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Centralization and Democratization: Managing crisis communication in health care delivery

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Abstract

Background: Communication is an essential organizational process for responding to adversity. Managers are often advised to communicate frequently and redundantly during crises. Nonetheless, systematic investigation of how information receivers perceive organizational communication amid crises has remained lacking.

Purpose: To characterize features of effective internal crisis communication by examining how information sharing processes unfolded during the initial stage of the COVID-19 pandemic.

Methodology: Between June-August 2020, we conducted 55 semi-structured interviews with emergency department (ED) workers practicing in a variety of roles. We analyzed interview transcripts following constructivist constant comparative methods.

Results: Our findings revealed that at the onset of COVID-19 pandemic response, ED workers struggled with immense fear and anxiety amid high uncertainty and equivocality. Frequent and redundant communication, however, resulted in information delivery and uptake problems, worsening anxiety and interpersonal tension. These problems were ameliorated by the emergence of contextual experts who centralized and democratized communication. Centralization standardized information received across roles, work schedules, and settings while decoupling internal communication from turbulence in the environment. Democratization made information accessible in a way that all could understand. It also ensured information senders' receptiveness to feedback from information receivers. Centralization and democratization together worked to reduce sensed uncertainty and equivocality, which reduced anxiety and interpersonal tension.

Conclusion: Establishing frequent and redundant communication strategies does not necessarily address the anxiety and interpersonal tension produced by uncertainty and equivocality in crises.

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Practice Implications: Centralization and democratization of crisis communication can reduce anxiety, improve coordination, and promote a safer workplace and patient care environment.

Keywords

Crisis management; crisis communication; information processing; leadership

INTRODUCTION

Communication is an essential organizational process for responding to adversity because crises are confusing and emotionally charged (Maitlis et al., 2013). As a process through which individuals collectively make sense of their circumstances and organize (Weick et al., 2005; Heide & Simonsson, 2020), communication assists organizational members in interpreting, acting, and psychologically coping with potential threats (Pearson & Clair, 1998; Sturges, 1994). While a rich literature has explored how organizations communicate externally to the public during crises (i.e. public relations), there is a dearth of research on internal crisis communication within organizations (Frandsen & Johansen, 2011; Heide & Simonsson, 2020). The prevailing advice has been that managers facing crises should communicate frequently and redundantly with their staff (Holtom et al., 2020; Wu et al., 2020). But there are reasons to question the appropriateness of this common advice for contemporary crises within healthcare organizations. New research exploring how organizational communication is perceived by organizational members is needed to update existing organizational communication literature and inform communication strategies during crises.

Prior research on internal crisis communication primarily conceptualized it as a function of one-way managerial routing of messages to workers acting merely as receivers (Heide & Simonsson, 2021). This scholarship addresses problems regarding information channels, content, and flow including time and information constraints placed on boundedly rational decision-makers, inability to rely on routine channels, potential for conflicting messaging and poor message design, and information bottlenecks among other factors that can lead to communication failures (Hale et al., 2005; Quarantelli, 1988). More recent perspectives, however, call for a reconceptualization of internal crisis communication as an interpretive, dynamic, and relational exchange process embedded in ambiguity and complexity (Ruck & Men, 2021). This more recent literature underscores the importance of understanding communication during crises not only from the perspective of those transmitting information but of those receiving it, particularly on the frontlines of service organizations in which individuals may need to incorporate and adapt information communicated from management into their daily work processes during an evolving crisis.

Effectively managing organizational communication was one of the most significant operational challenges faced by health care delivery organizations at the onset of the COVID-19 pandemic (Baugh et al., 2020; Sangal et al., 2021; Stark et al., 2022; Wu et al., 2020). On the frontlines of pandemic response, disrupted patient care processes alongside widespread staff and equipment shortages burdened health care workers with worsening anxiety and burnout (Hayirli et al., 2021; Rodriguez et al., 2020). Maintaining organizational

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efficacy and supporting hardworking staff called for the acquisition, interpretation, and communication of information heedful of patient and workplace safety concerns (Atkinson et al., 2021; Barrett et al., 2021). Survey studies of emergency department (ED) workers early in the pandemic provided some evidence that satisfaction with organizational communication was associated with lower reporting of anxiety and burnout symptoms (Rodriguez et al., 2020; Sangal et al., 2021). Nonetheless, systematic investigation of how information receivers perceived organizational communication has remained lacking.

To contribute to the intersection of health care management and internal crisis communication scholarship, we draw on organizational information processing theory and ask: How do workers process and respond to organizational communication at the onset of a crisis, and what are the features of communication that enable workers to process and use information? We examine this question qualitatively in the context of ED workers' experience of communication during the COVID-19 pandemic. Using in-depth interview data from a diverse range of frontline workers, we characterize features of effective communication by examining how information sharing processes unfolded during the initial stage of the pandemic.

CONCEPTUAL FRAMEWORK

Organizational theorists have long emphasized the importance of information interpretation and sharing for minimizing environmental uncertainty and equivocality in the pursuit of coordinated action by differentiated units within social systems (Daft & Lengel, 1986; Galbraith, 1974). Organizational information processing is defined as the process through which "organizational members assess, distribute, alter, or use organizationally relevant information" (Huber, 1982). Traditionally, information processing has been conceptualized as a response to uncertainty, which is defined as the absence of information (Daft & Lengel, 1986; Galbraith, 1974). In this perspective, responding to a lack of information requires organizations to acquire more information, decrease information needs (i.e. construct tasks requiring less complex interdependence), or increase processing capacity (i.e. empower integration through information technology and organizational design) (Galbraith, 1974). The uncertainty reduction perspective suggests that organizations respond to information needs structurally by enabling better coordination among internal sub-systems.

Another perspective on organizational information processing takes up equivocality, which arises from the multiple and possibly conflicting interpretations of confusing environmental cues by differentiated sub-systems relying of differing frames of reference (Daft & Weick, 1984). That is to say, it would be unreasonable to expect individuals with different backgrounds, trainings, cultures, pressures, and time-horizons to easily converge on the meaning of information. According to the equivocality reduction tradition, organizations respond to ambiguous cues in a hierarchical fashion because managers have information interpretation obligations above and beyond operational concerns (Daft & Weick, 1984). This perspective recognizes that information processing is not merely a problem of information acquisition, but has to do with translating cues into meaningful collective conceptual models through iterative dialogue, discussion, and negotiation.

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Media richness theory (MRT) provides an integrating perspective on organizational information processing (Daft & Lengel, 1986). MRT proposes that communication media vary with respect to the richness of the information they carry. Information richness has to do with the capacity of information to change understanding quickly. For instance, face-to-face communication provides richer information than email because it offers instant feedback and an array of visual and auditory cues. MRT also argues that a contingent approach should be employed when selecting communication modalities: while media of low richness are more appropriate when communicating well-structured and standardized messages for uncertainty reduction, richer media are necessary to support organizational members reduce equivocality and reach mutual understandings.

With respect to uncertainty and equivocality reduction in organizations, MRT endorses that seeking, acquiring, and interpreting equivocal stimuli from the environment are crucial managerial tasks. According to MRT, at the higher levels of organizational hierarchy, managers should engage subjective negotiations using rich media to construct common meanings and shared understandings of equivocal information. Once equivocality has been reduced, and information is synthesized, managers should use decreasingly rich media to communicate less equivocal rules and guidelines to those lower in the hierarchy, thereby reducing uncertainty within the organization.

These information processing perspectives integrated by MRT thus offer important insights to frame our understanding of communication in a context where the usual structures and processes of patient care were disrupted by the emergence of a novel and deadly respiratory virus. First, they highlight the critical role of obtaining information to reduce uncertainty, especially when new information is being rapidly generated at the onset of a crisis. Second, they emphasize that newly generated information is likely to be interpreted differently by individuals with differing frames of reference. Third, they call attention to the use of varying communication media by managers and their appropriateness for uncertainty and equivocality reduction. Lastly, they note that the experience of and interaction with information can be asymmetric across organizational hierarchies.

METHODS

The study setting included two EDs in California affiliated with an academic medical center. We purposively recruited 55 individuals to achieve similar proportions by department and role, and conducted semi-structured interviews between June-August 2020. The sample consisted of 18 registered nurses (RN), 17 physicians (MD), 7 nurse practitioners and PAs (APP), 5 pharmacists (Pharm), 3 social workers (SW), and 5 technicians and medical assistants (T/A). Approximately 44% of informants were from Hospital A, 40% from Hospital B, and 16% worked across both hospitals. We recruited informants by email after receiving IRB approval from the investigators' universities, and remunerated them with a $20 gift card for their time. Recruitment halted when we reached saturation at a point when no new information was gathered during interviews (Charmaz, 2006).

Semi-structured interviews were conducted with the aid of a guide developed through iterative discussions within the investigator team, which consisted of emergency

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physicians and management researchers, allowing for the hybridization of contextual and epistemological 'insider' and 'outsider' perspectives (Louis & Bartunek, 1992). As part of a larger study on teamwork, psychological safety, and burnout in health care delivery during the COVID-19 pandemic, we asked participants to discuss their experiences with communication, teamwork, and leadership (see Appendix 1). We wrote memos after each interview and held weekly debriefs to discuss emerging concepts and patterns. During the first set of interviews, it became clear to us that our informants were highly cognizant of and troubled by communication challenges. Therefore, we decided to ask probing questions to ascertain greater details and examples regarding informants' experience with communication. All investigators conducted interviews to ensure familiarity with data, which helped triangulate interpretations and findings among the research team. None of the interviewers had a pre-existing relationship with their informants.

All interviews were recorded on Zoom and lasted between 30–45 minutes. Audio recordings were downloaded and transcribed verbatim. After all interviews were completed, we began a more structured inductive and iterative coding process in the tradition of constant comparative analysis (Charmaz, 2006). Coding of the data was led by the first author, supported in analysis by the entire investigator team. We inductively developed first-order informant-centered codes through initial open coding. At this stage, our codes covered multiple topics including artifacts, emotions, experiences, processes, roles, and structures. The investigator team met to review the codes and discuss apparent patterns. We then conducted a more focused analysis regarding experienced emotions, channels of communication, and assessments of leadership. Comparisons ensued within and across these categories, as well as within and across sites and roles. At this stage, the investigator team met multiple times to iteratively construct higher-order themes. Lastly, we triangulated generalizing patterns across themes to theorize implications for managing organizational communication at the onset of crises.

FINDINGS

Uncertainty and feeling unsafe, fearful, and anxious

Our informants noted that they felt unsafe, fearful, and anxious because there was no information regarding the transmission of SARS-CoV-2, the virus' biology, or effective means of protecting oneself against the disease at the onset of the pandemic. Treatment guidelines and protocols designed to enhance coordination and aid clinical decision-making had not yet accounted for COVID-19. Patterns of clinical reasoning had to be altered since "every single differential diagnosis for every single patient pretty much included COVID-19." (MD3) With so much uncertainty about transmission, treatments, and testing, ED staff felt they were unable to make evidence-based decisions regarding how to best protect themselves or safely treat their patients. They feared becoming ill, worried about getting their loved ones sick, and felt concerned about potential tradeoffs between staying safe and providing safe and high-quality care to patients.

> "I was worried about infecting my family and my baby as I was still breastfeeding. With all these unknowns I was super anxious."
>
> (SW3)

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> "There was a huge amount of anxiety among a number of people about whether we didn't have enough PPE, or whether the patients were safe. What's going to happen when we hit a surge? What if we have to ration resources, either to ourselves or to patients?"
>
> (MD11)

Overwhelming delivery, decreased sense of functionality, and inhibited uptake

Facing the unknown, informants initially received communication from formal ED leaders (i.e. department chairs, executives) through their usual channels: emails and group meetings such as town halls. Information also flowed through the ED informally by word-of-mouth among colleagues. Emails were sent by formal leaders who provided updates to policies and offered a "barometer of how things are going" (MD3) in the ED, intensive care units, and the hospital at large. These emails were frequent, often sent multiple times per day depending on changes to guidance. In addition, formal ED leaders held bidaily huddles to "discuss the number of patients in the hospital that are COVID positive, the number in ICU, the number of ED beds available, the status of triage tents, the number of ED nurses that are out, or doctors that are sick." (MD1) Huddles were meant to help staff decide "where to put efforts on a daily basis when working on a shift," (MD7) and provided a space where "everybody gets together, who is able and free to stand and discuss updates." (Pharm4)

Although our informants expressed great desire for information, they also recounted feeling overwhelmed by highly frequent and redundant updates regarding changes to organizational policies and procedures shared via primarily less rich media. Broad information dissemination attempts through "daily, if not hourly emails" (RN4) were tightly coupled with the rate of change in updated guidance provided by the Centers for Disease Control and Prevention and other guidance generating bodies. Informants described struggling to make sense of frequent and redundant communication blasts that didn't seem to provide functional information needed to perform their tasks.

> "The sheer volume of email that we're getting makes it difficult to find the pertinent information that we need. It's kind of like hunting for a needle in a haystack."
>
> (RN7)

For most, keeping up with updates through emails became an "inundating" task, because emails often didn't contain answers to "the really key questions." (MD5) Informants further described their frustration with receiving the same email from multiple individuals in leadership roles who would "forward what everybody else is sending out," leading to "email fatigue." (RN5) In fact, some informants shared that they either stopped attentively reading emails or "stopped reading emails altogether" (RN15) because they did not believe that emails contained useful information.

Informants similarly felt that huddles – which required staff to meet in groups for 30 minutes – were overwhelming and provided insufficiently useful information. Bidaily huddles proved inadequate in a high-tempo environment, especially when staff were asked "to adapt, literally within three to four hours […] to the continually changing rules and

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regulations that the upper management threw down." (RN14) Hence, huddles and emails were additive rather than substitutive in terms of requisite time and attention. Furthermore, since "there was no one time in which every staff member was in the department," (RN7) some participants reported never being exposed to huddles. Reflecting on the attention required by emails and huddles, one informant summarized:

> "It's not a lack of communication – that isn't the phrase. It's more the disorganization of all this information. It feels both like the lack of information, but also getting bombarded with information."
>
> (RN2)

Divergent delivery, decreased sense of credibility, and inhibited uptake

Those who were not clinicians (i.e. APPs, MDs, or RNs) employed by the ED, however, reported experiencing reduced access to information. For instance, ambiguous boundaries regarding who belonged in the ED resulted in staff who supported their clinical colleagues failing to receive ED-wide communication. One medical assistant explained:

> "We weren't included in emails because technically, we're part of admitting. So, what pertains to us, we don't get informed about, because we're under a whole other umbrella. Sometimes we feel like we're the black sheep of the department."
>
> (T/A5)

One the other hand, those who received information frequently and redundantly perceived significant differences in received information. They reported that information received via routine channels were bounded by lists demarcating roles and sites, and explained how insufficient integration of differentiated channels led to staff sensing inconsistencies and doubt.

> "If anytime there's disparate guidance from [Hospital A] that differed substantially from that of [Hospital B], it raises the suspicion of, well, which one is right? Every single time there is something that's disparate between the two, it's usually problematic – just ratchets up anxiety."
>
> (MD11)

> "I think there was some confusion on what we have to wear regarding the use of N95 respirator masks […] So when we look at each other, and to the doctors, we say, 'why are you guys doing one thing and we're doing the other?'"
>
> (RN6)

As noted by these informants, perceptions of divergent information and equivocal interpretations hindered ED staff's ability to assess what they should believe, which worsened their anxiety. Our informants described that it was difficult to collectively take up information that felt "conflicting or at least non-complimentary." (MD7) Thus, receiving what felt like non-credible information had adverse consequences on managing interdependent work when interpretations of what to do differed. Influential instances of how "people weren't always on the same page" (MD17) regarding who could perform aerosol-generating procedures, when to wear what protective equipment, how patients

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experiencing homelessness should be quarantined, and other tasks that could impact clinician and patient safety had become embedded in personal and collective memory.

Looking to contextual experts

In the process of constant comparative analysis across the two sites, we noticed significant convergence in who informants named regarding who they looked to for direction and guidance. We interviewed these two informal physician leaders, Expert A and Expert B, from each site respectively. Both physicians shared relevant expertise: Expert A had served in West Africa during the Ebola outbreak, Expert B specialized in disaster medicine, and both had worked in their EDs for almost a decade. They recognized early on – by the middle of March 2020 – that organizational communication difficulties were impairing interdependent work. In response, they volunteered to take charge of communication and were granted formal authority from ED and hospital leaders.

> "I think the biggest impetus for me to get heavily involved was the day when I heard people talking about the nurses at the hospital being afraid and concerned. I had seen that with Ebola. People were terrified. A lot of people didn't know what was happening, but there were people that had information that wasn't getting to the people who were doing the work."
>
> (Expert A)

> "The number of emails and even text traffic was unmanageable, for me and for other people, without a central source of truth. […] When you have a large quantity of new and rapidly changing information, it's just difficult to keep it all as user friendly and as easily accessible as you possibly can while keeping it organized."
>
> (Expert B)

To provide improved guidance, both contextual experts focused on centralizing and democratizing information (Table 1). Centralizing communication activities standardized information received across roles, work schedules, and settings while decoupling internal communication from turbulence in the environment. We use the term centralization to remain close to our data, using the literal meaning of centralization as the activity of pooling things together in one place under a single authority. Democratizing communication activities ensured information senders' receptiveness to feedback from information receivers, as well as the personalization, accessibility, and tailoring of information received. We use the literal meaning of democratization as the activity of making something accessible to all, which in the case of information includes both ease of access and understandability.

Centralization

Both contextual experts served as the responsible and recognized sources of information for their EDs. ED staff knew that all sanctioned information would be delivered by their respective contextual experts. Hence, source centralization standardized official information and eliminated conflicts by providing a unified source irrespective of roles within the EDs.

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> "When information was changing so quickly, it seemed easiest and least error prone if everything came through me, just one central person, so that we didn't have conflicting sources of information at the same time. It is not that there was anything special about me, but a need for a gatekeeper."
>
> (Expert B)

Centralizing communication under their authority, both contextual experts employed information management teams to quickly build and maintain online information platforms starting at the end of March 2020. These platforms served as repositories of all updates to guidelines and changes in rules, which were vetted and synthesized by the contextual experts and their teams. They were accessible by all employees through online links, and displayed up-to-date guidance generated or approved by the contextual experts. A nurse working at Hospital A described:

> "Now we have a central place where we can just go look at what we're doing today. What are the updates with testing? What do I need to know today? What tubes are we using? What PPE do I need to look for? Did we change our guidelines? I think that has been really, really helpful."
>
> (RN18)

Informants expressed appreciation for having these centralizing media that removed the need for synchronicity, noting that "for staff who weren't there that particular day, they can always log on there and see what the latest update was." (Pharm5) The platforms also eliminated the need for searching through various channels to find relevant information. A physician who worked at Hospital B explained:

> "[The platform] was a very good way of putting a lot of information in a very accessible format. Before that, I remember vividly flipping around to different websites to try and get some direction and some information."
>
> (MD7)

Notably, our informants reported receiving a decreased number of emails after the implementation of these platforms. Without the aid of salient email alerts, both experts recognized that repositories would not be enough to ensure uptake of updated information by staff. Thus, centralization alone would not address both problems of delivery and uptake.

Democratization

Responding to high information demand and getting everybody on the same page called for democratization in addition to centralization. This was because even after centralized information platforms were implemented, new questions would arise when interpretations of posted information differed among staff. For instance, describing an instance of confusion regarding information on how to swab patients with COVID-19-like symptoms, one APP explained that they "had asked four different people and got four different answers." (APP6) APP6 continued by noting that they "couldn't get a straight answer until [they] got in touch with [Expert B]."

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Similarly, at Hospital A, our informants described that even though Expert A "was really great when she made [the platform], she would come in on nights and mornings" (RN2) to attend multiple daily meetings so that she could answer questions. Staff noted that "[Expert A] was burning the midnight oil at the hospital and was at every single shift report and got everyone on the same page." (RN16) Expert A explained that she was especially worried about information accessibility for "groups that had lower health literacy, but were still at risk." She was familiar with this phenomenon from her experiences during the Ebola epidemic:

> "Environmental services staff are often forgotten about, but they're one of the most important members of the team. None of us with all of our fancy equipment and techniques can do anything if the room is dirty."
>
> (Expert A)

Her foresight that individuals with lower health literacy would need more assistance with access was supported by instances of "ancillary staff" refusing to enter patient rooms because they felt "very strong fears" about the "unknown of COVID." (T/A5) A nurse working at Hospital A explained:

> "Ancillary staff didn't want to come in patient rooms. We were missing the hand that did EKGs, the hand that helped patients get dressed… The big difference was the ancillary staff didn't really understand and know the physiology as much as the nurses and doctors."
>
> (RN6)

In response, Expert A scheduled multiple group meeting sessions with medical assistants, technicians, and environmental service workers to listen and learn why rooms were not being cleaned, or why staff were not completing their patient care tasks. She learned that these ED workers felt marginalized as they felt pressured to reserve PPE for their clinical colleagues, but then responded in ways that further escalated interpersonal tension. Expert A explained:

> "Environmental services workers often get dumped on. They had people who didn't want them to wear an N95. So, there was all this strife of they weren't being given a N95, so if they got to a floor where they could get them, they would take several so that they would have them for later. And then the floors would be upset that they were hoarding. There was this kind of vicious cycle. We tried to address it by trying to work with them on what they needed, talking about how we understood COVID was transmitted, and what to do to protect yourself."
>
> (Expert A)

Democratizing, therefore, meant that the contextual experts scheduled and attended recurring face-to-face meetings, individually and in groups, with staff serving in all roles. These intentional interactions served four main purposes. First, they assisted the contextual experts in reaching staff who experienced role and knowledge-based barriers to accessing communication. Second, they enabled the contextual experts to resolve questions arising from a plurality of interpretations. Third, they provided crucial feedback such that communication on centralizing platforms could be altered based on learned barriers and

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misinterpretations. Lastly, the contextual experts could use these meetings to instill a culture of checking for updates on the platforms. Since the use of these information technologies and the context of their use were novel, and because staff were no longer sent frequent alerts through email, the experts "trained people to look at [the platform]" (Expert B) often so that they would have access to the most updated information.

Reaction to centralization and democratization

Our informants expressed gratitude for both experts' efforts to reduce uncertainty and equivocality through centralization and democratization, often using descriptors like "wonderful," (RN16) "phenomenal," (APP4), and "reassuring" (RN2) when describing the experts' actions. They explained that the processes of information delivery undertaken by contextual experts facilitated collective uptake of information which helped staff feel safer and less anxious.

> "[Expert A] really contributed extra time and effort, constant communication that helped people feel more confident. And now I don't see that anxiety going into patient care situations, especially ones that are higher risk for COVID."
>
> (MD3)

> "I think [Expert B's] literal dedication to staying up to date every single day – every day as soon as things would change, she would find a way to make it applicable to our hospital and keep us as the priority. Although obviously we always care about patients, it was the first time it was like, 'Oh, they care about us, the staff!'"
>
> (MD12)

DISCUSSION

To provide safe and high-quality care in times of crisis, healthcare organizations must effectively disseminate information across divisions, departments, and roles (Pearson & Mitroff, 1993; Vainieri et al., 2019). Our study indicates that establishing frequent and redundant communication strategies does not necessarily address the anxiety and interpersonal tension produced by uncertainty and equivocality in such contexts. We found that such communication strategies often proved overwhelming, paradoxically leading to feelings of information underload amid the obvious overload. Shared information was also perceived to be not integrated across channels. In return, informants described much of the information they received as not practically useful and lacking credibility, resulting in decreased uptake. These problems of delivery and uptake were ameliorated by the emergence of contextual experts who centralized and democratized information (Figure 1).

That centralizing information communication technologies alone were insufficient to address wide-ranging concerns at the onset of a crisis highlights how internal crisis communication can be complicated by the promises, perils, and paradoxes of the information age. For instance, information communication technologies are known to help save time through efficiency gains while accelerating the pace of life (Wajcman, 2008); increase productivity while inducing stress and addictive behaviors (Tarafdar et al., 2014); supply diverse choices

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while crippling decision-making ability (Bawden & Robinson, 2009); grant clarity while inundating with irrelevance (Edmunds & Morris, 2000); and promote responsiveness and connectivity while decreasing sensitivity and autonomy (Mazmanian et al., 2013). Moreover, each communication modality comes with unique and often paradoxical constraints and affordances (Barrett et al., 2021) which contribute to assessments of credibility (Hilligoss & Rieh, 2008). The undesired effects of such pathologies and paradoxes can be further amplified in health systems that leverage numerous information technologies to connect individuals across geographic and professional boundaries. Inability to manage such paradoxes and coordinate across these boundaries can harm patient safety, care quality, and caregiver experience (Kerrissey et al., 2022).

Although both uncertainty and equivocality are saliently experienced at the onset of crises, the perspectives offered in the organizational information processing, MRT, and leadership communication literatures have certain shortcomings which our findings address. For instance, proposed strategies of responding to information needs by MRT take a contingent 'either/or' rather than 'both/and' perspective toward uncertainty and equivocality reduction. However, MRT's prediction that managers should use decreasingly rich media to reduce equivocality fails to neglect how equivocality can be produced where work gets done. Our findings demonstrate that equivocality does not merely exist in the environment, as questions and differing interpretations can emerge amid interdependent work by differentiated workers. Moreover, what is important regarding communication is not simply that information is delivered, but that it is received, interpreted, and put to meaningful use. Recent research evaluating leadership communication suggests that employees are more likely to view leaders as under-communicating, and perceive under-communicating leaders to be less empathetic (Flynn & Lide, 2022). This finding likely explains why formal leaders in our study – and advice provided to formal leaders more generally – erred on the side of communicating frequently and redundantly.

Thus, our findings highlight the significance of examining crisis communication in healthcare organizations from the perspective of the staff receiving it, in both research and practice. Research on intraorganizational hospital communication highlights best practices such as having a communication plan, communicating compassionately, and maintaining information consistency and redundancy, while acknowledging challenges posed by alert fatigue (Liu et al., 2018). But how to manage the tension between the need for keeping everyone up-to-date while avoiding alert fatigue often remains unaddressed. Amid the major challenges burnout presents in healthcare delivery during COVID-19, attention to the experience of frontline staff and appreciation of the nuanced needs they have for information is important. Indeed, our finding aligns with recent research showing that staff who report lower communication overload and higher satisfaction with usefulness report lower burnout (Barrett et al., 2022; Sangal et al., 2021). There is great opportunity for future research on crisis and healthcare management that incorporates frontline experience and differentiates between affordances and shortcomings of unique communication strategies.

Much crisis literature has focused on leaders' role in crisis response, especially for managing communication (Bundy et al., 2017). Our findings regarding the emergence of contextual experts in communicating information effectively, however, suggest that

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leadership could be advantageously distributed more towards expertise rather than authority during healthcare crises. Such deference to expertise is a well-known principle in the high-reliability organizing literature (Weick & Sutcliffe, 2011). The recognized leaders that were discussed in interviews were not initially in positions of formal authority, but rather emerged as what we termed “contextual leaders” because of their combined expertise in both crises and the specific work setting where the crisis was taking place. This combined expertise enabled them to translate general tenets of crisis response to be appropriate and compelling for the specific EDs in which they worked. Future studies could investigate how and under what conditions such experts could be granted further authority to lead crisis response.

Our study has the following limitations. The data collected are cross-sectional and cannot speak to causal relationships. Our reliance on self-reported interview data introduces potential for recall bias. Because of COVID-19 safety considerations, we could not physically conduct observations. Our data and analysis did not consider either the content of messages or practices of dialogue, which should be considered in future studies. We could not interview patients and non-ED workers whose experience could have helped further triangulate our findings. Lastly, generalizability of our findings may be limited because our setting consisted of one umbrella organization with two operationally similar sites, although we were careful to include a diverse array of participants in interviews.

IMPLICATIONS FOR PRACTICE

Health care managers are routinely instructed to communicate frequently and redundantly when responding to crises (Holtom et al., 2020; Wu et al., 2020). Such advice implies, and often explicitly states, that there is no such thing as overcommunication. The underlying assumption is that it is better to err on the side of providing more information than to leave one’s team in the dark (Flynn & Lide, 2022). Our findings demonstrate, however, how such commonly given advice fails to account for the experience of workers in the information age. When facing high uncertainty and equivocality – especially at the earlier stages of an evolving crisis – centralization and democratization of communication are both vital, and individuals with relevant expertise, regardless of their level of formal authority, can play a key role in establishing and maintaining this kind of approach. Indeed, democratizing information could be a time and resource intensive task for a single leader. Investing in online information platforms as repositories of information and developing a culture of regularly checking for updates in a centralized place may be especially helpful in communicating efficiently. The management of these repositories, and the negotiation of information retained within them, could be delegated to a team rather than a single individual to minimize the burden. Well designed and executed organizational communication by such teams can improve coordination, reduce anxiety, and promote a safer workplace and patient care environment.

Appendix: Semi-Structured Interview Guide

- Please tell me a little about your role and background here in the ED.
- Thinking back to before Covid-19, what was it like to work here?

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  - What were the major challenges?
  - What was the best part of work for you?
  - What were communication and team dynamics like among ED personnel?
- What has been the hardest part about doing your job amid COVID-19?
- Next, I'd like to ask more specific questions about your experience with COVID-19.
  - How did your daily work and responsibilities change?
  - How, if at all, did your team change? New people/roles? New structures/processes?
  - What has communication been like in your team and the ED amid COVID-19?
  - During COVID-19, who did you look to for inspiration, purpose, and motivation? Were there any instances of leadership that stood out to you?
  - How difficult or easy has it been to learn what to do to best care for patients amid COVID-19?
  - Overall, throughout the response to COVID-19, would you say it has gotten easier or harder to work with your team?
- How much stress do you feel now, relative to a few weeks or a month ago? How about compared to before COVID-19?
  - Could you tell us a bit about what the main sources of stress have been for you?
  - Are there any things from your experience over the past few months that you think will never really "go back to normal"?
  - Are there any aspects of care during COVID-19 that you would like to see stay around, even as things begin to transition back?
- Who do you look to for guidance or inspiration as you try to understand what is coming next?

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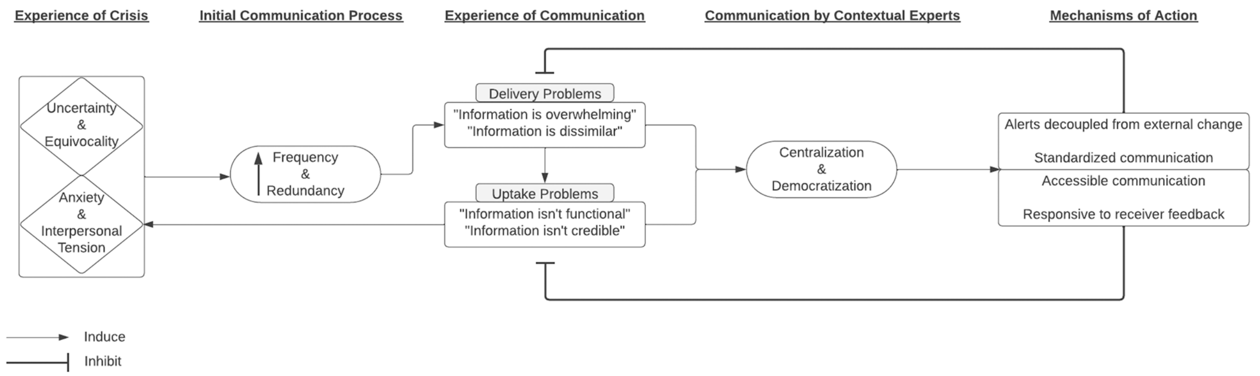

Figure 1.
Conceptual framework describing centralization & democratization

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Table 1.

Conceptual description of centralization & democratization

	Centralization	**Democratization**
Approach	Pool synthesized & standardized information in one place.	Make information – shaped by feedback – easy to access & understandable by all.
Example actions	• Unify source of communicated information. • Build and maintain online information sharing platform. • Keep information repository up to date. • Synthesize then circulate.	• Anticipate varied understanding and confusion. • Reach out and elicit feedback often. • Modify messages to fit receiver needs. • Encourage platform use.
Benefits	• Staff have a unified source to look for information. • Information received is standardized across roles & schedules. • Decreased number of alerts & mitigated alert fatigue.	• Staff know where to look for information. • Opportunity for shared information to evolve with emergent needs. • Resolved misunderstanding & improved reach of information.
Limitations	• Without frequent alerts, staff can face increased responsibility to follow along for updates. • Shared information may not answer all questions & can still be interpreted differently.	• Can be time & resource intensive, especially for a sole person without team support. • Building and sustaining relationships may be important to earn staff buy-in & trust.