th>
<th>Themes (Psychological concerns)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The debate over privacy concerns on contact tracing devices and if health concerns take priority over privacy concerns</td>
<td>‘track’, ‘phone’, ‘privacy’, ‘location’, ‘data’</td>
<td>1—Health takes priority over other needs like privacy, exercise and outdoor activity, and elections</td>
</tr>
<tr>
<td>2</td>
<td>Desire for the allocation of resources to more useful measures than contact tracing tokens</td>
<td>‘device’, ‘trace’, ‘waste’, ‘token’, ‘throw’</td>
<td>1—Health takes priority over other needs like privacy, exercise and outdoor activity, and elections</td>
</tr>
<tr>
<td>3</td>
<td>Concerns over foreign workers’ welfare and predicament</td>
<td>‘make’, ‘dormitory’, ‘foreign’, ‘small’, ‘foreign worker’</td>
<td>6—Showing concern to vulnerable populations like children, elderly, and foreign workers</td>
</tr>
<tr>
<td>4</td>
<td>Promoting the usefulness of masks in reducing infection risks</td>
<td>‘mask’, ‘wear mask’, ‘wear’, ‘solution’, ‘drop’</td>
<td>4—Stressing the importance of individual responsibility for reducing community risks</td>
</tr>
<tr>
<td>5</td>
<td>Need for government consistency in crisis response, especially over masks</td>
<td>‘mask’, ‘gov’, ‘change’, ‘shield’, ‘flip’</td>
<td>5—Expectations for the authorities to be better at crisis response like consistent communications and faster crisis response</td>
</tr>
<tr>
<td>6</td>
<td>Need for the public to be thankful to and cooperate with frontliners</td>
<td>‘thank’, ‘keep’, ‘take care’, ‘doctor’, ‘team’</td>
<td>4—Stressing the importance of individual responsibility for reducing community risks</td>
</tr>
<tr>
<td>7</td>
<td>Seeking for everyone to play their part in taking protective action to reduce infection risks for the community</td>
<td>‘home’, ‘stay home’, ‘listen’, ‘healthy’, ‘stay’</td>
<td>4—Stressing the importance of individual responsibility for reducing community risks</td>
</tr>
<tr>
<td>8</td>
<td>Unhappiness over people’s irresponsible exercising decisions which threatens the safety of others</td>
<td>‘public’, ‘exercise’, ‘park’, ‘idiot’, ‘jogging’</td>
<td>1—Health takes priority over other needs like privacy, exercise and outdoor activity, and elections</td>
</tr>
<tr>
<td>Topic no.</td>
<td>Inferred topic</td>
<td>Five most representative words</td>
<td>Themes (Psychological concerns)</td>
</tr>
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<tr>
<td>10</td>
<td>Need for more suitable protective measures in supermarkets to reduce infection risks</td>
<td>‘time’, ‘control’, ‘crowd’, ‘market’, ‘supermarket’</td>
<td>3—Need for safety in public areas like public transport, supermarkets, and workplaces</td>
</tr>
<tr>
<td>11</td>
<td>Support for more severe punishment for non-abiders</td>
<td>‘still’, ‘fine’, ‘enforce’, ‘handle’, ‘serious’</td>
<td>2—Willingness to support fines and increased law enforcement for the sake of safety</td>
</tr>
<tr>
<td>12</td>
<td>Desire for greater priority on local Singaporeans’ safety before addressing economic concerns</td>
<td>‘china’, ‘first’, ‘control’, ‘travel’, ‘border’</td>
<td>5—Expectations for the authorities to be better at crisis response like consistent communications and faster crisis response</td>
</tr>
<tr>
<td>14</td>
<td>Desire for the mobilization of the army and police to strictly enforce measures</td>
<td>‘make’, ‘talk’, ‘action’, ‘enforce’, ‘police’</td>
<td>2—Willingness to support fines and increased law enforcement for the sake of safety</td>
</tr>
<tr>
<td>16</td>
<td>Fear of quarantine facilities spreading the infection to nearby workplaces and buildings</td>
<td>‘quarantine’, ‘island’, ‘isolate’, ‘army camp’, ‘john island’</td>
<td>3—Need for safety in public areas like public transport, supermarkets, and workplaces</td>
</tr>
</tbody>
</table>
### Identifying the Public’s Psychological Concerns in Response to COVID-19

<table>
<thead>
<tr>
<th>Topic no.</th>
<th>Inferred topic</th>
<th>Five most representative words</th>
<th>Themes (Psychological concerns)</th>
</tr>
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<tr>
<td>17</td>
<td>Concern over the elderly’s ability to cope during the crisis</td>
<td>‘home’, ‘old’, ‘elderly’, ‘senior’, ‘alone’</td>
<td>6—Showing concern to vulnerable populations like children, elderly, and foreign workers</td>
</tr>
<tr>
<td>18</td>
<td>Dissatisfaction over the authorities’ response time and the need for more timely measures to curb the infection spread</td>
<td>‘start’, ‘late’, ‘begin’, ‘early’, ‘mistake’</td>
<td>5—Expectations for the authorities to be better at crisis response like consistent communications and faster crisis response</td>
</tr>
<tr>
<td>19</td>
<td>Desire for a successful solution to the crisis via mass testing</td>
<td>‘test’, ‘mass’, ‘case’, ‘kit’, ‘covid’</td>
<td>2—Willingness to support fines and increased law enforcement for the sake of safety</td>
</tr>
<tr>
<td>20</td>
<td>General fear of a second wave of disease outbreak</td>
<td>‘wait’, ‘wave’, ‘prepare’, ‘second’, ‘wait till’</td>
<td>2—Willingness to support fines and increased law enforcement for the sake of safety</td>
</tr>
<tr>
<td>21</td>
<td>Safety worries concerning the election during a crisis</td>
<td>‘election’, ‘vote’, ‘win’, ‘like’, ‘singaporean’</td>
<td>1—Health takes priority over other needs like privacy, exercise and outdoor activity, and elections</td>
</tr>
</tbody>
</table>

Note: ‘john island’ refers to St. John Island, an island in Singapore
Theme 1: Protection from the Threat of the Pandemic Takes Priority over Other Concerns Like Privacy, Exercise, and Elections

This theme focused on the public’s concern of focusing on protecting oneself from the health threat posed by COVID-19. For example, for some members of the public, privacy infringements (Topic 1) are considered relatively trivial, as seen in a comment like this: “Privacy is not an issue because cctv is everywhere . . . already tracking our movement . . . This device government-issued contact-tracing device] . . . can save lives and allow our economy to stay open, why oppose? . . .” However, these arguments are still contested by others, who counter that by stating that “… do people want it to be even more invasive being tracked by local authorities . . . may even come with built-in listening devices . . . track all citizens’ movements in the future . . .” Others have wondered if resources can be better spent in other more effective measures besides contact tracing tokens as seen in comments such as: “Will we end up creating more digital junk and wasting the money that could have gone to a more useful purpose?” (Topic 2). The public was also quick to express unhappiness over others who go to public spaces to exercise (Topic 8), which could increase the spread of the disease, as
seen in the comment here: “... people still go to East Coast Park. Lots of them ... Just because it was stated that we could exercise ... we exploit the ruling ... What does it take to drill it into our thick skull that this is a situation that our lives are at stake?”

It was also during 2020 where Singapore’s general elections were held. Prior to the elections, the public was surfacing their concerns about a possible spread of COVID-19 if an election were to be held (Topic 21).

**Theme 2: Willingness to Support Fines and Increased Law Enforcement for the Sake of Safety**

This theme showed that the public was willing to support fines (Topic 11; e.g., the comment here, “... implement fine and jail sentence for people who just won’t listen to social distancing ... the Mentality of Singaporeans and How you can make us listen—We Fear Fines.”) and greater law enforcement (Topic 14; e.g., “Why keep on talking and no action? Can’t you deploy the NEA, Police Force and the Active Soldiers, to enforce/make sure all Singaporean and Foreigners do their part and comply with the Circuit Breaker Measures.”) to prevent a worsening of the situation, such as a second wave of infections. Some even desired the government to take strong actions (Topic 19, 20) such as implementing mass testing and preventing people who are tested positive from further spreading the disease (e.g., “Pls look into saliva test kits ... If everyone has this available in their household and make to test every day and stop them from going out to public places if they are tested positive”).

**Theme 3: Need for Safety in Public Areas Like Public Transport and Supermarkets**

This theme focuses on the worry over potential vectors for disease outbreaks and the public’s concerns about the safety of these public areas, such as public transport (Topic 9; e.g., “How to do social distancing ... The most easy area virus spreading is in the enclose area like MRT and Buses. Never focus root cause”), supermarkets (Topic 10, e.g., “It’s the structural concept of the supermarket—the width of the alleys are not wide ... You can control the traffic outside the supermarket ... but it’s not possible to control traffic of customers within the supermarket bcos there are alot of movements.”).
**Theme 4: Stressing the Importance of Individual Responsibility for Reducing Community Risks**

The fourth theme is about the role of an individual’s actions in safeguarding the community. The importance of individual responsibility in fighting the virus for the collective good has been consistently stressed, such as wearing of masks (Topic 4; e.g., “Source or self MFG face mask is the solution . . . mask can prevent droplet from entering their nose and mouth. Give free mask when a person goes into a building or MRT . . .”) or to self-isolate (Topic 7; e.g., “Let us just do our part and stop criticising, complaining for now . . . The crucial part is we should all stay at home . . . Stay safe and stay healthy.”). Additionally, frontline staff were appreciated for their role in the pandemic fight, and some have urged others to help them by staying at home (Topic 6; e.g., “Thank you all the doctors, nurses n those in the hospital helping to prevent the COVID-19 virus and we will do our part to STAY AT HOME!”)

**Theme 5: Expectations for the Authorities to Be Better at Crisis Response Like Consistent Communications and Faster Crisis Response**

The fifth theme illustrates dissatisfaction with the government’s handling of the situation and reflects the public’s expectations for the authorities to safeguard them from harm. Some have claimed that much more stringent efforts should have been done much earlier by the authorities, (Topic 18; e.g., “If u and your colleagues were more determined n resolute in your approach in March, waited for new developments day by day, Singapore would be in better position today. Never wait for the storm. Drastic measures like Safe Distancing n Circuit Breaker could have initiated earlier in March.”). Policy U-turns, especially regarding advice on masks, can create anxiety and show how the public desires consistent messaging (Topic 5; e.g., “. . . the mark of an incompetent set of leaders is flip-flopping of policies . . . First wear mask only when unwell, now wear . . . DEAR LEADERS, THINK THOROUGHLY FIRST CAN BEFORE OPENING YOUR MOUTHS CAN?”). During the pandemic, some expressed dissatisfaction with the easing of travel restrictions implemented, stating that there is no need to rush to
open up until the situation is completely normal (Topic 12; e.g., “. . . government so eager to open to China first when Singaporeans have not even gone back to normal life! . . . there is no need to rush to open to them first! Stop making the citizens pay for the mistake!”).

**Theme 6: Showing Concern to Vulnerable Populations Like Children, Elderly, and Foreign Workers**

The sixth theme reflects the concerns that the public has for vulnerable populations such as the elderly, children, and foreign workers. For the elderly, there were concerns about their ability to adopt protective actions to keep themselves safe during the crisis (Topic 17; e.g., “Please spare a thought for elderly with dementia. It is hard to keep them cooped up at home and also hard to get them to wear a mask all the time when they are taken out for a short walk. They will not understand the need for a mask and will yank out the mask.”). For the children, there were concerns over infection risks in schools and preventing them from potential exposure to the virus (Topic 15; e.g., “But remember Teachers. What you are teaching are theory only . . . The correct thing to do now is close all schools and do e-learning. Prevent the kids from exposure.”). For the foreign workers living in dormitories, there is the worry of infection risks due to communal living (Topic 3; e.g., “. . . living conditions of the dormitories too crowded, plus the poor hygiene knowledge of the workers . . . dormitory management group who must implement the corrective plans and actions for the dormitories”).

**Theme 7: Sensemaking about Coronavirus Situation**

The final theme (Topic 13) concerns how the public makes sense of the pandemic by discussing the epidemiological characteristics of the virus (e.g., “Virus have ZERO mobility. It has no legs, wings or fins. It relies on humans to transport them from host to host. If humans stop transporting them, the transmission of COVID WILL STOP”) as well as discussion and rumors of the origins of the pandemic (e.g., Coronavirus may have originated in lab linked to China’s biowarfare program.”).
Discussion

To address RQ1, the topic modelling approach has helped to quickly and empirically identify psychological concerns in response to the COVID-19 pandemic. As seen in Table 1, the top three most discussed topics were inferred to be about: (1) Strong public support for the mobilization of law enforcement officers; (2) many people want to know more epidemiological information about the virus; (3) debate over the safety benefits versus privacy concerns of contact tracing devices. Subsequently, the topics were grouped into seven themes. The pattern of the themes was consistent with the HBM and collectivism, which will be discussed below.

Perceived Susceptibility and Public Concerns

The findings indicate that one construct found within HBM, perceived susceptibility, can be mapped onto some of the themes. Perceived susceptibility to health risk is seen in Theme 3, reflecting the public’s concern about the risks in public areas like public transport, supermarkets, and workplaces. People may feel the need for better health and safety measures taken during the COVID-19 pandemic, especially in public areas where there is a perceived high likelihood of viral transmission due to high human traffic and interaction. Likewise, how other people in the public spaces comply with the precautionary measures would also influence their perceived vulnerability of contracting the virus. Taken together, it is important to provide reassurance to the public that the authorities have put in place and reinforced safety measures in the public areas and that others are complying with these measures.

Theme 7, which is about sensemaking during a coronavirus situation, shows the public’s need to gather information on the measures taken to manage the spread of the virus. As a sensemaking activity, information gathering helps them to understand the COVID-19 situation better, as well as the risk of contracting the COVID-19 virus and the actions they should take to protect themselves and others (Rosenstock et al., 1988). During the COVID-19 pandemic, Singaporeans are likely to turn to mainstream news media (e.g., The Straits Times and Channel News Asia) and social
media sites (e.g., Facebook) for swift and important crisis-related information.

**Collectivism in Response to a Pandemic**

Moreover, the themes were also consistent with how people in collectivistic culture respond to a crisis. Singapore is considered a collectivistic culture, and the public's values and priorities may manifest as psychological concerns during a pandemic and when the local authorities issue risk warnings. To address RQ2, themes on placing priority on safety benefits over privacy concerns and looking to authorities for more information and mobilization of precautionary measures explored how collectivism shapes some of these public concerns.

For example, in Theme 1, the protection from the pandemic threat is given more priority over other issues like privacy, exercise, and elections. This is consistent with existing research on how people in collectivistic cultures tend to prioritize the collective interests of the group (Hofstede, 2001). During a health crisis, the public will be more concerned about whether the nation can sufficiently protect its citizens from the COVID-19 threat. Hence, the public in Singapore likely expects authorities to put the nation's health at the forefront in their response to the COVID-19 pandemic, at the expense of individual interests (e.g., desire to socialize in public places, inconvenience of wearing masks, etc.).

There are also expectations for individuals to be responsible for reducing the risk of COVID-19 transmission in the community, as seen in Theme 4. These expectations are consistent with the understanding that people in collectivistic cultures are more likely to perceive their own health outcomes as dependent on the actions taken by other people, especially if those people are in their close social circle (Germani et al., 2020). They are more likely to stress the need for individuals to put collective interests at the forefront to feel that they are protected from the COVID-19 virus.

Furthermore, Theme 6 is about showing concern to vulnerable populations like children, the elderly, and foreign workers. As people in collectivistic societies tend to perceive themselves as highly interdependent and connected with others in their communities,
during periods of heightened threat like the COVID-19 pandemic, feelings of collectivism rise, along with the need to protect other members of society. This manifests as the public’s need for reassurance that their ingroup members, especially those who are particularly vulnerable to the threat, will be taken care of.

In a similar vein, the willingness to support stiffer penalties and law enforcement for the sake of safety from the disease, as seen in Theme 2, is consistent with research that people from high power distance societies tend to respect and accept what the authorities propose is best for the country (Schermerhorn & Bond, 1997). Individuals are expected to act according to social norms in collectivistic cultures. During a pandemic, these norms include preventive health behaviors such as maintaining good personal hygiene, physical distancing, and wearing a mask in public. In tight societies like Singapore, there is a low tolerance for deviating from these norms and not adhering to proposed measures for the collective good of society. Hence, this translates to individuals wanting and being more accepting of stringent precautionary measures, government surveillance, and more serious punishments for deviance (Gelfand et al., 2011; Guan et al., 2020).

**Implications**

We found that HBM proved to be a valuable tool for identifying perceived susceptibility as one of the public’s concerns during a pandemic. According to HBM, people are more likely to perform health-seeking actions to address the threat when they perceive a health risk and have self-efficacy to perform these actions.

Before they assess whether to act or not, the public needs to gather information related to the threat, which is the COVID-19 pandemic in this context. Hence, to aid the public in making sense of the COVID-19 situation, authorities need to provide information related to the components in the HBM: the likelihood of contracting COVID-19, the severity of contracting COVID-19, the effectiveness of the measures that are used to tackle COVID-19 transmissions, and assurance that they would be able to perform the proposed measures to minimize the spread of COVID-19.
Analyzing the information shared on social media platforms can be helpful to local authorities for assessing and addressing the public’s concerns. Existing work has demonstrated the value of social media in communicating crisis information to the public during a pandemic (Chua, 2020; Kaila & Prasad, 2020).

The possibility of combining HBM and cultural factors such as collectivism can provide a more holistic picture of the public’s concerns during a pandemic. More collectivistic societies such as Singapore are more likely to support actions to protect the collective interest. Individuals are expected to engage in health behaviors like mask-wearing or self-isolation for the collective good over any perceived benefits to themselves. For collectivistic societies, there is greater support for punitive actions against behaviors that undermine the collective good and for authorities to police such behavior. During times of crisis, the public has greater expectations of the authorities to be able to effectively manage the crisis. Given the role that collectivism plays in shaping public concerns, this highlights that in a pandemic response, it is important to consider the role of cultural factors in shaping the public’s willingness to adopt a recommended health behavior.

Limitations and Future Directions

First, this study examined Facebook comments of Singapore media brands, which means that this study’s findings may not be fully generalizable to other countries due to differences in cultural factors. More work can be done in terms of exploring cultural differences in risk communications during a health pandemic by comparing data from different countries.

As the working language for Singapore is English, the study was done using English-language posts and comments. However, Singapore has four official languages as well as media brands that serve news content in these languages. Future work can capture the comments of the public in these other media brands as it can provide a more comprehensive understanding of public concerns by segments of society who do not use English-language sources of news.
Finally, the current study analyzed comments in response to government precautionary measures on social media in the first 6 months to infer the psychological concerns that the public may have by using a topic modelling approach. However, as the pandemic situation is still ongoing, there may be unforeseen situations that can appear, which would create new topics for analysis. More work can be done to explore how these topics emerge and change over time to better understand how these needs can shift over time.

**Conclusion**

The current study analyzed comments in response to government precautionary measures on social media to infer the psychological concerns that the public may have. A better understanding of these concerns can help authorities communicate risks more effectively, leading to more accurate risk perceptions and desirable behavioral responses during crises.

**ORCID**

Xingyu Ken Chen  🌐 https://orcid.org/0000-0003-3733-4015
Anais Ang  🌐 https://orcid.org/0000-0002-3774-6573
Jing Yi Lee  🌐 https://orcid.org/0000-0002-1885-9871
Jason Wong  🌐 https://orcid.org/0000-0003-1226-9536
Neo Loo Seng  🌐 https://orcid.org/0000-0003-1956-6816
Gabriel Ong  🌐 https://orcid.org/0000-0003-3239-0480
Majeed Khader  🌐 https://orcid.org/0000-0002-7928-2332
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Identifying the Public’s Psychological Concerns in Response to COVID-19


Why Swedes Don’t Wear Face Masks During the Pandemic—A Consequence of Blindly Trusting the Government

Bengt Johansson1 ©, Jacob Sohlberg2 ©, Peter Esaiasson2 ©, and Marina Ghersetti1 ©

1. Department of Journalism, Media and Communication, University of Gothenburg, Göteborg, Sweden
2. Department of Political Science, University of Gothenburg, Göteborg, Sweden

ABSTRACT

Government trust is generally helpful for societies, especially in crisis situations, such as during the COVID-19 pandemic, because governments rely on citizens to follow directives. Worldwide, with supporting evidence accumulating, a key directive has been to wear face masks. However, in Sweden, the government has questioned their usefulness. On other behavioral recommendations, such as handwashing, the government has taken a conventional path. We rely on this non-recommendation of face masks to examine the causal impact of government trust on behavior. Based on a large Swedish survey fielded during the pandemic, we find that higher government trust reduces the likelihood of wearing face masks. In contrast, higher trust increases the likelihood of handwashing. The findings qualify the conclusion about the beneficial consequences of trust.

KEYWORDS: government trust, face masks, handwashing, Sweden, coronavirus, COVID-19

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CONTACT
Bengt Johansson • E-mail: bengt.johansson@jmg.gu.se • Department of Journalism, Media and Communication • University of Gothenburg • Box 710 • SE-40530 Göteborg, Sweden

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A long-held truth in the social sciences is that high levels of citizen trust in government is conducive for democracy, in large part because it helps in generating legitimacy for authoritative decision-making (Hetherington, 2005; Marien & Hooghe, 2011; Rothstein, 1998). The importance of trust is particularly acute during crises, when citizens are expected to follow instructions from government authorities (Christensen & Laegreid, 2005; Siegrist & Zingg, 2014). Thus, in order to manage crises, including the COVID-19 pandemic, governments rely on citizens to agree to even far-reaching restrictions on their personal freedoms (Devine et al., 2020; Van Bavel et al., 2020).

Taking the trust-compliance relationship as the point of departure, our paper makes two contributions to this literature. The first concerns are to address the need for closer examination of the direction of causality between trust and compliance (Siegrist & Zingg, 2014). As will be developed, we leverage a case in which government authority instructions on protective measures deviated from the recommendations of international expertise on a key aspect, and map how citizens adopted the instructions depending on their levels of government trust. This design, with its high external validity due to the real-world situation, allows us to infer what is likely a causal impact of government trust on voluntary compliance with government instructions.

Second, the empirical case we study highlights a previously less discussed boundary condition for the trust-compliance relationship needed to facilitate crisis management. As explained below, high levels of citizen trust only help to mitigate a crisis when government recommendations are accurate and helpful. In other words, high trust in government might actually be harmful for citizens’ ability to cope with a dangerous situation if the recommended measures are inadequate.

Our case is the Swedish strategy to handle the COVID-19 pandemic. Just like in other countries, Swedes were implored to follow a number of protective measures to stop the spread of the virus, whereof social distancing and handwashing were the most important. However, the instructions from the Swedish government authorities stand out with regard to the use of face masks (PHA, 2020; see also https://www.bbc.com/news/
International crisis management institutions, such as the World Health Organization (WHO, 2020) and the European Centre for Disease Prevention and Control (ECDC, 2020), had repeatedly promoted face masks as a helpful protective measure, and this policy was gradually adopted by governments across the globe. By the early fall of 2020, the Swedish government was the only government in the developed world that did not recommend, or require, its citizens to wear face masks in any context (Andersson & Aylott, 2020; Petherick et al., 2020). In fact, in the spring, statements were made that face masks could be counterproductive in certain circumstances (Expressen, 2020; PHA, 2020). If the trust-compliance relationship works as suggested in the literature, high trust in Swedish government authorities would lead to a higher likelihood of citizens complying with certain recommendations such as to wash hands carefully, but simultaneously a lower likelihood of wearing face masks.

For empirics, we draw on a web survey with a large sample of adult Swedes (n > 10,000) conducted in the fall of 2020, just before and at the beginning of the second wave of the COVID-19 pandemic in Sweden. For some key variables, we also have panel data information that goes back to the first phase of the pandemic in the spring of 2020.

**Literature Review**

**Trust in Government, Adoption of Protective Measures, and Crisis Communication**

Trust in government and government institutions is often treated as a crucial element when dealing with crises and disasters (Christensen & Laegreid, 2005; Poortinga & Pidgeon, 2003; Siegrist & Zingg, 2014; Van der Weerd et al., 2011). A lack of general government trust may influence risk perceptions and undermine people's willingness/ability to mitigate risks and support risk management (Devine et al., 2020; Siegrist & Zingg, 2014; Van der Weerd, 2011).

Health communication research conducted during previous pandemics, such as the Ebola outbreak in 2014–2016 (Blair
et al., 2017; Morse et al., 2016), the SARS pandemic, the avian influenza, and the H1N1 (swine flu) pandemic (Siegrist & Zingg, 2014), confirm that respondents with high government trust are more inclined to take precautionary actions to protect themselves and abide recommendations to mitigate the spread of the disease. However, as Siegrist and Zingg conclude in their overview of the field, the causal interpretation of these studies is questioned since they build on weak designs for causal inferences. For example, they mainly rely on cross-sectional data without persuasive identification strategies.

Also, with regard to the COVID-19 pandemic, research indicates that trust is conducive for compliance with government recommendations, although there are exceptions (Ling Wong & Jensen, 2020). Studies from the early phases of the pandemic observe that high trust in government institutions is associated with willingness to adopt protective measures such as social distancing, washing hands, testing for infection, and wearing face masks (Devine et al., 2020). Further, higher trust is related to higher levels of obeying regulations and recommendations (Han et al., 2020; Olsen & Hjorth, 2020), lower mortality rates (Oksanen et al., 2020), and intention to get vaccinated (Parson Leigh et al., 2020).

To sum up, previous research theorizes that there is a causal relationship between trust in government and its institutions and citizens’ compliance with protective measures. However, confidence in this assumption would be strengthened if it rested on studies using research designs more suited at establishing causality. By analyzing the contrasting government recommendations in Sweden regarding the use of face masks and handwashing during the COVID-19 pandemic, we can more precisely address the causal relationship.

Our design rests on the peculiarities of the Swedish case, where the crisis communication from the government is consistent with almost all other countries in the world regarding the importance of handwashing, but stands out when it comes to the use of face masks, which also has caused intense public debate and critique. By analyzing this contrast in recommendations, we are better
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positioned to explore what is presumably a causal effect of compliance on protective measures.

**Sweden: Risk Culture, COVID-19 Strategies and Crisis Communication**

Sweden is characterized by a pronounced state-oriented risk culture (Cornia et al., 2016). Government institutions are expected to effectively administer disaster prevention, mitigate ongoing crises, and to guide and inform citizens through a crisis. Furthermore, Swedish governance relies on highly independent government authorities, and the Swedish government early announced that it would follow the advice of the Public Health Agency (PHA) during the COVID-19 pandemic (Pierre, 2020). Accordingly, Sweden’s strategy for handling the pandemic was designed and communicated by the PHA through frequent press conferences, interviews, and information campaigns. When we address the trust-compliance relationship in Sweden during the COVID-19 pandemic, we thus refer to trust in government authorities, not the political dimension of government. This distinction is not emphasized in previous research on trust and crisis management, mostly because government control over authorities is stronger in many countries, but also because governments in most countries may declare a state of emergency and centralize authority during a crisis. State of emergency can only be declared in Sweden during wartime (Pierre, 2020).

A prerequisite for the Swedish state-oriented risk culture is trust, and in international comparison, Sweden has high levels of both institutional and interpersonal trust (Martinsson & Andersson, 2019; Ortiz-Ospina & Roser, 2020), levels that increased even higher due to the rally effect during the first months of the coronavirus crisis (Esaiasson et al., 2020; Johansson & Vigsø, 2021). The high levels of trust were also the cornerstone in the Swedish coronavirus strategy; the public was expected to voluntarily follow the recommendations of the experts (Johansson & Vigsø, 2021).

Compared to other countries, the Swedish response to the COVID-19 pandemic was less invasive, and without a lockdown (Andersson & Aylott, 2020; Petherick et al., 2020). Rather than
coercive measures, the strategy has relied on advice and recommendations, many of which were similar to those in other countries. People were encouraged to wash their hands frequently and avoid social contacts, especially indoors. Importantly, the PHA never recommended, leave alone mandated, the use of face masks in Sweden. The arguments being that masks did not protect against being infected, that wearing a mask risked inducing false security and lower people’s caution, and that incorrect handling of the mask might even lead to increased spreading of the virus (PHA, 2020). Even as more scientific evidence accumulated on the usefulness of masks, especially in reducing the spread from infected people to others (Chu et al., 2020), the PHA maintained that the evidence was insufficient. In this respect, Sweden’s strategy differed remarkably from countries worldwide (see Figure 1).

FIGURE 1  Face Covering Policies During the COVID-19 Pandemic, Oct 26, 2020
While we do not have specific evidence from the survey, based on previous research on information seeking and news media consumption, we can assume that Swedes were aware of the specific recommendations by the PHA. Not only were the agency’s press conferences followed directly by large audiences, but they were also reported on widely in the news media. With Swedes being high news consumers in general, and especially during a crisis (Andersson, 2020), it is likely that people knew of the recommendations and how they diverged from those in other countries. Not at least since citizens could compare the non-use of face masks in Sweden with media reporting of people using face masks in other countries. In addition, the PHA’s position on the use of face masks was publicly debated, and the non-use of face masks was the most frequently recurring question from journalists during the daily press conferences (Dahlgren, 2021).

Hypotheses

Against this background, we can explicate the logic of our research design. Since trust generally increases compliance, and since governments want their citizens to protect themselves from the coronavirus, we expect that Swedes with higher trust in government will willingly comply with the action recommended by the government authorities, such as frequent handwashing. However, and this is why the Swedish case is informative about the potential causal character of the trust-compliance relationship, when it comes to wearing face masks, trust in government is expected to lead to other behavioral consequences in Sweden than in the rest of the world. Since there is no recommendation from the government authorities to wear face masks in public places, trusting Swedes will not make the extra inconvenience of wearing them. More formally, our hypotheses are:

**H1:** Swedes with higher trust in government are *more* likely to wash their hands more frequently than Swedes with lower trust in government.

**H2:** Swedes with higher trust in government are *less* likely to wear face masks in public than are Swedes with lower trust in government.
Method

Participants
Our data is from the Citizen Panel, which is maintained by the Laboratory of Opinion Research (LORE) at the SOM-institute, University of Gothenburg. The panel includes around 75,000 adult members from all over Sweden. A smaller portion of the panel has been recruited through probability-based methods, but an overwhelming majority are self-recruited. Most panelists participate in surveys and experiments twice a year (www.gu.se/som-institute). We invited a portion of the panel to our survey. The survey was fielded between September 15 and October 26, 2020, and was completed by 10,226 respondents. We also leverage that some survey questions were asked to the same individuals in a previous panel-wave in February and March 2020.

As with the panel at large, our sample is made up of opt-in participants. For example, the sample has a higher educational attainment than the Swedish population and is therefore not representative in this respect. Therefore, point estimates should be interpreted with caution. However, what is more important is that there is variation in the variables, enabling us to examine the relationship between our key factors. Descriptive statistics are available in Appendix A1.

Measures and Analytical Strategy
Our outcome variables are two pandemic-relevant behaviors: handwashing and face mask wearing. Handwashing was measured by asking, “Last month, were you more careful with hand hygiene?” To measure the usage of face masks, we asked the respondents, “Last month, did you wear a face mask?” For both types of behavior, respondents could choose between “yes” or “no” as response options. Eighty-eight percent said they were more careful with handwashing while 12 percent reported that they were not. Nineteen percent had worn a face mask and 81 percent had not. In the analysis below, yes is coded as 1 and no as 0.

One way of thinking about the analytical approach is that it shares similarities with a within-subjects design that has occurred naturally in the Swedish context. In one treatment, subjects are
given the recommendation that they should do something to reduce the spread of COVID-19 and, in another treatment, they are not recommended to act in a certain way. Obviously, in a within-subjects design, the outcome variable should be the same. In our case, it is admittedly not—one is about handwashing and the other about wearing face masks—but to the extent that they are both behaviors that aim at reducing the spread, they are equivalent.

Still, since we are cognizant that logic of the within-subject design might not apply in this case, we include variables in the models that aim at reducing omitted variable bias. Specifically, we estimate three models for each outcome. First, we report the effect of government trust while including interpersonal trust as a covariate in the model. Interpersonal trust is included since the two trust concepts are related (Vallier, 2019), and we want to reduce the risk of omitted variable bias due to this factor. Second, we add other covariates as controls. They include several background factors such as age, sex, education, and so on. Moreover, we control for left–right ideology, party support, and news consumption (domestic and foreign). Third, we study the effects of government trust while controlling for pre-crisis levels of government trust. Here, we rely on the panel components of the data. In addition, we test if the effects on the two dependent variables are different.

We measured trust in government, our main independent variable, with the following question: “Generally speaking, how much trust do you have in Swedish government authorities?” Five response options were available (“Very low,” “Rather low,” “Neither low nor high,” “Rather high,” and “Very high.”). Unless otherwise noted, this and other variables have been re-coded to range from 0 to 1, with higher values indicating more trust ($M = 0.70$, $SD = 0.24$).

Interpersonal trust was measured with the following question: “In your opinion, to what extent is it generally possible to trust people?” The endpoints were labelled with “People cannot generally be trusted” and “People can generally be trusted.” Five response options were available ($M = 0.75$, $SD = 0.24$). We measured exposure to foreign media on the coronavirus by asking respondents the extent to which they search for information about the coronavirus in foreign media. Five response options were
available, ranging from several times a day to never. Exposure to domestic media on the coronavirus was measured with a similar question and response option, but it asked about domestic media instead. Higher values indicate more information search. Left-right ideology was measured by asking respondents to place themselves on an 11-point scale where endpoints (far left and far right) and the midpoint (neither left nor right) were labelled. Higher values indicate more right-leaning. Party support is dummy coded where government supporters are the baseline. Opposition party support and other party/don’t know/ref are dummies in the model. Sex is dummy coded where female is the baseline and male = 1. Age of the respondent is measured with six categories. Education indicates the respondent’s highest educational attainment. The variable has nine categories, with higher values indicating more education. Location is dummy coded with “Large city (central)” as the baseline. Dummy categories are “Large city (suburb),” “City (central),” “City (outskirts),” “Town,” “Small town,” and “Country-side.” Foreign-born is a dummy variable indicating the country of birth, where born in Sweden is the baseline. Government trust lagged is trust in institutions measured the same as above, but in February or March 2020 (M = 0.64, SD = 0.25). Interpersonal trust lagged measures social trust, also in February or March with the same questions and options as above (M = 0.73, SD = 0.23). Table A1 has additional details on frequency distributions by variables.

**Results**

We expect that government trust will have contrasting effects on washing hands and wearing face masks. Because of the binary outcome variables, we rely on logistic regression for estimates. Turning first to handwashing, our results show that higher government trust is associated with greater likelihood of more careful hand hygiene, which yields support for H1. For example, we find that the average likelihood of careful hand hygiene at the lowest level of trust is 0.82 while it is 0.91 at the highest level of trust. The odds ratio is 2.108 (95% CI [1.618, 2.748], p < 0.001) according to the results in model 1 of Table 1. The results are also illustrated by Figure 2. There seems to be somewhat of a reduced effect when we
include more covariates (models 2 and 3), but the effect of government trust is largely the same, and still statistically significant ($p < 0.05$) in both models. As expected, people who trust government authorities tend to follow its recommendations.

**FIGURE 2  Probability of Careful Hand Hygiene by Government Trust**

Next, we turn to H2 and the likelihood of wearing face masks. Figure 3 shows that higher government trust is associated with a lower likelihood of wearing face masks. For example, an individual at the lowest end of the trust scale (“Very low”) had a probability of 0.33 whereas someone at the highest end (“Very high”) had a probability of 0.14. The odds ratio of the estimate is 0.335 (CI: 0.270 – 0.417, $p < 0.001$). This provides support for H2. In other words, for this type of behavior, trust in government authorities has the opposite effect compared to the effect on handwashing. These results are robust to the inclusion of additional control variables, as the results in models 2 and 3 show. The figure is based on the first model of Table 2, where only interpersonal trust is included as a control variable. It is especially noteworthy that the effect is substantially the same even when prior levels of trust are taken into account (model 3) since this model reduces the risk of omitted variable bias.
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<th>(2) Odds ratio</th>
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<th>(4) Odds ratio</th>
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Note: The first column of each model are logit coefficients with standard errors in parentheses and the second column are odds ratios with confidence intervals (95%) in parentheses. For measurement and coding of control variables, see appendix. *** p<0.01, ** p<0.05, * p<0.1
We are studying two behavioral outcomes where the government has given contrasting recommendations. Besides finding that the effects are statistically significant on their own and in opposing directions, we complement this analysis by simultaneously estimating the models and testing if the coefficients are different. The $\chi^2$-test is statistically significant at $p < 0.001$, thus rejecting the null hypothesis that they are similar, which again affirms the contrasting effects noted above.

**Other Determinants of Washing Hands and Wearing Face Masks**

Besides government trust, other factors also appear to play a role in handwashing. Table 1 (model 2) shows that people who pay more attention to domestic media’s coverage of the coronavirus are more likely to engage in careful handwashing (OR: 3.998, $p < 0.001$). Given that domestic media have devoted a substantial portion of their coverage to the importance of hand hygiene, mirroring the position of relevant institutions, this finding has a plausible explanation. In addition, this exploratory analysis of statistically significant results indicates that older individuals are less likely to wash hands than younger individuals are (OR: 0.664, $p = 0.002$).
**TABLE 2**  Determinants of Wearing Face Mask

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Note: The first column of each model are logit coefficients with standard errors in parentheses and the second column are odds ratios with confidence intervals (95%) in parentheses. For measurement and coding of control variables, see appendix. *** p<0.01, ** p<0.05, * p<0.1
As for other factors associated with wearing face masks, we find that men seem less likely to wear masks than women (OR = 0.795, \( p = 0.001 \)) and that individuals who consume a great deal of foreign media appear more likely to wear masks than those who do not (OR = 5.730, \( p < 0.001 \)). Moreover, mask wearing seems more common among highly educated people (OR = 1.607, \( p < 0.001 \)) and among people on the right of the ideological spectrum (OR = 1.326, \( p = 0.05 \)). In addition, the findings indicate that individuals living outside the centers of large cities (the baseline category) are generally less likely to wear masks.

Of these findings, it is perhaps the relationship between foreign media consumption and wearing face masks that is the most intriguing. It seems as people who get their information from abroad, where face masks are generally recommended, tend to adjust their face mask behavior accordingly.

**Discussion**

To investigate the causal effect of government trust on compliance with government instructions, we leverage a peculiarity in the Swedish strategy in response to the COVID-19 pandemic: citizens are recommended to wash their hands frequently, but are not encouraged to wear face masks. From this, we derive two predictions about differential behavior: If government instructions impact causally upon the precautionary measures individuals are willing to undertake, citizens with higher trust in government will be more likely to be careful with hand hygiene than citizens with lower trust in government, but less likely to wear face masks. Our findings from a large and diverse sample of Swedish adults generate precisely this pattern. The results hold under control for prior levels of trust in government, and a host of potential confounding variables like interpersonal trust, partisanship, news media use, education, age, and gender.

However, as trust levels are observed and not induced at random, our findings are not conclusive, but with the logic of the within-subjects design and statistical adjustments, they strengthen the belief in a causal interpretation of the trust-compliance relationship that frequently appears in the literature on risk and crisis.
management/communication. It does indeed seem that high levels of government trust is conducive for the citizens’ willingness to follow government recommendations during crises.

Consequently, the government’s crisis communication will have extensive possibilities to change citizen behavior during a crisis, at least in a state-oriented risk culture like Sweden. Further, the government can then even recommend and effectively implement protective measures, which contradict advice given by international health organizations like the WHO/ECDC, and citizen’s mediated experiences of the situation in other countries.

In relation to this, we return to the prerequisite for effective crisis management that we mentioned in the introduction—that the government provides the best possible advice to its citizens. When citizens put their trust in the government and follow its recommendations, they rely on the government’s ability to both evaluate risks and to put citizen’s interest first (Hamm et al., 2019). In essence, people use the government as a source cue to simplify a complex information environment. For this approach to work, enabling a form of low-information rationality (see Popkin, 1991) the quality of the recommendations is crucial. If recommended protective measures turn out to be ineffective, or even detrimental, high trust becomes counterproductive in citizens’ attempts to cope with a crisis. High trusting citizens will consequently be less capable compared with low trusting citizens to protect themselves and others if they follow government recommendations, which underlines the normatively problematic aspects of blind trust.

The possible harm of giving inadequate advice also relates to the literature on risk and crisis communication ethics. According to the precautionary principle, measures should be taken to eliminate risks (Leslie, 2006) and significant choice so that citizens, based on accurate and relevant information, may be able to protect themselves, or at least make an informed choice about what to do (Ulmer et al., 2011). Since trust is such a powerful tool in risk and crisis communication, practitioners should acknowledge the great responsibility that comes with this mechanism. What if the given recommendations are inaccurate? And if so, what are the consequences for government trust and future possibilities of effective crisis communication?
There are, of course, several limitations of this study. The question of causality in the trust-compliance relation has already been discussed, so also consequences of the non-probability sample. Further, while the study has variation in measures of recommended and non-recommended behavior, we lack appropriate questions about other types of behavior. For example, additional measures of adopting recommended social distancing would have strengthened the analysis of the trust-compliance relationship. Furthermore, the investigation of the trust-compliance relationship in this study is limited to a state-oriented risk culture and one could assume that the effectiveness of communicating protective measures is lower in risk cultures with lower institutional trust (Cornia et al., 2016). Also, one should acknowledge the Swedish system of governance, having independent government authorities. The combination of independent government authorities and a tradition of these agencies being responsible for managing the crises might have strengthened the citizens’ willingness to follow recommendations. Since government authorities are independent from the political side of government, the issue of face masks was never politicized in a way as we have seen in other countries, like the United States. In order to understand the effectiveness of trust in crisis communication, we need therefore investigate how the trust-compliance relationship plays out in countries where crisis management is more strongly connected to the prime minister/president and the cabinet. Therefore, even if the Swedish case gives us some important takeaways on the trust-compliance relationship, and the ethical implications of this relationship, we need to further investigate the scope and limitation of trust in crisis communication.

ORCID
Bengt Johansson  https://orcid.org/0000-0002-8980-1677
Jacob Sohlberg  https://orcid.org/0000-0002-3195-6895
Peter Esaiasson  https://orcid.org/0000-0001-8572-5462
Marina Ghersetti  https://orcid.org/0000-0001-9670-8983
References


### APPENDIX TABLE A1  Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable/Options</th>
<th>Freq.</th>
<th>Percent</th>
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<td><strong>Used face mask last month</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>8,229</td>
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<tr>
<td>Yes</td>
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<td><strong>Careful with hand hygiene</strong></td>
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<td><strong>Interpersonal trust</strong></td>
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<td>2</td>
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<tr>
<td>Total</td>
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</tr>
</tbody>
</table>
“A Tale of Two Hospitals”: The Role of Place-Based Sensemaking in COVID-19 Communication for Rural and Urban Texas Hospitals

Cassandra Hayes¹, Rachel E. Riggs¹, and Kelly Burns¹

1. College of Media and Communication, Texas Tech University, Lubbock, TX, USA

ABSTRACT

Rural and urban hospitals must respond differently to crises such as the COVID-19 pandemic, given their unique situations. In this study, we performed a rhetorical analysis of press releases from rural and urban hospitals in Texas to better understand the crisis communication strategies of the two hospital systems. Following previous literature on narrative sensemaking, place-based storytelling, and pre-crisis management, we found that the examined press releases used setting details to ground their health-related information in their specific communities. Such a strategy made the information accessible and attainable, but potentially reinforced place-based tensions and inequalities. Our study has implications for preventative sensemaking research as well as for crisis communicators attempting to better reach specific communities during a long-term, developing crisis.

KEYWORDS: sensemaking, narratives, COVID-19, crisis communication, health communication

ACKNOWLEDGMENT

We would like to thank Dr. Bolanle Olaniran for early feedback that helped in developing this paper.

When rumors of a new, highly contagious virus began to circulate in early 2020, hospital administrators across the United
States began to revisit their crisis plans for handling a pandemic. The experiences of hospitals as they prepared for COVID-19 were not uniform; these hospitals and the communities they serve have well-established narratives that incorporate their unique situations, tensions, and ideals into their pre-crisis planning and crisis communication. For example, because of a lack of testing infrastructure in rural areas, confirmed case numbers may not be accurate in these areas (Weinberg, 2020). Also, larger hospitals in urban areas can see large influxes of patients, and these hospitals must treat their patients while using resources wisely and keeping workers safe (Chowdhury et al., 2020). In this study, we examined how the different challenges of rural and urban hospitals led to different approaches to COVID-19 crisis communication efforts that were particularly suited to each hospital’s unique environment.

Crisis communication researchers, healthcare practitioners, and hospital administrators must better understand the ways in which rural and urban hospitals shape narratives to make sense of the pandemic and communicate with their stakeholders. Individuals perceive reality through narratives and often communicate their perceptions to others through stories (Fisher, 1984). Narrative sensemaking, as explored by Weick (1995) and Brown (2004), provides a useful theoretical foundation to investigate the methods used by rural and urban hospitals to plan for the COVID-19 pandemic. Previous work on the need for anticipatory crisis management in order for an organization to respond effectively with crisis communication also has implications for our study, as we find that the cultivating of place-based exposition is essential to pre-crisis planning (Olaniran & Williams, 2001). The storied past of hospitals and the communities in which they serve impacts every step of the pre-crisis planning stages and beginning stages of crises.

In this study, we examined online press releases using close-textual analysis in conjunction with contextual rhetorical criticism to compare the communication strategies implemented by two hospitals in Texas at the pre-crisis and early months of the COVID-19 pandemic in the United States. The two hospitals selected for this study include the Comanche County Medical Center (CCMC), a regional hospital serving rural communities in Comanche and
Erath county, and the Methodist Health System (MHS), a large hospital system serving the Dallas-Fort Worth metropolitan area. In this study, we examine the use of place-based narratives as sensemaking tools, used in press releases of a rural and urban hospital as they attempted to manage the then-developing spread of the COVID-19 crisis. We argue that effective, preemptive place-based narrative exposition within crisis communication allows for better perceptions of legitimacy and relationship-building between an organization and its publics (Clementson, 2020; Lee & Jahng, 2020; Yang et al., 2010). However, at the same time such narratives can also reinforce place-based tensions and inequalities that oversimplify or misrepresent multidimensional crises (Peterson, 2010). Through this comparative rhetorical analysis, we hope to better understand the unique place-based narrative sensemaking strategies used by rural and urban hospitals in preparation for the COVID-19 pandemic.

**Cases: Rural and Urban Hospitals Face COVID-19**

The impact of the COVID-19 global pandemic might be unprecedented, but researchers, practitioners, and doctors on the frontlines of healthcare in the United States were preparing for the crisis for months prior to its spread to the United States. Hospitals took several recommended steps to slow the outbreak and ease the pressure of treating COVID-19 patients (Centers for Disease Control and Prevention [CDC], 2020; Marx et al., 2020). Hospital preparedness can include strategies for using resources effectively and securing necessary funding, promoting organizational legitimacy, and fostering a trusting relationship with the public through pre-crisis communication. Despite early efforts to prepare for crises (CDC, 2018), hospitals in the United States were ill-prepared for such a long-term and wide-reaching crisis as COVID-19 (Cagliuso et al., 2008). The continued improvement of crisis communication strategies can help hospitals and other community leaders better prepare to reach out to their communities during future crises.

Previous literature in the fields of crisis communication and management has explored the importance of local context on crisis
response. The situational crisis communication theory (SCCT) outlined the importance of context for how members of the public respond to crises, arguing that organizations should respond to crises based on how responsible they were for the crisis and how much their reputation hinges on their response (Coombs, 2007). Given such a theoretical foundation, the response of hospitals to a public health crisis is highly important to their legitimacy and reputation as organizations and impacts how they will respond to crises in the future. Further, construal level theory notes the importance of psychological distance on how the public responds to crises, as a person will not worry as much about an event perceived as far away as they will an event perceived as nearby or imminent (Liberman & Trope, 1998; Spence et al., 2012). The foundational assumptions of crisis communication—that context matters—provides a helpful framework for understanding the different challenges shaping public perceptions in the early months of the pandemic, due to the differences in perceived distance between their communities and the crisis.

Rural and urban hospitals respond differently to crisis because of unique struggles, communities, and resources. During a crisis, rural hospitals like the CCMC must consume limited resources quickly. The planning and preparation process of an emergency situation is essential to rural hospitals because of limited access to equipment, supplies, personnel, and infrastructure (Office of Rural Health Policy, 2002). In the event of a long-term crisis such as COVID-19, rural hospitals have been brought to the brink of bankruptcy because of the quick depletion of resources without financial payouts. Even before the global pandemic, since 2010, 120 rural hospitals have had to shut down due to lack of funds, and over 21% of rural hospitals were found to be financially unstable (Topchik et al., 2020). Texas hospitals have not been immune from the issues facing rural hospitals. Many Texas hospitals were already struggling to stay financially afloat, and the COVID-19 pandemic did little to ease the pressure on limited staffing and resources (Walters, 2020). Texas rural hospitals’ lack of personnel, funding, and resources created an urgent need for assistance in the response to COVID-19.
Urban hospitals, such as the hospitals that comprise the MHS, faced their own unique challenges in response to COVID-19. Because of their multifaceted public as well as their larger internal membership and structure, urban hospitals must be transparent, correct rampant misinformation, and establish partnerships with diverse local communities in order to be effective with their crisis communication (Liu et al., 2018). Despite similar funding being set aside for disaster preparedness, rural and urban hospitals differ significantly in their available resources, crisis training, plan development, perceptions of preparedness, and surge capacity—especially essential during a pandemic (Vick, 2019). Diffusing health information also faces different challenges in rural and urban areas. For instance, 25% of rural Americans do not have regular access to broadband internet, compared to less than 2% of urban Americans; 47% of rural hospitals are losing money with their operations; and 25% of rural hospitals are at a high risk of closing—leading to the hospitals having to limit some of their operations, such as public relations personnel and initiatives (Dornauer & Bryce, 2020). Within the hospitals included in our analysis, the personnel difference in communications is striking—MHS has four individuals dedicated as media contacts and a full marketing department, while CCMC has only two on-staff individuals working on community outreach. In short, rural hospital emergency response requires a different response than urban hospitals due to differences in funding, location, and personnel.

**Literature Review**

**Narratives, Place, and Pre-Crisis Management**

Throughout history, people have used stories to make sense of the world around them, giving order to chaotic reality, navigating complicated life events and social systems through narrative structure (Fisher, 1984; Fisher, 1985). Narrative sensemaking theory examines such use of storytelling, attempting to explain how and why people use stories to make sense of social structures, relationships, crises, and other notable environments and events. Our analysis of press releases from CCMC and MHS during the COVID-19 crisis operates within the framework of narrative sensemaking.
theory, attempting to shed light on how rural and urban hospitals set up narrative structures within their rhetoric to build a trusting relationship, founded on legitimacy, with the members of their communities—a relationship that can withstand the tests of a crisis situation.

Crisis communication is a complex phenomenon central to the ability of organizations to survive and sustain themselves through uncertainty. Crisis response calls for three main goals: (a) disseminating instructing information, (b) disseminating adjusting information, and (c) reputation management (Coombs, 2015). One way organizations can simplify complex happenings to provide needs for action and avenues to act that lead to reaching crisis response goals and broader organizational goals is through establishing stories about environments and events. Brown (2004), expanding on Weick (1995), included narratives as an effective sensemaking strategy for organizations, as stories use hindsight to structure events for both individuals and a community. Sensemaking can be defined as the process of trying to explain and give meaning to a confusing or complex object or event in a more simplified and approachable manner, literally “making of the sense” (Weick, 1995, p. 4). Because narratives are so central to the human experience, they are especially apt in making sense of crisis events.

Prior scholarship on sensemaking focuses on the individual process of retrospectively sorting through crises. Sensemaking as originally outlined by Weick (1995) involves retrospection, a process of individuals looking back and sorting out past experiences. However, scholars such as Sandberg and Tsoukas (2015) have pointed out the need to examine prospective sensemaking that allows room for organizational change and can be more actively guided to shape future action. Within this study, we use the term preventative sensemaking, which we define as making sense of future action through communicating, interacting, and storytelling about a past action, to take a prescriptive approach. Under our conceptualization, preventative sensemaking involves recursive storytelling, recycling narratives to give meaning to future or developing events. These narratives do not spring from nowhere; they are inherently social and contextualized by nature. As explained by Weick (1995) sensemaking is always a social activity,
as it involves an ongoing process of sorting through experiences and giving them meaning through a collective process of interaction within a social context. For this study, we focus not on how individuals recursively sort through crises through sensemaking, but, rather, on how organizations can guide a preventative sense-making process for their members and the public through effective storytelling.

Narrative sensemaking scholars have generally identified narratives according to three criteria: (a) involvement of characters, (b) action ordered to create causal inferences, and (c) a setting that constrains the action (Abolafia, 2010; Boje et al., 2016; Boudes & Laroche, 2009). Within this study, we focus particular attention on settings and social contexts, including place-based details and invocations of place, that guide the preventative sensemaking process.

**Place-Based Storytelling**

Organizational stories are not one-size-fits-all constructions—they reflect and respond to the community that surrounds and circulates them. Tisch and Galbreath (2018) noted a phenomenon they called “community sensegiving,” in which an organization’s social connection to the surrounding public plays a large role in organizational resiliency and the ability to survive through crisis. Recently, scholars such as Clementson (2020) and Lee and Jahng (2020) have noted the importance of narratives in crisis communication, as stories are powerful persuasive tactics, can shift blame and act as vehicles for essential information, and can build legitimacy and trust for an organization. Further, organizational communication, including crisis communication, cannot be separated from its surrounding context, as risk itself is socially produced and shaped by the culture that surrounds it (Masuda & Garvin, 2006). As Peterson (2010) found, in order to be effective, crisis and health communicators must consider the place-based nature of the information and assurance they are trying to communicate. Long before a crisis event occurs, public relations practitioners should be carefully shaping sensemaking stories that reflect a deep knowledge of the specific community that surrounds the organization.
Crisis sensemaking narratives involve rhetoric that fits the situational context and a shared sense of meaning perceived by the public and members of an organization (Gephart, 2007). Although not much work has examined the important dimension of place in sensemaking narratives, scholars have found that consideration of context is essential to encouraging effective sensemaking (Ingle et al., 2011). Further, setting is often identified as a central ingredient of narratives that constrains the actions of characters and the progress of characters. Many rhetorical analyses of sensemaking narratives focus on characters and causal action, determining how blame can be shifted within a text, or the specific persuasion tactics of organizational communicators (Boje et al., 2016; Boudes & Laroche, 2009). The important constraints and impact of setting, especially placed-based exposition or backstory, is an underexplored topic in rhetorical crisis communication studies on sensemaking, but one that needs much further research, given the importance of context to crisis communication as well as the need for crisis communicators to reach specific communities with information.

Place-based storytelling includes narratives that invoke specific dimensions and qualities of the setting where the characters live and action happens. Rather than a macro-narrative that offers an omnipresent, god-like view of the larger forces behind a story, placed-based storytelling is micro-focused, explaining small day-to-day details of life in that specific place. At times, place-based stories are essential to fully explaining a larger narrative, as Moors (2019) noted with the Flint water crisis, because public media stories do not always capture the full experience of everyday citizens. Further, place-specific details can act as unifying rallying points to build legitimacy for a movement or organization (Endres & Senda-Cook, 2011). In crisis communication, a situation when making information accessible is key, close attention to constructing and reflecting setting through the use of place-based narratives can better reach multifaceted and dispersed communities.

We argue that invocations of place are central to preventative sensemaking storytelling. An extension of place-based storytelling, in which small details about the specific geographical context are used to describe the setting of narratives, "invocations of
place occur when rhetors, such as crisis communicators, recall past action and behavior of a place’s community in order to guide future or developing action. The term *invocations* is often used in the context of ancient Greek rhetoric, such as the work of Homer, when ancient rhetors used invocations, calls to deities or spiritual forces, to boost their own credibility as speakers and offer a cue for the story pattern to follow (Minchin, 1995; Minton, 1960). Going beyond simple inclusion of setting, context, or place-based details, an invocation of place is a call to action or request for help from the forces of the place itself. It is recalling the recycled narratives of a place to be used to make sense of future or developing action, and is, therefore, a central feature of preventative sensemaking.

**Exposition and Crisis Preparedness**

We focus our rhetorical analysis for this study on press releases during the early months of the COVID-19 crisis in the United States before a surge of COVID-19 patients began reaching either CCMC or the MHS. Our focus is on pre-crisis communication and management, specifically the narratives that the press releases presented to the public in an effort to guide the hospitals’ communities through a sensemaking process for the imminent pandemic. To inform our interpretations of the impacts of the pre-crisis narratives, we use the Anticipatory Model for Crisis Management as outlined by Olaniran and Williams (2001). Particularly, we accept the idea that crisis management begins long before an actual crisis occurs, and effective crisis communication hinges on the many steps taken to manage a crisis preemptively and ethically.

Narrative sensemaking as a process relies on hindsight using story structures to sort out confusing events or complex circumstances that have been confronted in the past (Boudes & Laroch, 2009; Brown, 2004; Bute & Jensen, 2011). However, the press releases we analyzed show that organizations can offer place-based expository narratives and invocations of place that encourage members of the public to use similar stories to make sense of crisis events that may occur in the future. In other words, crisis communicators can offer pre-planned structures to guide the public’s sensemaking process, as long as the narratives used are specific to the public’s setting and meet each community’s individual
needs. Previous studies show that narratives are not a handy sensemaking technique that springs from nowhere following a crisis. Rather, narratives need to be cultivated around and within organizations in order to be used in crisis situations to maintain the legitimacy and stability of an organization (Auvinen et al., 2013; Golant & Sillince, 2007; Patriotta, 2003). Such past research implies the possibility of crisis communicators fostering anticipatory narrative sensemaking strategies.

Practitioners of organizational communication should keep in mind that they are perpetually building potential exposition for future narratives that will be used to make sense of crises and the organization itself. Exposition is backstory, a pause in the action of a narrative during which the narrator explains past events. Exposition frames a narrative, giving it both context and meaning, and, as found by Alexander (1997), exposition guides the motivations and knowledge-seeking of the audience. The previous goals of crisis response all require effective, but different, application of expository details within communications. Instructing information, by nature, must communicate specifics about place in order for the public to understand what to do to protect themselves during a crisis, while reputation management can include reminding the public of the organization’s positive past action in the community (Coombs, 2015). Such an understanding of the goals of crisis response emphasizes that, to sustain themselves, organizations must have a positive backstory of some kind that can be reinforced during a crisis. Using the concepts of setting and exposition, our analysis of CCMC and MHS press releases during the early COVID-19 crisis emphasizes that pre-crisis placed-based activities set up the success or failure of the public’s eventual narrative sensemaking strategies. The research questions guiding our analysis include:

**RQ1**: How are (a) invocations and (b) characterizations of place used in the press releases of CCMC and MHS during the early months of the COVID-19 crisis in the United States?

**RQ2**: What is the rhetorical impact of characterizations of place in the press releases of CCMC and MHS during the early months of the COVID-19 crisis in the United States?
Method

For this study we conducted a rhetorical analysis, specifically a close-textual analysis that examined particular persuasive and narrative features of each included artifact. Although we look at the text of each press release in isolation to determine rhetorical features at work within the text, we also consider the larger social and organizational context of each crisis communication artifact, guided by our research questions. The analysis was comparative in nature—six press releases from CCMC were analyzed in isolation, then four press releases from the MHS were analyzed. The press releases under analysis were chosen as the only press releases on the organizations’ websites, directly before and within the early months of the COVID-19 crisis in the United States, published between January 2020 and early June 2020. Following the close-textual analysis of the press releases themselves, we then studied the larger social context for how CCMC and the MHS faced the COVID-19 pandemic. In the tradition of other rhetorical analyses, such as Carpenter (1977) and others (Crines, 2013; Hamlet, 2011), we conceptualize “rhetorical impact” as highly interpretive, determined through examination of the texts themselves and their surrounding historical and cultural context.

Because around eight in ten questions about health start through seeking information online (Fox & Duggan, 2013), we chose to analyze only press releases readily available on hospital websites. Although many sensemaking studies examine how individuals both within organizations and in the public retrospectively sort through crisis situations, we instead focus on how the CCMC and MHS attempted to guide their communities through a preventative sensemaking process. Therefore, we are focused more on the organizational statements themselves, rather than public perception of how the organizations handled the crisis. Press releases are by their nature meant to guide the narrative surrounding organizational events, both when published online by the organization or sent directly to journalists, and press releases serve as a foundation on which members of the media can build a larger story (Lassen, 2006). As we are attempting to analyze the preventative sensemaking process and how an organization can guide the
narratives that individuals may later use to make sense of an event, press releases are appropriate artifacts for analysis.

Although we include case study contextual information in our analysis, the bulk of our analysis takes a rhetorical approach. A rhetorical approach to studying crisis communication examines the development, framing, and interpretation of messages created by organizations, as pre-crisis threats and crises task organizations to create messages that demonstrate the organization’s wisdom and position the organization as ethical in a strategic way (Heath & Millar, 2003). In this analysis of the pre-crisis management of CCMC and MHS, we view press releases released during the pre-crisis planning phase as “rhetorical statements designed to demonstrate the commitment, trustworthiness, and alignment of a company with community interests” (Heath & Millar, 2003, p. 7). Given the limited number of press releases analyzed by this study, we attempt not to make broad claims about the effects of the pre-crisis communication of these organizations—rather, the limited amount of artifacts allows us to analyze deeply the narrative sensemaking strategies within the text, aligning with our study’s exploratory aim to better understand how place-based narratives can be used in pre-crisis communication to guide the sensemaking process for the public when a crisis does occur.

Analysis

Place-based indicators act as the setting dimension of the narratives that press releases tell and are essential in guiding members of the public toward sensemaking strategies that allow the community to both accept a crisis and respond well to a crisis-managing organization. Scholars have studied the textual dimensions of press releases as a genre, outlining their common format as well as the importance of their context to understanding their structure (Catenaccio, 2008; Lassen, 2006). Despite the importance of contextual considerations with press releases, scholars and crisis communicators have overlooked the importance of place-based signals within effective press releases.

To answer RQ1, we argue that in the press releases we analyzed, invocations of place and characterizations of place, or setting
details, were used in a similar fashion as with social movements, to build legitimacy and community (Endres & Senda-Cook, 2011). Although press releases are often used as vehicles to get organizational and/or emergency information to the media and, ultimately, the public (Lassen, 2006), we find that in the CCMC and MHS press releases place-based information worked on several layers, advancing information but also building legitimacy for the organizations and providing a foundational frame to guide readers’ sensemaking process. First, invocations of place ground the reader, reinforcing a sense that the crisis communicators were speaking directly to and from a community that they know well. Secondly, characterizations of place offer a space for narrative exposition, in which the crisis communicators could explain to readers all the pre-crisis steps taken in order to maintain stability and keep individuals safe. Even without concrete evidence of any kind, the use of setting fleshes out expository descriptions, making past actions seem justifiable and concrete. Third, place-based appeals within the rhetoric of the press releases we analyzed make the steps offered to manage the COVID-19 crisis feel attainable, as they are grounded in a specific location well-known to the hospitals’ publics and placed in the accessible context of previous organizational actions.

**Invocations of Place**

RQ1a asked how invocations of place were used within the rhetoric of CCMC and MHS press releases. Invocations of place call directly to the culture and values of the community in its specific geographic location. The CCMC relied heavily on invocations of place, emphasizing the small-town community atmosphere of the CCMC public, situating COVID-19 in the context of local values such as neighbors helping out neighbors. The CCMC press releases contained several calls to action, specific lists and information to help “flatten the curve” in the spread of COVID-19 (CCMC, 2020b, para. 2). “Recipients are asked to follow volunteer directions during the event, wear a face covering or mask, remain in their car, leave windows up and have trunks open,” one press release states in the context of a regularly held community
food pantry (CCMC, 2020d, para. 3). Another asks all residents of Comanche County to follow seven steps to contain the virus (CCMC, 2020b), and yet another outlines, “Calling ahead and notifying medical staff of recent travel and symptoms will help CCMC better accommodate patient care needs” (CCMC, 2020c, para. 1). The CCMC press releases outline specific actions that the community members themselves can take to help each other survive the crisis.

Such specific calls to action in crisis communication are not especially noteworthy, as emergency situations require the organizations involved to attempt to diffuse potentially lifesaving instructing information. However, the way such calls to action are contextualized within the rhetoric of the CCMC press releases sheds light on how CCMC attempted to guide a preventative sensemaking process with their narratives, using invocations of place. All calls to action, detailing specific action members of the public can take to slow the spread of the virus, are situated within stories about regular community initiatives that take place even in non-crisis periods. The food pantry in which social distancing protocols are outlined, the press releases remind readers, are “normally held on the CCMC campus,” regular instances of volunteers from the community coming together to help the less fortunate (CCMC, 2020d, para. 1). Even the official statement included by Dr. L. G. Troxell, CCMC Chief Executive Officer, applauds healthcare staff for “answering the call to serve” the community during the crisis, realizing “CCMC’s vision statement” (CCMC, 2020e, para. 5). Any calls to action to help guide behavior and perception during the COVID-19 crisis do not spring from nowhere—rather, they are grounded in the specific community CCMC serves, reflecting and reinforcing small-town neighborly values.

**Characterizations of Place**

RQ1b focused on how characterizations of place were used in CCMC and MHS press releases. Although still using place-specific details within their press releases, MHS differs in their rhetoric, focusing less on *invocations* of place and more on *characterizations* of place. CCMC calls on the community to come together to fight
the COVID-19 crisis, emphasizing past community initiatives and noting the steps that residents can take to slow the spread of the virus. On the other hand, MHS instead emphasizes their own actions as an organization, using setting-specific details to show how they have cared for their community in the past, using place-based details to advance reputation management within their crisis rhetoric. For instance, one press release mentions education resources offered by the hospital system to one community (MHS, 2020a) while others detail the organization’s work in South Dallas (MHS, 2020c; MHS 2020d). MHS provides “the only two hospitals and trauma centers south of downtown Dallas,” according to one of the press releases (MHS, 2020d, para. 5). Such an emphasis builds rhetorical credibility in their press releases, establishing the organizational legitimacy so important for an organization hoping to sustain themselves through a crisis (Clementson, 2020; Gephart, 2007; Golant & Sillince, 2007). The press releases characterize the MHS community through focusing on the agency and actions of the organization, MHS providing the scaffolding to the everyday functions of the geographic places the hospital system serves.

Despite differences in the context and use of place-based descriptions and appeals, both CCMC and MHS used setting-specific details to flesh out exposition in the stories they told about themselves as organizations and the COVID-19 crisis. Such expository place-based descriptions could be interpreted as adjusting information, setting readers’ minds at ease by assuring them that the hospitals care for their communities. One press release boasts, “CCMC already had a best practice cleaning and maintenance system in place,” which happened to also help contain COVID-19 (CCMC, 2020e, para. 4). An MHS press release describes an “age-old method” of treatment that “is new again” when describing their current use of the antiviral drug Remdesivir (MHS, 2020b, para. 11). An MHS press release also contextualizes current collaboration between North Texas hospitals to expand COVID-19 testing by noting past initiatives and collaborations to aid southern Dallas county (MHS, 2020c). Within the press releases during the early months of the COVID-19 pandemic, despite the unprecedented nature of the crisis, no actions taken were described as unprecedented—rather, organizational action was backed up with
descriptions of past action specific to the organizations’ communities. Such exposition reminds readers of past strategies and initiatives specific to their communities, thus cultivating the social meaning-making context through which individuals can interpret future events, such as the then-developing pandemic. In other words, use of expository setting details provides the foundation for a preventative sensemaking process, in which the organizations offered a narrative frame on which the public could build their interpretations, perceptions, and, ultimately, actions during developing future events.

**Place-Specific Impact**

The rhetorical impact of characterizations of place in the press releases of CCMC and MHS during the early months of the COVID-19 crisis in the United States varies according to each hospitals’ situation and community. The different implications of the different narrative frames and contextualization of setting details is explained further in the Discussion section. However, rhetorically, for both CCMC and the MHS, place-based details bring credibility to the rhetoric of the crisis management press releases. Given the central role of discourse to building organizational legitimacy, and, in turn, the central role of discourse-built organizational legitimacy to institutional stability (Cornelissen et al., 2015), effective use of expository setting details to manage developing or forthcoming crises is essential to crisis communicators effectively navigating a crisis situation, especially in the long term.

Assumptions about the hospitals’ communities appear in the rhetoric of the press releases, with large implications about who can and should access the crisis management information. One CCMC release, touching on ways to access health information through technology, clarifies that the “applications . . . downloaded on a patient’s computer or mobile device” can also be called “apps,” signaling that not every reader of the release will be thoroughly familiar with digital technology (CCMC, 2020e, para. 2). Such a clarification displays effective knowledge of CCMC’s rural community, especially given the digital divide and limited access to broadband internet in many rural areas across the United States.
The Role of Place-Based Sensemaking in COVID-19 Communication

In contrast, the MHS assumes access to digital technology and the internet, stating at the end of their May 7 release: “Those who have recovered from COVID-19 are encouraged to consider donating plasma. Visit Carter Blood Care to request eligibility” (MHS, 2020b, para. 16). Although both CCMC and MHS press releases point to specifics of setting to contextualize the developing crisis, those specifics are placed in very different narrative frames with very different assumptions about which members of the public are consuming the crisis-related information.

Discussion

The MHS faces the challenge of serving a very diverse community with varying cultural norms, beliefs about healthcare, and ability to access digital resources. There are notable differences between the community CCMC serves and the community MHS serves, including differences in education level and racial demographics. The Dallas/Fort Worth area has a higher percentage of high school graduates and individuals with at least a bachelor’s degree than Comanche and Erath counties served by CCMC (U.S. Census Bureau, 2018a & 2018b). Such a holistic higher education level might explain the tone of the MHS’s press releases, which speak in clinical language to an assumed audience that is internet-connected and able to seek out resources on their own. The holistic higher education level might also explain why most community initiatives, when they are specified in the releases, focus on education projects.

However, despite the higher education level of the DFW area as compared to Comanche and Erath counties, in which 95.6% of persons identify racially as White alone, around 20% of DFW individuals identify as Black, around 40% as Hispanic or Latino, and only around 63% as White alone (U.S. Census Bureau, 2018a & 2018b). Given that Pew Research Center identified Black and Hispanic individuals as more likely to distrust the medical profession and see medical misconduct as an important problem (Funk et al., 2019), that the MHS speaks within their press releases in such
a clinical tone with non-transparency in deliberation and action, brings attention to the identity of their assumed audience, and weight to the possible implications that such rhetoric—especially in the context of a crisis—further alienates individuals in their community. Such implications are further tragic when faced with the increasing rates at which COVID-19 deaths and cases are disproportionately impacting Black, Hispanic, and Latino individuals (Godoy & Wood, 2020). Left out of the narratives included in the MHS press releases directly prior to and during the initial stages of the COVID-19 outbreak, communities of vulnerable population groups are left unable to get the resources they direly need.

**Implications**

The findings of this research can be used by researchers, crisis communication practitioners, and hospital administrators to inform the use of press releases for shaping ideas about place through narrative sensemaking. Practitioners and hospital administrators working in rural and urban hospitals can use this research to bolster their efforts to not only reach out to the communities they serve with timely, helpful information, but to help the communities and themselves create and shape a narrative about how the organization and community will manage the crisis together. Press releases and external communication that intentionally frame information to best appeal to the communities to which they serve might help hospitals maintain strong relationships with their communities as COVID-19 continues to impact daily life. More research is needed to better understand the impact of crisis communication messaging on the community’s perceptions of the organization within the context of COVID-19 and other epidemic and endemic viruses and diseases (Kim et al., 2009; Malecki et al., 2020).

Our study has implications for previous work on narrative sensemaking. Specifically, we offer an argument for preventative sensemaking—while much sensemaking research examines how individuals use narratives to sort out past events, our study examines how organizations can offer sensemaking narratives to guide perceptions of developing crises. Given the long-term, complex nature of the COVID-19 crisis, such preventative sensemaking
could have huge implications for crisis communicators attempting to guide the perceptions of the public during crises without easily or quickly attainable conclusions or solutions. Our study also begins to shed light on not only the exotextual process of sensemaking, but the textual dimension—focusing not just on how people perceive crises, but the textual and rhetorical elements of content that can shape individuals’ perceptions.

Assumptions presented by narrative frames, especially when those narrative frames are presented in order to help the community make sense of a crisis, can lend rhetorical credibility to crisis communication initiatives. However, such use of setting-specific stories can also trigger place-based tensions and inequalities, limiting who gets access to sensemaking narratives as well as crucial health-related information. Scholars of crisis response narratives such as Heath (2003) and Clementson (2020) have noted the centrality of stories to shaping organizational legitimacy and trust following a crisis. Crisis communicators must also consider how the use of setting-specific narratives helps flesh out and make more effective crisis communication while considering how such place-based details can also oversimplify a larger crisis into a tale reinforcing community tensions (Peterson, 2010). Part of such consideration involves the continued pre-crisis development of community relationships that can be used as place-based exposition should a crisis occur. By bringing close analysis of literary elements such as exposition and setting to the study of sensemaking narratives, scholars and practitioners can better begin to understand the nuances in language that contribute to preventative sensemaking narratives about crises.

Conclusion

Organizations are constantly building the beginnings of sense-making narratives that crisis communicators could later offer to the public. Key to such narratives is a deep knowledge of the place where the organizations are situated and where the members of their communities live. In this study, we found that place-based setting details are rhetorically powerful in press releases meant to
help manage a developing long-term crisis. The press releases of CCMC and the MHS during the first few months of the COVID-19 crisis in the United States display narrative strategies that the organizations offered their communities to make sense of the imminent crisis. Expository setting details in these sensemaking stories allowed for the communities to brace themselves for the crisis and grounded crisis management actions in the circumstances attainable and accessible for members of each hospitals’ public. However, such narratives also place limiting place-based frames on the developing crisis, constraining how the crisis was ultimately managed by each community.

Despite the limitations of an exploratory rhetorical analysis such as this one, including a small sample size and a focus on only digital press releases, our study sheds light on a preventative sensemaking process, which is especially important for crisis communicators to foster relationships with the community as a long-term crisis is just beginning to develop, or before the crisis develops at all. A crucial element of preventative sensemaking involves the use of setting details to make essential information attainable and accessible to the particular public the organization serves. Our analysis suggests that such details do not need to be elaborate descriptions, but rather specific expository instances of the organization helping the community in the past or understanding the past nature of the community. Although these setting details are important rhetorically to build credibility for the organization, crisis communicators must carefully consider the details they choose, as narrative frames can guide and constrain the public’s sensemaking process in ways that fall prey to already-existent community tensions and inequalities. Further research on setting details in crisis communications of other cases, how place-based details are used differently within instructing and adjusting information and reputation management, as well as longitudinal studies that consider real-world effects of such rhetoric, could further illuminate this topic.

The press releases used in this analysis did not extend past July 2020 as CCMC and MHS were in the crisis phase of managing COVID-19. As COVID-19 continues to spread through communities, more research is needed to understand the prolonged crisis
response of hospital officials and practitioners. In addition, future research could longitudinally analyze the crisis response of hospitals as they eventually shift to a post-crisis response.

**ORCID**

Cassandra Hayes  
https://orcid.org/0000-0003-3028-7551  
Rachel E. Riggs  
https://orcid.org/0000-0003-3771-5010  
Kelly Burns  
https://orcid.org/0000-0003-3145-5254

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Managing COVID-19 Pandemic Crisis: The Case of Greece

Neofytos Aspriadis

1. Visiting Research Fellow, Department of Political Studies and International Relations, University of Peloponnese, Corinth, Greece

ABSTRACT

This qualitative study analyzes the Greek government’s crisis management practice and public communication efforts during two waves of the COVID-19 pandemic in 2020. Integrating both crisis management theories and the World Health Organization’s pandemic control plans, discourse analysis and case study approaches were taken to analyze how Greek’s key government and public health authorities communicated with the public using different frames and crisis response strategies. Evaluations were conducted to assess the Greek government’s crisis communication procedures and the effectiveness of different rhetorical strategies used as evidenced in public briefings and public speeches.

KEYWORDS: Pandemic Management, Greece, Covid-19 communication management, crisis communication, image restoration

It has already been a year since March 2020 when the World Health Organization (WHO) announced the spread of a new strain of coronavirus from Wuhan City, Hubei, in 114 countries worldwide, declaring the COVID-19 epidemic a pandemic (WHO, 2020). The rapid escalation and global spread of COVID-19 have prompted governments to implement policies and measures to manage virus transmission and give health systems time to prepare for and mitigate the impact of the pandemic (Haberstaat et al., 2020; Hale et al., 2020).
This paper examines the crisis management strategies used by the Greek government in response to the spread of the COVID-19 pandemic in Greece. The article focuses on the non-pharmaceutical interventions (NPIs) of pandemic management and does not take into consideration the medical aspects like vaccine development or medical treatment. In addition, it examines the crisis communication procedures and the rhetorical strategies used by the Greek authorities.

The theoretical framework of the study draws on crisis management theory and practice-based models of the WHO and evaluates the management of the pandemic during the two major waves in Greece (i.e., March and November 2020). Through the comparison of both waves, the study aims to examine the strategies and evaluate the models used for both phases by the Greek Government. The findings add to the growing literature on effective crisis response strategies for COVID-19 pandemic management (Christensen & Lægreid, 2020; Habersaat et al., 2020; Hale et al., 2020; Manokara et al., 2020) and show the close relation of crisis management and non-pharmaceutical interventions (NPIs) of pandemic management.

The first section contains the theoretical part including crisis management theory, pandemic management theory, and practice-based models of the WHO and formulates a combination of both theoretical and practical models. The final section examines the case study of Greece and its overall pandemic management throughout the two major COVID-19 waves in Europe.

**Literature Review and Theoretical Frameworks**

**Crisis Management**

Crises come in many shapes and forms. Conflicts, human-made accidents, and natural disasters chronically shatter the peace and order of societies (Boin et al., 2005). Typically, they are defined as untimely, but predictable events (Heath & Millar, 2004, p. 33) that include the element of surprise (Richardson, 1994), and generally marks a phase of disorder in the seemingly normal development of a system (Boin et al., 2005). Besides, they create high levels of
uncertainty and threat or perceived threat to an organization’s high-priority goals (Seeger et al., 1998).

Crisis management is the approach an organization takes to handle emerging troubles and rapidly emerging issues of contention, risk, disasters, accidents, emergencies, and characteristically uncontrollable problems (Bowen & Lovari, 2020). There are several models of effective crisis management and communication (e.g., Coombs, 2004; Coombs & Holladay, 2002, 2008; Hearit, 2006; Heath, 1998; Pearson & Mittroff, 1993). Some relate the crisis with the attribution of responsibility that emerges from the crisis itself or stakeholders (Coombs, 2004; Coombs & Holladay, 2002, 2008), whereas others focus more on mitigating or minimizing the challenges and damages caused by the crisis (Benoit, 1995; Dezenhall, 2011; Gilbert & Lauren, 1980; Hearit, 2006; Heath, 1998).

A crisis unfolds through three main stages: the pre-crisis phase, the crisis phase, and the post-crisis phase (Bowen & Lovari, 2020). Those three main phases form the crisis cycle. The pre-crisis phase involves the prevention of, and preparation for, crises in order to minimize damage to the organization (Coombs & Laufer, 2018). “It allows time to research and plan for broad types of crises so that response can be expedited” (Bowen & Lovari, 2020, p. 3). Therefore, issues management is a process that helps organizations to search and early detect problems and proceed to preemptive resolutions (Bowen & Lovari, 2020; Heath, 2002, 2018).

Although issues management in the pre-crisis phase cannot always prevent a crisis from happening, the main objective is to minimize or mitigate the risks or negative effects of a potential crisis (Coombs & Holladay, 2010). Subsequently, risk assessment and management contribute to the timely identification of the potential danger an event can bring, so that it can be managed on time (Comfort, 2007; Rickard et al., 2013; Sellnow et al., 2017).

The crisis phase represents the response to the crisis, including the organization’s response and the response of its stakeholders (Coombs & Laufer, 2018). There are several crisis management models like Heath’s (1998) 4R model where the four “Rs” represent a stage: Reduction, Readiness, Response, and Recovery. Diers-Lawson’s (2017, 2020) Stakeholder Relationship Model,
which emphasizes the role of stakeholders during a crisis and the management according to their attitudes. Coombs’s (1998, 2007) Situational Crisis Communication Theory and Benoit’s (1995) Image Restoration Theory focus mainly on the reputational and communicational aspect of a crisis but can also be implemented in general crisis management procedures, especially in situations that evolve attribution of blame. These models cover both communicational and operational crisis management.

Effective crisis management can be summarized in five basic strategic steps: (a) the timely identification of the type of crisis, where and when it is possible (Coombs, 2014; Diers-Lawson, 2017, 2020); (b) the swift reduction of the main crisis effects (Heath, 1998); (c) damage control (Dezenhall, 2011) in case the situation becomes or is already uncontrollable; (d) narrative control through strategic communications (An et al., 2010; Benoit, 1995; Coombs, 2007; Hearit, 2006); and (e) building resilience against crisis regeneration (Heath, 1998).

**Pandemic Crisis Management Strategies and WHO’s Practice-Based Model**

This section focuses on pandemic management strategies from literature and practice-based models and combines them to shed further light on the general crisis management theory and practice.

According to Pan and Meng, “Health crises appear to be increasingly preoccupied with invisible, unpredictable, and uncontrollable risks in a global society” (2016, p. 95). Globally, human populations are more urbanized, which may allow viruses to be transmitted within populations more easily (Reissmann et al., 2006). Pandemics and epidemics are proven to be a threat to countries because they may produce megacrises like the COVID-19 pandemic. A pandemic example apart from COVID-19 is the H1N1 influenza pandemic, a global outbreak of a new influenza A virus, completely different from the previous ones (Centers for Disease Control and Prevention [CDC], 2016).

Pandemics occur when a new virus emerges that can easily infect humans and spread from person to person in an effective and permanent way; very few are going to be immune and there is
no vaccine available (CDC, 2016; WHO, 2018a). Until a vaccine or effective treatment becomes available, public behavior and adherence to national and subnational response strategies—notably social, physical, and social distancing measures—will continue to be key measures for controlling the virus (Habersaat et al., 2020).

Especially during a pandemic period given the limited response time, dynamic infectious conditions, and intense public pressure, lead health agents are supposed to be capable of sensemaking, evaluating the nature and scope of the pandemic, and searching for an appropriate response (Lai, 2012). During the SARS outbreak contact tracing as well as other strategies like the involvement of the public in maintaining good health habits reinforced a sense of control in an otherwise difficult and confusing time (Tiong, 2004). The management and dissemination of public information during any crisis are critical (Glantz, 2014).

Pandemic crisis management mainly depends on the epidemiological data provided by scientists and the main operational response measures are directed by the capacity of a country’s healthcare units. Limiting the basic reproductive number, or the number of secondary infections from an ill person, is a tremendous opportunity for local communities (Glantz, 2014, p. 563). Epidemiological models for monitoring the evolution of the pandemic (e.g., Froese, 2020; Luo, 2020) determine the operational crisis management measures a government needs to implement.

In the pandemic crisis management literature as well as in the practice-based models of the WHO, the non-pharmaceutical interventions (NPIs) include restrictions and reductions of social gatherings and crowds, restrictions of movement, the closing of department stores, bars, commentary, university institutions, as well as public awareness campaigns on hand hygiene, use of protective equipment and observance distances in social gatherings (Bell et al., 2009; Cadogan & Hughes, 2021; Peng, 2008; Reynolds & Quinn Crouse, 2008). The CDC and WHO’s plans have primarily focused on detection and disease control through (1) surveillance and early detection, (2) community containment strategies (movement restrictions, facility closure, and healthcare service continuity) that would decrease disease transmission, and
(3) mass prophylaxis strategies using vaccines and antiviral medication, when available (Reissman et al., 2006).

More severe measures include travel restrictions and the closure of the borders (Cadogan & Hughes, 2021; Manokara et al., 2020). Containment measures may prevent transmission, or at least suppress or slow the spread of a pandemic, allowing time for targeted use of medical interventions (Reissman et al., 2006). During the COVID-19 outbreak in 2020 most of those NPI measures were taken by most countries to contain and delay the transmission of the virus (Cadogan & Hughes, 2021). NPIs serve to delay the spread of infection, buy time, decrease the total number of infections, and reduce the spread of infection by each individual (Glantz, 2014, p. 563).

The WHO has developed a series of plans and proposals for pandemic management (WHO, 2018a, 2018b, 2019a, 2019b). The WHO’s model (2010a, 2018a) for influenza pandemic management is divided into six main phases which follow the model of phases of development of a pandemic influenza crisis (WHO, 2010a). According to this model (WHO, 2010a), the first phase concerns the quiet period before the outbreak of a disease. The second and third phase involves detecting a virus that has been transmitted from animals to humans and poses a potential pandemic threat without, however, having sufficient human-to-human transmission capable of causing an outbreak at the community level. The fourth phase is characterized by the confirmation of the ability of the disease to spread from person to person who can cause spread in the community. The ability of the disease to spread in the community is a significant risk increase for developing a pandemic, but it does not mean that it is certain or inevitable. In the fifth phase, the human spread affects at least two countries in one geographical area. Finally, a pandemic begins by an outbreak at the community level in at least one country other than the geographical area of the virus’s origin. The last two phases concern the phase of de-escalation of a pandemic crisis (WHO, 2010b).

**Combining Theory and Practice for Pandemic Management**

The general pandemic model of WHO is being combined with the crisis management theory. The WHO model shows the stages for
the development of a pandemic. On the other hand, crisis management theory includes models that elaborate on management processes in each crisis stage. The combination of both models may provide insights that help identify the effective and timely application of pandemic management strategies based on the pandemic crisis cycles and crisis management procedures. For example, issue management is a delayed response when a crisis has entered its main phase. Respectively, precautionary measures like obligatory masks or contact tracing as a main measure during the heat of the crisis would be an ineffective approach.

The first three phases of the WHO pandemic model are being identified with the corresponding pre-crisis phase of crisis management, which contains issues management and search for potential risks or threats. A pandemic environmental monitoring and regular risk assessments are of high importance to regulate the transmission rate and fortify the health system of a country. The main crisis phase relates to phases 4–6 of the WHO pandemic model, where the identification of human transmission has been confirmed, while there is a significant spread in the community. The sixth phase is a particular turning point in a pandemic crisis, in which a disease is widely spread and somewhat uncontrollable. Crisis management at this level requires the application of strict NPIs as a damage control strategy. Resilience building can be identified with the possibility of mass vaccination or fortification of the health system.

Grounded in pandemic management theory and practice, this study explores the following research questions:

**RQ1:** What were the main pandemic containment measures used in managing the first and the second waves of the COVID-19 pandemic in Greece?

**RQ2:** What were the differences between the first and the second waves of pandemic management in Greece in terms of crisis management and crisis communication?

**RQ3:** What were the main (a) rhetorical strategies and (b) dominant frames used by Greek authorities for crisis communication management during the two pandemic waves?
Methodology

The methodology used is qualitative content analysis with elements from rhetorical and discourse analyses. Qualitative content analysis is appropriate for a relatively small amount of textual matter (Krippendorff, 2004; Van Evera, 1997). Besides, qualitative content analysis allows the liberty of viewing the case from the inside out and seeing it from the perspective of those involved (Gillham, 2000). The qualitative content analysis was mainly used to identify the NPI strategies used for the containment of COVID-19, drawn from the official Greek governmental internet pages (i.e., gov.gr, eody.gr, and covid19.gov.gr).

The rhetorical analysis focuses on how messages are delivered and with what effects (Krippendorff, 2004). For this reason, it was used in the examination of the crisis communication discourse of three main crisis management authorities. However, the analysis did not focus on argumentation building but on rhetorical strategies through the examination under existing rhetorical typologies and tools. Therefore, discourse analysis, especially political discourse analysis (Filardo-Llamas & Boyd, 2018), was also applied. In particular, the pre-existing typologies and rhetorical tools used for the analysis included framing theory and the image restoration theory by Benoit (1995) that consists of five main strategies to avoid blame or restore one’s image (i.e., denial, evading responsibility, reducing offensiveness, corrective action, and mortification).

The crisis communication analysis was conducted on (1) speeches from daily press briefings of two main public figures at the front line of the Greek government’s pandemic communication: President of the Experts Committee, Professor Sotiris Tsiodras; Undersecretary of Civil Protection and Crisis Management Nikos Chardaliasand and (2) the regular official addresses from the Prime Minister, Kyriakos Mitsotakis, gathered during the first and the second waves of COVID-19 pandemic management in Greece. The time frame of the research was from March 3 until May 4, 2020 (Wave 1), and from the end of September until the end of October 2020 (Wave 2). A total of 60 transcripts of the
press briefings containing the speeches of Professor Tsiodras and Undersecretary Chardalas with the Q&A section as well as the public addresses of the Prime Minister Mitsotakis were analyzed. A total of 388 rhetorical strategies were coded and analyzed.

Case Study: Managing COVID-19 Pandemic Crisis in Greece

Managing the First Wave of COVID-19 Pandemic in Greece

Pre-Crisis Phase

The first wave of COVID-19 arrived in Greece almost 2 months after the outbreaks reported in China in January 2020. From January 22, Greece entered the pre-crisis phase where issues and risk management measures were taken. Until mid-February 2020 the Greek Ministry of Health monitored the situation in China. The risk of imminent contamination in Greece was very low at that time; therefore, the measures taken focused mostly on preparations in case an infected person was identified.

During this preparatory phase, an expert committee of epidemiologists was established to monitor the situation and to advise the government. At the end of February, given the outbreak situation in Italy, the danger for Greece became very imminent. The National Organization of Public Health (EODY) applied contact tracing for the cases coming from Italy when a person developed symptoms. The organization also issued an information package advising regular temperature testing to those who traveled recently and developed a list of countries that were at risk.

Since the imported cases from Italy were unavoidable, the Greek Government suspended all carnival festivities that were programmed until March 7. Furthermore, the Ministry of Public Health published a series of information regarding personal protection against coronavirus, the 13 reference hospitals throughout the country, and the new telephone line of EODY for the coronavirus with a 24/7 operation (Onmed.gr, 2020). The suspension of carnival events together with the informative measures prepared the citizens psychologically and informatively for the impending crisis and saved time for an uncontrollable outbreak.
Main Crisis Phase

The first confirmed case of COVID-19 in Greece was reported on February 26; however, the main crisis phase began after the return of a tourist group from Israel (Iefimerida.gr, 2020). From that point on, the situation evolved rapidly. On March 16, the Secretary-General of General Secretariat for Civil Protection Nikos Chardalias was promoted to the Undersecretary of Civil Protection and Crisis Management and became head of the operational aspect of the COVID-19 crisis. The newly appointed Undersecretary joined the press briefings together with the President of the Experts Committee, Professor Sotiris Tsiodras, steadily at 6:00 every afternoon to inform the public on the evolution of the outbreak. The professor focused on the medical developments concerning the pandemic and the Undersecretary on the governmental decisions and the operational crisis management measures.

The main goal of the government at that time was “to save time to further strengthen the national health system, and to protect the most vulnerable” (Petsas, 2020). The initial measures taken for that purpose included the closure of all educational institutions, the suspension of any kind of conferences and events that gather more than 1,000 people, the prohibition of sport events gatherings, and strong advice on hygiene measures at any gathering of more than 50 people.

Two days later, on March 13, the implementation of the measure “We Stay Home” began. All citizens are invited to stay at home as long as possible and go out only when necessary. At the same time, special permits were given to working parents, so that they could take care of their children at home and avoid contact with their grandparents, who belong to vulnerable groups.

On March 22, in a televised public address, the Prime Minister Mitsotakis announced his decision to proceed with “a prohibition on all unnecessary movement of citizens throughout the territory” (Mitsotakis, 2020). Citizens needed to have a special permit by SMS or signed by themselves which included only six reasons for leaving their house. In essence, this permission was not given by an official government body nor was its truthfulness checked by the authorities but was more an enhancement of the “individual
responsibility.” An absence of the document or the SMS would result in a fine.

The severe lockdown measures were maintained for 6 weeks and included school closure; distance working; and closure of all marketplaces, bars, cafés, and the international borders. In the meantime, a lot of public services went digital to facilitate transactions with the public sector.

The lockdown measures were stricken toward the Easter holidays, where people were expected to move to nearby villages or holiday homes. The measures included a strong justification for the reason for movement and prohibition of domestic travels. Besides, police controls rose during the holidays. The main reason was to avoid further spreading of the virus to the provinces since until that time the main spread of the disease was restricted in the two big cities of Greece, Athens and Thessaloniki.

**Crisis Communication**

In parallel with the operational crisis management measures undertaken during the first coronavirus outbreak in Greece, a major communication campaign was established to inform the public about the threat and danger of COVID-19. The communication was centrally planned and executed. As the crisis unfolded, the daily Press Briefings held by Professor Tsiodras and Undersecretary Chardalias became a routine in the everyday life of the lockdown citizens.

These regular press briefings were important communication and managerial tools which showed the Greek citizens the constant presence of the state and potentially acted as a stress reliever for the situation. Besides, the profile of Professor Tsiodras became a symbol of leadership in the crisis management process and quickly gained the trust of the citizens. Nevertheless, for serious decisions and changes in strategy, Prime Minister Mitsotakis directly addressed the public about the situation and the decisions made and actions taken by the government.

Furthermore, the communication slogan of “We Stay at Home/ Menoume Spiti” with the logo¹ (showing a nice, lovely home), was liked by the public and immediately began to circulate by all TV

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¹ “We Stay Home” Logo: [https://menoumespiti.gr/](https://menoumespiti.gr/)
channels. In effect, the General Secretariat of Civil Protection took effort in developing strategic messaging and advertisements to inform the public of the new everyday life and precautionary measures that the people must take. In the advertisements beloved TV actors or doctors participated to give the right tone to the message.²

The strategic communication messaging was very coherent among the three main frontline figures: Prime Minister Mitsotakis, the President of the Expert Committee Professor Tsiodras, and Undersecretary of Civil Protection Chardalias. Prime Minister Mitsotakis represented the political side of the crisis management procedure giving a tone of unity; Undersecretary Chardalias represented the decision-making body, and the executive aspect of crisis management; and Professor Tsiodras represented the scientific and medical aspects of management. Besides, the latter tried to promote a more human profile during the press briefings, most likely due to his character, which helped convince the public to listen to him and maximize the approval rating for the crisis management procedure institutionalized by government authorities.

The main frames that were mobilized rhetorically during the whole time of the main crisis were the war frame, and the individual social responsibility frame. The War Frame was introduced by the Prime Minister in his first address to the public on March 11.

“We are at War! With an enemy that is invisible but not invincible. Because if we succeed to limit the transmission of the virus, we can give time to our Health System to deal with the emergency calls.”
(Mitsotakis, March 11, 2020)

Words like “frontline,” “enemy,” “weapons against the virus,” “battle,” “sacrifices,” “target,” and metaphors as “forts of life” constructed the semantic ecology of the war frame. The political managers (Prime Minister Mitsotakis and Undersecretary Chardalias) used both the war frame; however, not in the same capacity. Prime Minister Mitsotakis used it as his main strategic frame, whereas Undersecretary Chardalias used it as a support frame. Professor Tsiodras, on the other hand, did not use this frame almost at all.

² Civil Protection Information Kit: https://www.civilprotection.gr/en/media-gallery
The *individual social responsibility frame* was being used by all three leading public figures/leading authorities during their public briefings on the pandemic. Contrary to the war frame, this individual frame seems to be the main frame used by Professor Tsiodras and Undersecretary Chardalias. This frame included mainly a call to the citizens to protect their hygiene and keep social distancing to limit the spread of the disease. Indirectly through this frame, Prime Minister Mitsotakis pointed out the citizens as the primary safeguards of national health.

> It all depends on us all and our behavior whether the government needs to take even more drastic control measures. (Mitsotakis, March 19, 2020)

Consequently, this frame was often used to blame directly or indirectly individual citizens and the general public for not following the public health measures to contain the spread of the disease.

> Also, at this point, I want to emphasize that any discussion or various excuses for moving during those days (means the eastern vacations), is a completely irresponsible and anti-social attitude and I want to explain why . . . (Chardalias, April 7, 2020)

Nevertheless, the individual responsibility frame was used by Professor Tsiodras more as an incentive to motivate the public and offer an explanation for the reasons why social distancing is vital for the containment of the virus spread and why social responsibility is a sign of freedom.

> Our collective thinking, so as not to burden the neighbor with the spread of the virus, not to overload the health structures, is and remains in the coming weeks our main goal. The virus ( . . . ) reminds us that free societies thrive on rules of social responsibility. (Tsiodras, April 6, 2020)

This frame was used almost under the same conditions by all three leading authority figures. The rhetorical justification of the frame was threefold: (a) Ideology: Democracy and Freedom as vital parts of the Western society “demand” the participation of the citizens and thus social responsibility; (b) Hygiene—practical
use: social responsibility as a pandemic containment measure; (c) Scapegoat—blame shifting accusing those who do not follow the precautionary measures as socially irresponsible and dangerous for society.

The only way to protect our loved ones, our way of life, our neighborhoods, our homeland, is the path of individual responsibility. And that means one thing: we follow the instructions. We stay at home. We faithfully apply the rules of hygiene. (Chardalias, March 16, 2020)

Another strategy used frequently by the three main crisis actors was the strategy of bolstering. All three public figures used this strategy to praise both the work of the government and the quick reaction of measures taken

The government is facing an unprecedented crisis. And it reacted quickly. (Mitsotakis, March 13, 2020)

as well as to praise the people for practicing “social responsibility” or for the healthcare workers for doing a good job.

And I want to thank them (the healthcare workers), once again, on behalf of all the citizens. Our biggest gain, however, from this unprecedented crisis has a name. And it’s called Trust. Trust in the State, the Government the fellow citizen! Because, in 50 days, myths of decades were dispelled. And conclusions were drawn, which will accompany us for a long time. It has been shown, for example, that the state must be evaluated primarily based on its effectiveness. And that, when the state does not become a slave of power, then it becomes a real “State.” (Mitsotakis, March 13, 2020)

The strategy of bolstering was used several times by all three main public health authority figures in almost all their speeches and press briefings. The main aim, as can be concluded, was to bolster their image or the image of the government to show strength
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and liability to the institutional pandemic management. There are several explanations for its frequent use. Comparing bolstering strategy with the individual social responsibility frame, it provides strategic advantage by emphasizing on the one hand, the government has done anything in its power to manage the crisis; on the other, it is the people's responsibility to follow the measures and remain healthy. This way, the government tries to construct, preemptively, a possible scapegoat to shift the blame for a possible failure in the future. Another explanation for the frequent use of bolstering strategy may lie with the past failures of governments’ attempts of handing public crises, which indicated the need of restoring the image of the government in order to gain the trust of the people.

The first pandemic wave in Greece practically ended with the easing of lockdown measures after May 4. During the Summer (May–October) of 2020, the cases were kept low, and it was possible to fully reopen the economy. This interim crisis phase consisted of the post-crisis phase of the first wave and the early pre-crisis phase of the second wave.

Managing the Second Wave of COVID-19 Pandemic in Greece

Pre-Crisis Phase

The second wave began in October when suddenly the cases began to increase rapidly. Nevertheless, this time the problem occurred only when the intensive care units began to increase. The difference with the first wave can be summarized in that living with COVID-19 became normal and the healthcare system was strengthened to deal with more cases. This led to a more relaxed pre-crisis phase compared to the first wave.

October was the pre-crisis month. Although precautionary measures should have been taken, the first new measures to stop the spread during the second wave came only in mid-October when the government announced the obligatory use of masks everywhere. At that time, the daily confirmed cases were around 300–400 a day according to EODY. However, as the numbers increased the circumstances also changed. The situation got out of hand particularly in northern Greece. At the end of October,
the reported cases reached almost 3,000 a day, putting enormous pressure on the health system, especially in northern Greece.

**Main Crisis Phase**
The main crisis stage came from Northern Greece when Thessaloniki (the second-largest city in Greece) and Serres, a nearby city, witnessed a major outbreak. On November 3 the country was divided into two zones: to the regions with imminent danger and with excessive danger. For the latter, the lockdown measures imposed included closing of theaters, businesses, restaurants, borders, and free movement to and from without any excuse or a justified reason. For the regions in the imminent danger zone, the restaurants and theaters closed but other retail businesses and shops remained open.

Two days later and as the situation escalated, a general lockdown for the whole country was decided. Beginning on November 7 and for almost 3 weeks (initially planned but was extended later) everything closed except for schools, which closed eventually 1 week later, and free movement was prohibited without an SMS or special license. Until that time the main message of the government was the denial of a potential lockdown.

The severe measures were taken too late and could not stop the spread in time. In Northern Greece, hospitals were on the edge and patient transportation to other cities including Athens was deemed necessary. In addition, the pre-crisis phase was not exploited in taking mild measures in time to avoid deteriorating the situation.

**Crisis Communication**
Communication during the second wave was slightly different than the first. The press briefings returned to a regular basis in October. However, Professor Tsiodras did not return, and other members of the committee took his role in a rotation. Prime Minister Mitsotakis addressed the public four times from the end of September until the announcement of the general lockdown at the beginning of November.
These slight changes in the communication strategy of the government together with the adaptation of the citizens to the pandemic lifestyle contributed to minimizing the public’s feeling of an upcoming second crisis. The rotational change of the epidemiologists in the press briefings also minimized the coherence of the messages and the effects of continuity to the first wave, including the connection/identification with leadership figures as well as the cohesion of the government strategic communication.

In the second wave of the COVID-19 pandemic in Greece, the strategic orientation of the messages slightly differed in the speeches given by Prime Minister Mitsotakis. The war frame, which was the master frame during the first wave period in his speeches, was replaced by the individual social responsibility frame. The reason for that change was apparently the fact that during the pre-crisis phase in October the basic response strategy was to mobilize the citizens to keep the precautionary measures to avoid the spread of the disease and eventually a lockdown.

To enhance the frame but also to highlight a new risk for the upcoming crisis, the Prime Minister Mitsotakis used strategies of rhetorical risk increase.

After a long period of stability, the cases are increasing exponentially in our country as well. And scientists warn that, soon, the new pandemic will shake the resilience of the National Health System. Challenging not only patients but also our doctors and nurses. (Mitsotakis, October 31, 2020)

However, the main rhetorical strategy used by Prime Minister Mitsotakis during the second wave of the pandemic was the strategy of bolstering/self-praise. This time, this strategy was implemented in an apologetic/image restoration manner in order to bolster the image of the government and address all the criticism that was initiated against it either from the citizens (e.g., masks denial movements) or the political opposition (accusation of mismanagement of the secondary crises and other measures like school opening).

The government, I remind you, is fighting on many fronts at the same time: National issues, Immigration, Economy, but also natural
disasters. But especially in the war for health, we need the conscious citizen as an ally more than anywhere else. (Mitsotakis, Sept. 24, 2020)

The strategy of bolstering also aimed to enhance the image of the prime minister himself mainly to restore the trust in his figure as a leader and crisis management authority as it was during the previous wave of the pandemic.

I have proved, after all, that I do not hesitate to make difficult decisions quickly. But in order to tame the new wave of the pandemic, the state, scientists and citizens must work even more closely, with more trust in each other. (Mitsotakis, Sept. 24, 2020)

A new input in the strategic communication of the prime minister is the increased use of a new frame, the frame of hope. This frame was used more frequently than in the first wave, where it was almost absent in the public briefings.

I will close, however, with an optimistic message. Because for the first time since the beginning of this adventure, the prospect of having a safe and effective vaccine appears on the horizon. And the government has made sure we get it on time, and make it available to everyone, as quickly as possible. At the same time, the flu vaccination is proceeding according to plan. (Mitsotakis, Oct. 22, 2020)

The hope frame was used to motivate the public to show resilience and patience for the second wave. The storytelling of an imminent “happy ending” of the pandemic would give the citizens strength to follow the measures for some more time. Especially during the lockdown in November, the press briefings included the publication of the government plans regarding the vaccination process which would begin in January 2021.

In sum, Prime Minister Mitsotakis’s discourse, during this period, forms the strategy of transcendence. Apparently, the failure to effectively manage the pre-crisis phase of the second wave of the health crisis led to a second general lockdown, which was considered a failure due to the burden of secondary crises. The increased use of bolstering strategy (especially self-praise) shows that the prime minister tried to restore his image toward society in an attempt to transcend from explaining why the situation got
from “We are far away from a lockdown” (Chardalias, Oct. 16, 2020) to the imposition of a lockdown 15 days later.

**Discussion**

In light of RQ1, the findings show that the basic pandemic management tool used in both pandemic waves in Greece was a severe lockdown, including all the economic activities that related to gatherings in public places and prohibition of unnecessary movement. Distance working from home was imposed for all administrative and service-related staff. A slight difference between the two pandemic waves was the imposition of obligatory masks in all public places during the second wave.

Although the same measures were imposed in both waves, the second was considered a more serious one. One reason might be the late imposition of containment measures and the absence of precautionary measures during the initial phase of the crisis in early to mid-October. This suggests a failure in the proper identification of the crisis phases.

Regarding RQ2, the findings suggest that during the first wave, Greece seemed to have taken advantage of all the crisis phases, drawing up action plans early on, and aimed to prevent a large and uncontrolled influx of cases. Damage control strategies like the closure of all activities that contained gatherings were taken during the main crisis phase. Strategies were adjusted when necessary according to the environmental scanning. This way, Greece managed to prevent the spread by being one step “ahead of the disease.” At the same time, the government increased the resilience of the health system, preparing for worst-case scenarios.

At the communication level, during the first wave of the pandemic in Greece, the ongoing information campaigns in the media, as well as the cohesive strategic communication message at the daily press briefings by the same crisis managers, increased the level of trust by the public, limiting the spread of fake news and disinformation. The crisis management objective was clearly communicated from the beginning during the first wave. On the contrary, during the second wave, the delayed response, or the total absence of precautionary measures before the cases got out of
control, led to a more severe crisis. Furthermore, the government authorities’ crisis communication during the second wave failed to inform the citizens of the state of emergency at the pre-crisis phase. Reassuring messages misinformed the citizens on the real situation. Besides, the rotation of the experts’ committee representatives in the press briefings led to the weakening of the strategic communication messaging. The objective, this time, was not clearly defined and communicated based on the data analyzed.

As far as RQ3 is concerned, the main rhetorical strategy (RQ3a) used was the bolstering/self-praise which aimed at the enhancement of the leadership image and the defense of the measures taken by the government. The dominant frames (RQ3b) were the war frame, and the individual social responsibility frame. During the first wave, the war frame was dominant, whereas, during the second, the individual social responsibility frame took its predominant place. The change shows that the aim of Greek public health authorities was to mobilize the citizens to keep the protective measures and to avoid a lockdown.

Consequently, the findings of this study suggest that the first wave was managed more effectively than the second one. The change in decisive variables such as leadership communication and failure of following the crisis cycle vigilantly affected Greek government’s pandemic management outcomes. As this study argues, early management measures would have prevented an uncontrolled escalation of the pandemic during the second wave.

A fundamental limitation of the study is the examination of the managerial process in only one country, where the same government handles two discrete crises caused by two surges of COVID-19 cases. Another limitation is the absence of supportive medical and epidemiological data that could provide important additional variables. Future research may focus on comparative studies with more countries to get more evidence on a broader overview of effective pandemic management. Besides, follow-up studies should be carried out, based on and expanding the current research framework, to further understand the ongoing evolution of the crisis management of the pandemic in Greece and other countries throughout 2021.
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Risk and Crisis Communication about Invisible Hazards

Ruth Ø. Skotnes1, Kåre Hansen1, and Anne V. Krøvel1

1. NORCE Norwegian Research Centre, Norway

ABSTRACT

This article discusses differences between invisible and visible hazards, and how these differences can affect risk and crisis communication. Invisible hazards are risks that we cannot see, and often cannot touch, taste, nor smell. Examples are COVID-19, radon gas, mold spores, or asbestos fibers. Invisible hazards are often uncertain, complex, and ambiguous risk problems. Results from a Norwegian study show that authorities need to be aware of the possible differences in risk perception among authorities, stakeholders, and the general public. Involving citizens, creating trust, and being honest is important for all risk and crisis communication. However, the less we know about a hazard, the more we need to rely on others to make decisions, and consequently trust is particularly important when dealing with invisible hazards.

KEYWORDS: sensemaking, narratives, COVID-19, crisis communication, health communication

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Invisible hazards cannot be perceived through our senses, and they can have unclear causes and consequences. Examples are pandemics, such as COVID-19 (caused by SARS-CoV-2CV virus), radon gas, mold spores and other indoor particulate
matter, asbestos fibers, gas leaks, and chemicals in food and feed. These risks can have sudden, direct consequences (such as COVID-19 and gas leaks from plants or refineries) or delayed, long-term consequences (such as radon, asbestos, mold spores, and chemicals in food and feed). Communicating about these risks poses the dilemma of providing sufficient information without causing unnecessary concern.

The purpose of communication about risk is to provide people with the insights they need to make decisions or judgments that reflect the best available knowledge and their own preferences. All people exposed to risk should have enough information to cope with risk situations (Aven & Renn, 2010).

This article discusses the differences between invisible and visible hazards and how these differences can affect risk and crisis communication. The discussion is based on results from a research project (Skotnes et al., 2020) studying risk and crisis communication about invisible hazards in Norwegian municipalities (local authorities), in addition to examples from the Norwegian government’s (central authorities) risk and crisis communication about COVID-19. The aim of the article is to show that communicating about invisible hazards can entail challenges different from those of visible hazards, and that it is important for risk and crisis communicators to be aware of the complexity, uncertainty, and ambiguity that characterize invisible hazards.

**Literature Review**

According to Renn (2006), all risk communication must be tailored toward the three challenges of complexity, uncertainty, and ambiguity. Complexity refers to the difficulty of identifying and quantifying causal links between a multitude of potential causal agents and specific effects. Uncertainty refers to the difficulty of predicting the occurrence of events, and/or their consequences, based on incomplete or invalid databases. Ambiguity refers to different views related to the relevance, meaning, and implications of the basis for the decision-making (i.e., interpretative ambiguity), or the values to be protected and the priorities to be made (i.e., normative ambiguity) (Aven & Renn, 2010). Ambiguity means
that identical behavior or statements will be assessed entirely differently by different groups (Renn, 2006).

The type of invisible hazards that we discuss in this article can be characterized as uncertain, complex, and ambiguous risk problems. Opinions often differ greatly on these issues because people have different visions of the world and the future. These divisions include strong beliefs about the necessity or reasonableness of taking or rejecting specific risks. Communicating about ambiguities is not easy, as in such a controversy, each side is convinced to have the truth on its side and views any possible balanced coverage with distrust (Renn, 2006).

In this section, we provide a review of the research literature used as a theoretical framework for this article. First, we define the concepts of invisible hazards and risk and crisis communication. Then, we provide a short review of literature about risk perception, social amplification and attenuation of risk, and trust.

**Invisible Hazards**

Invisible (or hidden) hazards are risks that we cannot see, and often cannot touch, taste, nor smell. The hazards are unobservable; hence, people can lack the sensory perception of danger related to these hazards. When we are confronted with invisible hazards, we must depend upon information provided by third parties. The coronavirus 2 (SARS-CoV-2CV), which causes the disease COVID-19, is a clear example of an invisible hazard. The COVID-19 crisis is an urgent threat to societies’ basic structures and fundamental values and is a very complex and creeping megacrisis (Boin et al., 2020; Christensen & Lægreid, 2020). The UN General Secretary labeled the virus a “threat to humanity,” and the virus has been fought with draconian measures, closing down whole countries, regions, and municipalities. During the COVID-19 crisis major decisions have been taken under extreme time pressure, and deep complexity and uncertainty regarding the cause of the crisis, how the crisis will develop, and what the possible means and measures are (Christensen & Lægreid, 2020), have been constantly in mind. The risk of the virus/disease and the measures taken to fight it have been heavily debated in national and international media.
In a different example of an invisible hazard, Hevey (2017) found that a core challenge for communicating about radon risk and promoting radon remediation relates to the fact that the risk is inherently perceived as either low or simply non-existent. Many people underestimate the seriousness or long-term health effects of radon exposure. Furthermore, even when individuals are informed that their homes have high radon levels and are made aware of the consequent health threats, remediation rates are still low. Radon is a colorless, odorless, and tasteless gas. Consequently, there is an absence of sensory cues to alert people to the risk. In general, at low levels of risk, people can easily dismiss it as too small to worry about as they see any consequences as unlikely to occur.

A third example of an invisible hazard is indoor particulate matter (PM) exposure. According to Schleibinger et al. (2004), microbial damage in indoor areas is most frequently caused by molds and bacteria. Spores of molds and bacteria may become airborne and are therefore ubiquitous. They can enter indoor areas by passive ventilation or by ventilation systems. Schleibinger et al. state that infections by molds and bacteria are very rare, but persons with an immunodeficiency are especially susceptible to fungal infections. Overall, the dose relationship between the concentration of microbial particles mentioned and any adverse health effects described is not very well established, and, therefore, guidelines concerning microbial products indoors are sparse, and most are not scientifically sound. According to Hallman (2016), the invisibility of PM matters, and it represents a key issue in communicating the risk of indoor PM exposure. However, it can be difficult for people to make the link between an invisible cause and a later, invisible effect.

**Risk Communication versus Crisis Communication**

According to Lofstedt (2003), risk communication is best described as the flow of information and risk evaluations back and forth between academic experts, regulatory practitioners, interest groups, and the public. According to the Norwegian Directorate for Civil Protection and Emergency Planning, risk communication is about something that might happen, while
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crisis communication is about something that has already happened (DSB, 2014). According to Cairns et al. (2013), risk communication is not an instructive instrument; it is probably better understood as a discourse—the exchange of ideas between various stakeholders about something that might or might not become a threat in the future.

However, there is not always such a clear distinction between risk communication and crisis communication. Communication becomes crisis communication only when an incident turns into a crisis and people become worried and frightened. With good risk communication, it may, in some cases, be possible to avoid a crisis even if an incident (such as finding radon, asbestos, or mold in buildings) occurs.

However, Fischhoff (1995) also points out that avoiding all conflict is not realistic, nor even a legitimate goal for risk communication. The best-case scenario for risk communication is having fewer, but better, conflicts. Some conflicts could be avoided by preventing needless misunderstandings, others by forestalling unacceptable projects. Those that remain would then be focused on real issues. Most importantly, risk communication must be taken seriously; one cannot expect to quiet a raging controversy with a few hastily prepared messages.

**Risk Perception**

The psychometric paradigm (e.g., Slovic et al., 1978; Tversky & Kahneman, 1974) is noted as a landmark in research about public attitudes toward risk. The basis of this model is that individuals subjectively define risk and that the risk definitions may be influenced by a range of cultural, organizational, psychological, and social factors. People create mental models (i.e., they try to make sense of the world by creating meaning based on whatever information they have available) (Hallman, 2016; Slovic et al., 1980; Weick, 2001). Perception can be defined as “people’s beliefs, attitudes, judgments, and feelings, as well as the wider social or cultural values and dispositions that people adopt, toward hazards and their benefits” (Hevey, 2017).

Attitude can be shaped by several factors, such as whether the risk is observable or unobservable, whether the risk causes
fear/dread, whether the risk is known or unknown, whether the risk feels controllable or uncontrollable, and so forth. Slovic et al. (1980) found that unobservability can affect risk perception, together with other risk factors (i.e., familiarity, knowledge, and delayed effect). Sjöberg (2004), on the other hand, found that novelty did not seem to be very important in assessing perceived risk and found that other factors such as possible interference with nature and the severity of a hazard’s possible consequences played a larger role. Hence, the reaction to a hazard is not the same in every person. Individual characteristics can affect the importance of some dimensions and result in quite different judgments of risk (Savadori et al., 2004).

Several well-established cognitive heuristics (“mental shortcuts”) impact our risk perception, which impedes appropriate behavioral responses (Hevey, 2017; Slovic et al., 1980). An example is the affect heuristic. According to Slovic et al. (2007), in the process of making a judgment or decision, people consult or refer to an “affect pool” containing all the positive and negative tags consciously or unconsciously associated with the representations. When a negative feeling is linked to an image of a future outcome it sounds an alarm. However, when a positive feeling is associated with the outcome image, it becomes a beacon of incentive.

A major problem in risk communication is tailoring the content of the communication process to the interests and concerns of the different social and cultural groups within a society, thus risk communicators need a better understanding of peoples’ concerns and perceptions of risk (Aven & Renn, 2010).

**Social Amplification and Attenuation of Risk**

The theory of social amplification of risk states that hazards interact with psychological, social, institutional, and cultural processes in ways that may amplify or attenuate public responses to the risk or risk event. Behavioral patterns can, in turn, generate secondary social or economic consequences, but may also act to increase or decrease the physical risk itself (J. X. Kaspenson & Kaspenson, 2005). Specific biases are evident, and people can often either overestimate or underestimate a risk (Slovic et al., 1980).
As an example, during the last decade, several invisible hazards that led to food and feed scares were reported in the media, such as BSE, acrylamide, aspartame, and melamine milk. According to Fjaeran & Aven (2019), this has led to risk amplification and public distrust in regulatory bodies and food industries. The Social Amplification of Risk Framework (SARF), which was introduced by R. E. Kasperson et al. in 1988, provides a description of how and why people can respond in this way and explains how risks that were assessed by experts as low risks can still produce significant public concern that often has significant societal impacts (Fjaeran & Aven, 2019).

Attenuation, on the other hand, involves weakening or decreasing the importance or “volume” of certain risk signals and symbols (Fjaeran & Aven, 2019). As an example, unrealistic optimism occurs when individuals have unreasonably low estimates of their own susceptibility to harm. For example, Weinstein et al. (1988) found that people who did not test for radon in a high-risk area in the U.S. held “optimistic biases,” whereby they underestimated the risks associated with their own exposure to radon. According to R. E. Kasperson (2012), low-level radiation risks from natural sources and medical exposures are often attenuated and underrated, whereas radiation risks from nuclear power facilities may be amplified. Attenuation of risk can be important in that it allows individuals to cope with the multitude of risks and risk events encountered daily. However, it may also lead to potentially serious consequences from underestimation and under-response (Fjaeran & Aven, 2019; R. E. Kasperson et al., 1988).

The SARF Framework has been criticized for implying that it is possible to define a benchmark “real” risk that is determined by experts and around which public risk perceptions can subsequently become amplified. This objectification of risk is particularly problematic when there are high levels of scientific uncertainty and a lack of consensus about the nature of risk and its impacts. Urquhart et al. (2017) found that risk assessment is a socially mediated, relational, and incremental process with experts drawing on a range of official, anecdotal, and experiential sources of information, as well as references to past events, to assemble a risk case. Slovic et al. (1980) also found that experts seemed as prone to overconfidence
as lay people, and Sjöberg (2004) found that experts made risk judgments on the basis of factors and thought structures that were similar to those of the public.

However, Sjöberg found a dramatic gap between experts’ and managers’ risk perceptions and those of the public and many politicians. According to Sjöberg, people want to avoid disastrous consequences no matter how small the experts assert their probability to be. He found that demand for risk mitigation was not strongly related to perceived risk but rather to the expected consequences of accidents or other unwanted events (Sjöberg, 2004).

Sandman (2009), in turn, concluded that there are three different risk communication paradigms, and these three risk communication paradigms have very little in common: (1) precaution advocacy—alerting apathetic people to serious risks; (2) outrage management—reassuring upset people about small risks; (3) crisis communication—guiding appropriately upset people through serious risks.

According to Sandman (1993; 2004), the key determinant of the public response to a hazard is not the magnitude of the hazard itself but the level of public outrage, or concern, about it. When people experience strong emotions, they have more difficulty hearing and processing information and are more likely to pay attention to negative rather than positive information. When it comes to high-outrage and low-hazard risks (outrage management), the key goal of communicators is to reduce public concern. The chief task of communication is to address the outrage, not to state or debate assessments of the hazard itself. According to Hooker et al. (2017), the best foil for outrage is to build sustainable public trust.

**Trust**

Trust helps us reduce uncertainty to an acceptable level and simplify decisions involving a large amount of information. The less we know about an activity, the more we need to rely on others to make decisions and the more our judgments about risk become a matter of trust (Savadori et al., 2004). Trust in control institutions can compensate for even a negative risk perception, and distrust may lead people to oppose risks even when they are perceived as small (Aven & Renn, 2010).
According to Aven and Renn (2010), information alone will never suffice to build or sustain trust. The first step in any communication effort is to find a common denominator, a common language, on which the communication can proceed and develop. Gaining institutional trust requires a continuous dialogue between risk managers, stakeholders, and representatives of the public. Participation creates confidence in the risk management process, and faith is important in risk management, particularly when it comes to risk from invisible hazards.

Trust is difficult and time-consuming to create and easily destroyed. Information that is received unproblematically at one point can be interpreted very differently under circumstances of mistrust. According to Sandman (2004), acknowledging uncertainty is a key recommendation for building sustainable public trust.

**Methods**

The data for the article were gathered through a research project studying risk and crisis communication concerning invisible hazards in Norwegian municipalities, in addition to a literature study of international research on risk communication, crisis communication, and invisible hazards. Risk and crisis communication is an important task for Norwegian municipalities, due to a statutory responsibility to inform and safeguard its citizens against hazards that may pose a risk to people and health.

The project was developed based on results from a pre-project carried out in five Norwegian municipalities in 2015 that focused on communication about radon (Solbakk et al., 2015). The results from the pre-project showed that risk communication about invisible hazards was a challenging task for the municipalities. Several of the municipalities had crisis communication plans, but they lacked routines and strategies that could be helpful before incidents occurred. Managing invisible hazards had been resource consuming for the municipalities, and the knowledge gained after incidents were not readily available to others.

In the current project we conducted six in-depth case studies in four Norwegian municipalities from 2017 to 2020. The studied
municipalities were selected from the region of Western Norway. One of the case municipalities was a previous participant in the pre-project, and the remaining three municipalities were chosen based on the researchers’ knowledge combined with a search for news stories in Norwegian media outlets. The case municipalities were also chosen to represent municipalities with different sizes and resources. In collaboration with the selected case municipalities, we then chose the six case studies which were incidents involving risk and crisis communication about invisible hazards that had occurred in the municipalities during recent years, had received media attention, and, in some cases, had led to conflict with stakeholders (i.e., those who are directly affected by the risk). The main purpose of the project was to help municipalities better understand the differences between visible and invisible hazards and evolve from mainly using reactive crisis communication to also using more proactive risk communication.

The case studies we chose for this project were as follows: Discovery of radon gas at a kindergarten and radon gas at a primary school (in a large municipality—approximately 24,000 inhabitants); mold spores at a primary school and asbestos fibers at a municipal swimming pool (in a large municipality—approximately 133,000 inhabitants); gas leaks at an oil and gas terminal (in a small municipality—approximately 4,700 inhabitants); and gas leaks at an oil refinery (in a medium-sized municipality—approximately 15,000 inhabitants).

The data were gathered through seven focus group interviews and 10 individual in-depth interviews. We interviewed people responsible for communication about the incidents in our case studies, including communication managers, health directors, representatives from the occupational health services, councilmen, property managers, contingency planning managers, advisors, school principals, and kindergarten managers. We also interviewed stakeholders (parents and employees) and representatives from the media. Examples of the questions asked in the interviews were: How did the case evolve? How was risk communicated and who organized it? Why was this procedure chosen? Did you have plans/strategies in advance? Did you follow these? Was there anything you found challenging about communicating about this
hazard? In your experience, is there a difference in communicating about visible and invisible hazards? Did you learn from previous experiences with communication about invisible hazards? Did you use this experience in the next case? What type of information about this hazard did you receive from the municipality? How do you perceive the communication from the municipality? In addition to the interviews, we conducted document studies of the municipalities’ strategies, procedures, and routines for risk and crisis communication. This article focuses on results from parts of the gathered data material.

All interviews were recorded on audio file and transcribed in verbatim. The texts were then read by the three researchers (the authors of this article) who conducted the interviews and discussed and analyzed jointly between them. The main themes were identified, with an accompanying set of quotes from the interviews that substantiated the findings. The researchers’ findings were then presented at a workshop for representatives from the case municipalities where the interviews were conducted. The representatives were given the opportunity to comment on and correct the researchers’ findings, which served as a quality assurance of the results and helped to strengthen the reliability of the study. Finally, the representatives from the case municipalities were invited to read and comment on the completed analyses and conclusions as a last quality assurance of the research process.

Lastly, the COVID-19 crisis happened during the project period, and as the coronavirus is a clear example of an invisible hazard, we have added examples about COVID-19 to illustrate the challenges related to communication about invisible hazards.

Results and Discussion

The municipalities that participated in the research project had experienced incidents where communicating about invisible hazards had become challenging. Most of the municipalities saw a need for more knowledge about the differences between visible and invisible hazards and advice on how to better communicate the risk of invisible hazards to its citizens. The subsequent presentation of the results is organized according to the main themes
that were identified during the analysis of the data material, with an accompanying set of quotes from the interviews that substantiates the findings. Furthermore, the results are discussed according to the theoretical framework presented in the Literature Review section.

**Differences between Risk and Crisis Communication about Invisible versus Visible Hazards**

In two of the studied cases, incidents with invisible hazards had led to serious conflicts between the municipalities and stakeholders. One case was the discovery of radon gas at a kindergarten, and the other was the discovery of mold at a primary school. In these cases, the stakeholders did not trust the experts hired by the municipalities, and they doubted and questioned the facts presented by the municipality.

In one of the cases, the parents hired their own experts, who came to different conclusions and disagreed with the municipality’s experts. This led to negative publicity for the municipality in the media. A participant from the focus group interview with this municipality put it like this:

“They mistrusted us, they didn’t quite believe us.”

In addition to complexity and uncertainty, the municipalities in our project experienced that some invisible risks led to more ambiguity than visible risks. There were disagreements about the causes of the hazards, the methods used for conducting measurements of the hazards, the interpretations of the results of the measurements, and/or the possible consequences of the hazards (interpretive ambiguity). Some risk estimates are based on uncertain inferences about incompletely understood processes. Experts can assess these risks differently, and sometimes there are no clear-cut answers. As an example, there may be disagreement about whether the invisible hazard is actually the cause of the symptoms and illness that occurs, such as whether radon gas and asbestos fibers cause cancer or whether mold spores lead to asthma. It may take a long time for symptoms to show, and some may think other
factors are the cause of the disease. As an example, a participant from a focus group interview with one of the municipalities said:

“And with asbestos, adverse effects might not appear until a long time has passed. And it is very uncertain, there are so many people that get cancer from different causes (. . . ).”

Moreover, the municipalities experienced disagreements about which values should be protected and which priorities should be made (normative ambiguity). For example, some people accepted that there were asbestos sheets in a building they worked in and knew that work was not being done that could cause harmful asbestos dust. Others considered this to be unacceptable.

The COVID-19 crisis has also been marked by both interpretive and normative ambiguity. As previously mentioned, the risk of the virus/disease and the measures taken to fight it have been heavily debated. There have been disagreements about where the virus came from, what caused it, possible consequences of the disease, and, also, which values should be protected, and which priorities authorities should take in the fight against the virus.

Furthermore, communication about the coronavirus provides an example of the unclear distinction between risk communication and crisis communication. Governments around the world were ill-prepared for the coronavirus, even though they knew pandemics were a threat. The rapid spread of the virus came as a surprise, and quickly turned into a crisis. Thus, governments’ communication about the virus can be characterized as crisis communication: communication about something that has already happened. However, the COVID-19 crisis is long-lasting, and, as mentioned, there is still uncertainty about how the crisis will develop and what the possible means and measures to handle the crisis is. Thus, parts of the communication can also be characterized as risk communication: communication about something that might happen in the future.

The findings from our study confirm that whether a hazard is observable or not can affect how people perceive the risk, and invisible hazards may therefore represent additional challenges for risk and crisis communicators. Differences in risk perception exist
regarding visible hazards as well, such as the risk of driving a car, flying a plane, the dangers of a ceiling collapse, and so forth. However, these visible hazards seldom lead to a communication crisis and strong concern among stakeholders and the public. In the research project, we found that visible hazards did not bring about as much uncertainty and ambiguity as invisible hazards. With visible hazards, one can see and possibly also perceive with one’s other senses what the danger is; one can see the results of the hazard and what is being done about it. A participant from a focus group interview involving one of the municipalities emphasized this:

“But with invisible hazards you have this added element of fear, because after all, the documents we show and what we say in statements, they can’t see it or feel it for themselves.”

**Differences in Risk Perception and Social Amplification and Attenuation of Risk**

The results from our research project suggest that invisible hazards that are assessed as low risk by a municipality may become a crisis if the hazards invoke concern or fear among the stakeholders. A participant from a focus group interview with one of the municipalities said it this way:

“We need to recognize and understand that things that we perceive as trivial can still create fear.”

In other cases, the municipalities expected strong concern and fear among stakeholders but there were no reactions. Hence, the results from our study can confirm the theories about risk amplification and attenuation. By this, we do not imply that it is possible to define a benchmark “real” risk that is determined by experts and around which public risk perceptions can subsequently become amplified or attenuated (Urquhart et al., 2017). Rather, we can simply demonstrate that the public’s risk perception was amplified or attenuated in relation to experts’ or managers’ risk perception.

The results also confirm the risk perception theory that, in many cases, people are more concerned about risks if they affect others, especially children, rather than themselves. Risk perception
research has identified several emotional characteristics (the affect heuristic) that bear directly on fear, and one of them is that risks to children evoke much more concern than the same risks to adults (Ropeik, 2013). According to Ropeik (2002; 2004), one of the important factors of risk perception is that when the risk is perceived to affect future generations (i.e., when kids are at risk), our fear is greater. For instance, asbestos in a workplace does not frighten us as much as asbestos in schools (Ropeik, 2002).

The two cases in our study with the most serious conflicts between the municipalities and stakeholders confirm the theory that people feel the most fear when their children are at risk. As an example of this, a participant from a focus group interview with one of the municipalities stated:

“( . . . ) And unlike the asbestos case that affected adults, this affected children. And then it gets much worse.”

However, the project results showed that this did not happen in every case. For example, one of the municipalities in the study had experienced a case where they found asbestos sheets in a school. The municipality wanted to close the school, but the parents objected. In this specific case, there were presumably other factors that played a more important role in the situation, such as keeping the local school open.

According to Fjaeran and Aven (2019), risks can develop, grow, and/or change character over time. Risks may be attenuated for years; they may then go through a brief or a long period of focus and attention, where some people intensify signals that are downplayed by others, before they are again forgotten, ignored or attenuated, and so on. It is important for the authorities to try to understand how the public feels about a risk, because this can play an important role in the way the public receives information. This point was highlighted by a participant from a focus group interview with one of the municipalities:

“But it’s important to try to assess the situation, in all cases, how serious is the matter the first time you hear about it? Is this something that will blow over, or is this actually the beginning of a nightmare?”
The results from the project’s case studies showed examples of Sandman’s (2009) three different risk communication paradigms (i.e., precaution advocacy, outrage management, and crisis communication). As previously mentioned, the chief task of communication is to address the outrage, not to state or debate assessments of the hazard itself. Thus, it is important for the authorities to be aware that there are different risk communication paradigms and different ways of handling communication about risk problems. A participant from a focus group interview with one of the municipalities put it this way:

“Yes, you have to face people’s fears and worries, not just try to lessen it. You have to face it and also accept it—this has occurred, no one denies that.”

According to Cairns et al. (2013), a message action plan that is based on knowledge of the expectations of audiences, existing relationships, and lines of communication is particularly valuable for crisis communications teams. This may be complemented by preemptive communication strategies, such as the dissemination of updated information on educational websites and newsletters before emergency situations occur to prepare key audiences for possible eventualities. By presenting risk communication messages long before the emergence of a crisis event, the probability of its occurrence might be reduced. Communicators also need to be prepared to modify messages if circumstances change and have an awareness of the active role participants play in communicative processes. This is also in line with the World Health Organization (WHO)’s Outbreak Communication Planning Guide:

Proactive communication of a real or potential health risk is crucial in alerting those affected and minimizing an infectious disease threat. Announcing early—even with incomplete information—prevents rumors and misinformation. The longer officials withhold information, the more frightening the information will seem when it is eventually revealed, especially if it is revealed by an outside source. (WHO, 2008)
Late announcements will erode people’s trust in the ability of the authorities to manage the hazard. This was underlined by a participant from a focus group interview with one of the municipalities:

“And if you haven’t made sure that you give enough information beforehand, then there will be a lot of speculation. So, being proactive, and being as open as you can, as clear as you can, as early as possible, I think is very important.”

According to Hooker et al. (2017), public reactions during the initial period of a risk event have costs and may be at odds with what experts recommend. However, they are often transient. It is more useful to plan to accommodate early overreactions to allow them to subside as swiftly as possible. Communicating early and often may risk generating extra media attention, and reveal problems that people have never imagined before, but at the same time it enables the authorities to capture the issue.

**Involving the Stakeholders**

Participatory dialogue is especially useful when developing risk and crisis communication strategies (Cairns et al., 2013; Glik, 2007). It is important to actively engage with stakeholders and avoid one-way communication between experts and the public. This can serve as an act of empowerment for stakeholders. The process of receiving consequential and pertinent information raises awareness of the risks pertaining to a specific issue. This, in turn, gives stakeholders the opportunity to make informed choices and acquire a sense of control over their own well-being (Cairns et al., 2013).

Several of the municipalities that participated in the project had experienced this. As one of the participants from a focus group interview with one of the municipalities stated:

“( . . . ) (M)y impression is that if you can manage to get the stakeholders involved fast, and make them feel that they are taken seriously, that they get information early, then you can save yourself a lot of trouble ( . . . ) they are very interested in getting involved.”
Fischoff (1995) also found that involving the stakeholders during a process of risk communication was a good idea. This can show the safety measures taken and possibly dampen the social amplification of minor risks, as well as to generate concern where it is warranted.

**Coordination and a Common Stance**

The municipalities also emphasized that when communicating about a risk it was important to coordinate and cooperate between different departments and/or persons that had a responsibility for handling the invisible hazard. Everyone involved should take responsibility for the risk and/or crisis communication and not wait and assume that another department would take care of the problem. They should meet as soon as possible, inform each other, and agree on a joint message and a common stance. A participant from a focus group interview with one of the municipalities put it this way:

“(….) But, working across different disciplines, I think that was one of the things that helped us find a good solution to this. So, this is a matter that can be a point of concern when public administration needs to handle something, namely that people don’t talk to each other across different departments and disciplines.”

According to Christensen and Lægreid (2020), an important part of the Norwegian authorities’ communication strategy during the COVID-19 crisis was that political, administrative, and professional executives appeared to take a common stance. Thus, an important lesson from meaning-making in a crisis situation is the importance of formulating a shared, sensible, persuasive, and common message in the wake of a crisis; working together to make a credible picture of what is going on; planning how to handle it; and communicating this understanding to the general public (Boin et al., 2019; Christensen & Lægreid, 2020).

**Trust**

As found in many studies of risk and crisis communication, the results from the research project showed that it was important
for the municipalities to be honest and try to establish trust. As Hooker et al. (2017) state, the best foil for outrage is to build sustainable public trust. When facing trade-offs in probable outcomes from communication it is always best to choose strategies to maintain or build trust, even at the cost of initial overreactions. One of the participants from the focus group interview with parents at a school said:

“Honesty. It would be better if they had said: ‘We do not have enough knowledge about this, but we will do the best we can, and call you back in a week.’ But no one would take the responsibility.”

As another example, in relation to genetically modified organisms, Marris (2001) found that focus group participants wanted a more realistic assessment of risks by authorities. The participants found expert statements that asserted that there were no risks to be disconcerting and untrustworthy. The participants in the focus groups accepted that it was necessary to counterbalance risks with benefits but felt that they were not told how this judgment had been made and were not invited to participate in the process. Therefore, they suspected that economic interests had overridden health and environmental considerations.

Results from the research project also showed that it was important for the municipalities to quickly appoint a contact person that people could approach if they had fears or worries, or just needed more information. The contact person should have good communication skills and be knowledgeable, empathetic, and humble. The contact person should also acknowledge any uncertainty. A participant from a focus group interview with one of the municipalities said:

“( . . . ) If there is no contact person, then people may be left wondering: What do I do now? What should I do? Can I leave? Should I investigate? How dangerous is this?”

According to Fjaeran and Aven (2019), adopting an uncertainty-based perspective on risk may inject some amplification into risk assessment and management processes. However, in relation to risk problems characterized by complexity, uncertainty,
and ambiguity, an uncertainty-based understanding of risk can improve assessment and management processes and practice in ways that can prevent attenuation from occurring and/or spreading. If attenuated risks are revealed, for instance following an unanticipated risk event, accident or exposure to camouflaged risk information or new knowledge, risk tends to become highly amplified, resulting in significant and far-reaching effects. Some risk amplification at an early stage of such processes, making the invisible more visible, may reduce the degree of later amplification and the associated consequences.

According to Andrade et al. (2020), disasters present unique challenges given their inherent uncertainty, and facts can be elusive in rapidly evolving disaster contexts. “Information vacuums” can create opportunities for the public to speculate, make inferences to explain gaps, question motives, generate rumors, or propagate unverified or false information in an attempt to reconcile perceived incongruences (Andrade et al., 2020; Hagar, 2013). The media often plays a major role in disseminating the authorities’ meaning-making and communication with citizens, and managing media relations is an important part of authorities’ communication strategies (Christensen & Lægreid, 2020).

It is also important to show the stakeholders and public that measures aimed at reducing the risk are implemented as fast as possible. According to Hooker et al. (2017), public concerns are most effectively allayed by actions rather than words. People want to know what is being done to actively mitigate the risk, not just be reassured. A participant from a focus group interview with one of the municipalities explained it this way:

“(…) I think we were too uncertain in our communication, we waited too long to take action; are they implementing measures, or are they trivializing it, underestimating the danger?”

As an example, the Norwegian government hesitated and took a wait-and-see approach during the early stages of the coronavirus outbreak in 2020 (Christensen & Lægreid, 2020). Consequently, the authorities were criticized in the media for reacting too late and for being too defensive. This led to widespread confusion among the public, and people were unsure of how serious the risk really
was. However, on March 12, 2020, the Norwegian government implemented draconian measures to combat the virus (Christensen & Lægreid, 2020), including closing down kindergartens and schools and closing the borders. According to articles in the Norwegian media, the main response from the public immediately after this decision was that it was good to finally receive some clear and unambiguous guidelines from the authorities.

Conclusion

It is important for those responsible for risk and crisis communication to be aware of the complexity, uncertainty, and ambiguity that characterize invisible hazards, which can vary from case to case, depending on the context. People’s reactions to invisible hazards are often influenced by guesswork and different interpretations. Risk and crisis communicators need to be aware of possible differences in risk perception when they plan how to communicate about risks. Social amplification and attenuation of risk are some of the factors that can explain why there are such differences in risk perception related to invisible hazards, both between risk experts/managers and the public, and between different groups of citizens. Communicators should be aware that different risk problems thus require different responses.

Creating trust and being honest are very important for all risk and crisis communication and even more important when it comes to invisible hazards. This is because the less we know about a hazard, the more we need to rely on others to make decisions and the more our judgments about risk become a matter of trust (Savadori et al., 2004). According to Hooker et al. (2017), the governing aphorism for successful risk communication is that people need to hear that you care before they really care about what they hear, and demonstrating that you care far beyond a performance of concern. However, if this is inauthentic it can generate mistrust. Successful risk and crisis communication require the building and sustaining of public trust.

Furthermore, it is important to coordinate and cooperate between different departments and/or persons that have a responsibility for handling the invisible hazard and agree on a joint
message and common stance. Stakeholders, and in some cases the public, should be involved and dialogue should be facilitated. Involving the stakeholders can run the risk of revealing problems that people have never imagined before, and those responsible for risk and crisis communication want to avoid creating unnecessary concern or fear. However, it can also show which safety measures are taken, perhaps dampen the social amplification of some risks, and generate concern where it is warranted (Fischoff, 1995).

**ORCID**

Ruth Ø. Skotnes  
https://orcid.org/0000-0001-5329-7942

Kåre Hansen  
https://orcid.org/0000-0003-2442-8952

Anne V. Krøvel  
https://orcid.org/0000-0003-2108-2933

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