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Embracing tensions throughout crises: The case of an Italian university hospital during the COVID-19 pandemic

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Background: Previous research has identified some tensions that public organizations may encounter during crises. However, there remains a scarcity of research examining how public health care organizations effectively navigate these tensions to reconcile the diverse interests, needs, and demands from various stakeholders.
Purposes: The study seeks to shed light on the dynamics underlying the tensions experienced by public hospitals during the COVID-19 pandemic. It illustrates how different hospitals' actors have navigated these tensions, identifying solutions and approaches that fostered collaborative endeavors among internal and external stakeholders.
Methodology: The study draws on qualitative analyses of 49 semistructured interviews and the notes from two focus groups involving key informants at one of the largest university hospitals in Italy. We also rely on the verbatim transcripts from meetings involving the members of the temporary emergency team constituting the taskforce.
Findings: The results highlight the tensions that emerged throughout the different waves of the COVID-19 pandemic and how various actors have managed them in a way to reconcile opposing forces while unleashing adaptability and creativity.
Practice Implications: Hospital managers would benefit from developing a paradoxical mindset for crisis preparedness, allowing them to embrace existing tensions and devise creative solutions to favor resilience and change.

Key words: COVID-19, crisis management, paradoxes, public health care, tensions

In March 2020, the COVID-19 pandemic triggered a global health crisis, forcing organizations to navigate several tensions to harmonize conflicting needs and demands, such as ensuring business continuity while safeguarding employees' health through social distancing. Public hospitals also faced additional tensions as they strived to fulfill their dual mission of fighting the virus at the forefront while continuing to provide essential care to non-COVID patients (Kooli, 2021).

To understand how public hospitals addressed the tensions arising throughout the pandemic, we conducted a study at one of Italy's largest university hospitals (hereinafter the Hospital). We focused on the decision-making processes, both centralized and decentralized, employed by the Hospital to promptly respond to the crisis and coordinate a diverse array of internal and external stakeholders and resources. We observed these processes during two waves of the pandemic—from March to May 2020 (first wave) and from November 2020 to March 2021 (second wave).

Drawing upon paradox theory (Lewis, 2000; Quinn & Cameron, 1988; Smith & Lewis, 2011), which suggests that managing tensions requires adaptive responses able to embrace opposing forces simultaneously, our study incorporated 49 semistructured interviews and two focus groups with key informants at the Hospital. Additionally, we analyzed verbatims from COVID-19 taskforce meetings to track decisions and events that tested the Hospital's capacities and operations, compelling it to balance conflicting needs and demands. Despite these challenges, the Hospital produced an effective and cohesive crisis response, evident in limited contagion clusters and the successful continuation of most ordinary activities and vital surgeries, with only two brief interruptions over 24 months. Moreover, the Hospitals, which is ranked among the Newsweek World Best Hospitals, experienced one of the smallest decreases in score between 2020 and

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2021 among the top 10 Italian hospitals, showcasing its resilience amid the crisis.

This article serves a dual purpose. First, it illustrates the tensions faced by the Hospital during the COVID-19 pandemic. Second, it explores how decision-makers navigated these tensions producing positive outcomes for the organization, including enhanced innovation, collaboration, and adaptability. By doing so, this study contributes to the literature on public health care management by revealing the interplay of competing yet complementary goals, interests, priorities, and demands that hospitals encounter during prolonged and systemic crises (cf. Head & Alford, 2015). It underscores the significance of joint efforts by internal and external actors in facilitating decentralized and synergistic actions that strengthen crisis responses. This perspective fills a gap in crisis management research within the context of public health care organizations. Previous studies on crisis management have either focused on the coordination among internal actors or, conversely, that of external stakeholders (Bundy et al., 2017). In contrast, our study emphasizes the importance of developing responses that reconcile both internal and external oppositions emerging during evolving situations.

Theoretical Background

Crisis Management in Public Organizations

Characterized by elements of surprise, ambiguity, and urgency (Pearson & Clair, 1998), crises disrupt the ordinary course of events, leading to a loss of orientation that demands quick and risky reactions. In times of crisis, established rules, routines, and existing procedures may fall short in facilitating effective decision-making (Kornberger et al., 2019). Public organizations, in particular, encounter additional hurdles compared to private entities, grappling with diverse stakeholder values, multilevel governance, and institutional complexity, all of which further hinder decision-making processes (Head & Alford, 2015).

Research has begun to explore the approaches and conditions that either weaken or bolster the capacity of public organizations to anticipate, recover from, and absorb shocks, drawing insights from past crises. Scholars have proposed an ideal model of resilient public administration characterized by decentralized structures operating within interconnected networks, employing trial-and-error policy experimentations, and fostering social learning (Duit, 2016). Resilience is also furthered by leveraging stakeholder participation, spare capacity, and diverse data sources and knowledge types for dealing with the crisis (Duit, 2016). A recent study on a collaborative vaccination program in Texas identified other resilience practices aimed at sharing knowledge across different governmental departments, gathering the needs of vulnerable populations, and promoting innovative approaches to address ongoing challenges (Rauhaus et al., 2022). Another study conducted in the aftermath of COVID-19, analyzing lessons learned from 28 countries, identified four resilience elements for health care systems, implemented through best practices aimed at reducing vulnerability, preserving system functions and resources, enhancing capacity, and activating comprehensive responses (Haldane et al., 2021).

These contributions offer valuable insights for developing resilience. However, applying lessons from previous crises to new ones presents limitations. Indeed, the temporal, geographical, and contextual differences between past events and current crises make it challenging to identify universally effective best practices. Relying solely on normative approaches to address new crises may not be ideal, as it could introduce rigidity into organizational structures and response mechanisms, overlooking the inherent complexity of unforeseen events (Deverell, 2010). To effectively manage this complexity, studies suggested that organizations must dynamically navigate the opposing forces that emerge during the crises. Comfort (2007), for instance, highlighted tensions experienced by the government during the Katrina hurricane response, including conflicts between complete and partial information disclosure, and between flexibility for local adaptation and centralized control (Comfort, 2007; see also Boin & Hart, 2010). To address these tensions, public organizations must transcend standard emergency models and develop dynamic collective responses structured around key decision points, progressively moving information and communication from individual to system levels (Comfort, 2007). Research has identified additional tensions faced by public organizations as they deal specifically with the COVID-19 crisis. These include struggles to balance local testing transparency with centralized lockdown decisions (Shand et al., 2023), oscillations between fast-track and ordinary procedures by governments (Mascio et al., 2020), and hospitals' challenges in addressing emergencies while maintaining services for non-COVID patients (Kooli, 2021).

Given these inherent tensions, extracting lessons for crisis management requires analyzing how organizational actors navigate oppositions throughout the decision-making process. This analysis goes beyond identifying prescriptive practices and critical factors for enhancing resilience (cf. Smith & Lewis, 2011). It conveys a holistic understanding of how tensions arise and develop as organizational actors make sense and respond to them, determining either positive or negative outcomes.

Paradox Theory as a Lens to Study Crisis Management

The previous section documented the tensions encountered by public organizations, stemming from conflicting goals, needs, and priorities occurring during crisis management. Complexity arises when these elements are in opposition, and yet, they necessarily coexist, manifest simultaneously, and persist over time (Smith & Lewis, 2011). Such situations lead to paradoxical tensions, where opposing elements are interdependent and mutually binding (Hahn & Knight, 2021). For example, during COVID-19, public hospitals confronted the challenge of balancing competing yet coexisting priorities, such as managing emergencies while ensuring care and safety for non-COVID patients (cf. Kooli, 2021).

Paradox theory (Lewis, 2000; Quinn & Cameron, 1988; Smith & Lewis, 2011) enables us to recognize the complementary nature of opposing concepts involved in crisis management. Complementarity implies that managing paradoxical tensions is not about favoring one concept over the other but rather finding ways to strike a balance and leverage the

synergy between the two competing poles (Lüscher & Lewis, 2008). Otherwise, organizational actors risk incurring into negative outcomes and inconsistencies. For instance, on the onset of the pandemic, many hospitals took the challenging decision of prioritizing the emergency, suspending non-COVID-related operations. However, this approach led to increased mortality among non-COVID patients due to delayed diagnoses and exacerbated resource competition in subsequent phases. Additionally, exclusively serving patients with COVID contradicts the hospitals' mission of providing care to all patients. This example underscores a limitation in the either-or approach to tensions, in which organizational actors choose one concept or pole at the expense of the other (Putnam et al., 2014). Whereas, according to paradox theory, responses capable of reconciling opposites are more likely to yield favorable outcomes for individuals and organizations (Putnam, 2015). For example, in crisis management, senior managers must balance rationality and intuition, order and chaos, transcending conventional routines to develop creative solutions for addressing unprecedented challenges (Tabesh & Vera, 2020). Consequently, organizational actors must transform their decision-making processes, moving beyond unilateral choices and embracing tensions to provide adaptive responses to dynamic scenarios. This mirrors the core tenets of adaptive system theory (Buckley, 2017), which necessitates organizations to adjust their structures, processes, and mindset in response to rapidly changing external stimuli, such as during a crisis like COVID-19.

Research has shown different strategies and approaches that organizational members can use to respond to tensions, with the aim of embracing both poles. These approaches can be categorized into two response strategies: *both-and* and *more-than* (Putnam et al., 2014). In both-and strategies, organizational actors strive to *balance* or *integrate* tensions by finding a middle ground between oppositions. Alternatively, they may *vacillate* between opposites depending on the time, place, and organizational level (Poole & Van de Ven, 1989). Actors can also adopt more-than strategies, attempting to *reframe* or *transcend* the tensions by taking them out of their context or reformulating the opposition to neutralize its salience (Putnam, 2015). They may also raise people's awareness of the opposition to promote *reflective practice* or create *third spaces*, *border zones*, and *ambiguities* as liminal sites of disruption, where people can address opposites in alternative ways (Putnam, 2015).

Investigating tensions arising throughout crisis management and the responses produced by decision-makers can help understand the oppositional nature of various goals, needs, and demands that emerge throughout a crisis, along with their complementary nature. This provides us with a ground for theorizing on how organizational actors can work through oppositions to avoid inconsistencies and help the organization fulfill its mission.

Methods

Empirical Setting

The Hospital under investigation operates in a large metropolitan area in Northern Italy, serving a community of over a million citizens. It is a research-oriented hospital, with more than 1,400 beds and about 6,000 employees. In 2020, due to the pandemic, the Hospital experienced a significant decline in the hospitalization of non-COVID patients (−20%), surgical interventions (−29%), and external outpatient checks (−16%). Reversely, there was a significant surge in the recruitment of medical doctors (+88 units), nursing, and physicians (+337 units). In response to the crisis, the Managing Director decided to set up an interorganizational taskforce including more than 40 participants. Recognizing the urgency of the situation, the taskforce convened daily during the first wave of the pandemic. These meetings served as a platform for assessing the internal landscape, fostering collaboration, and devising strategic actions to ensure the safety of patients and health care providers. Each participant played a pivotal role by presenting key metrics and insights from their respective areas of coordination, including the number of recovered patients and available beds and the status of protective equipment. During its gatherings, the group collectively formulated decisions and established clear timelines for their implementation.

Research Design

We used ex-post reconstruction methods to reveal the connections between the critical decisions, the development of the underlying tensions, and the responses to them (cf. George & Bennett, 2004; Deverell, 2010). The crisis management process was reconstructed by tracing the narratives that unfolded around pivotal decisions made by various actors in response to the evolving situation. These narratives not only facilitated the identification of tensions but also provided insights into their responses, elucidating the dynamics between them (Putnam et al., 2016).

The primary data source comprised in-depth and semi-structured interviews with key decision-makers conducted from March 2021 to January 2022, focusing on pivotal decisions, underlying decision-making processes, challenges encountered, and strategies devised. Twelve taskforce members participated in interviews conducted between March and April 2021. A second round of 30 interviews, held between May and June 2021, included individuals responsible for critical decisions in specific departments, identified with the help of first-round respondents. Seven additional interviews in January 2022 broadened the analysis to understand the Hospital's adjustments as the situation gradually returned to normalcy due to the vaccination campaign. The final sample included 49 participants (31 men and 18 women) holding different roles within the Hospital (see Supplemental Digital Content for role details, http://links.lww.com/HCMR/A150). Interviews lasted on average 1 hour, ranging from 20 to 90 minutes. Participants enrolled voluntarily without compensation. They were later invited to a seminar at the researcher's university, where key findings were presented and discussed. Complementing the interviews, two half-day focus groups were organized in July and December 2021, involving all study respondents. Each group comprised seven or eight people with mixed roles, seniorities, and responsibilities, discussing crisis management, learnings, and strategies for future preparedness. Although not recorded to encourage candid discussions, each session was overseen by one or two authors who took notes

on the main insights emerging from group discussions. Access was also granted to taskforce meeting verbatims from March 2020 to June 2021 and daily dashboards illustrating contagion evolution in the area.

For the analysis, the interviews were transcribed and combined with the observation notes from the focus groups and the taskforce meeting verbatims in the same database. The data analysis commenced by identifying centralized and decentralized decisions made to deal with the contingent situation, utilizing interviews and verbatims from taskforce meetings. The identified decisions served as units of analysis, guiding our subsequent exploration into the underlying themes of theoretical significance—specifically, the tensions encountered during decision-making processes and their responses. To accomplish this, we adopted the approach outlined below, inspired by grounded theory (Glaser & Strauss, 1967).

Initially, interview transcripts and focus group notes were analyzed using open coding to identify challenges faced by respondents during decision-making. As we delved into this phase, it became evident that most challenges stemmed from conflicting interests, priorities, and needs, revealing the push-and-pull of oppositional concepts. Drawing from Fairhurst and Putnam's (2018) conceptualization of paradoxical tensions, we grouped similar challenges, expressions of discomfort, stress, and anxiety faced by respondents into bipolar terms. These terms were progressively clustered together into similar themes, illuminating the recurring struggles experienced by decision-makers throughout the crisis. From this iterative process, eight primary tensions were identified, each encompassing opposing forces within broader categories. For example, the tension between conducting a comprehensive assessment of complex organizational needs and taking rapid action fell under the category of participation versus autocracy (cf. Figure 1).

Next, for each primary tension, we applied the response typology proposed by Putnam and colleagues (2016) to discern how decision-makers responded to them. For example, actions such as defining production lines and selecting representatives based on informal leadership qualities were categorized as part of the "more-than" approach employed by decision-makers to address the tension between participation and autocracy. Finally, we aligned tensions and responses to unravel how they interacted in a paradoxical manner, shaping the overall crisis management process and outcomes (cf. Table 1).

Results

The following sections present the main critical decisions taken by the taskforce throughout the crisis, along with the tensions experienced while making these decisions and the responses to them.

Composing the Taskforce: Participation vs. Autocracy

In February 2020, as the pandemic began, the Hospital's leadership rapidly formed a taskforce to handle critical decisions. When forming the taskforce, top managers grappled with balancing competing priorities. They sought an inclusive coalition to address diverse organizational needs and foster consensus, while also acknowledging the need for rapid decision-making, which might lean towards a more autocratic approach. This tension emerged in interviews, like the excerpt below from the Head of the technostructure, who not only acknowledged the efficiency of a smaller taskforce but also highlighted potential drawbacks due to reduced involvement:

> *[In a later stage of the crisis management process,] I have indeed seen an even leaner organization of the crisis units, resulting in faster decision-making. […] [However,] some may have felt less involved in the decision-making processes and may have perceived the management of the second phase negatively. From my point of view, during an emergency, listening to everyone's opinion is not always possible, unless we have a lot of time. So, decisions must be made…also the decision to exclude someone.*

This tension was particularly pronounced during the first wave, as the Managing Director of the Hospital concurrently held

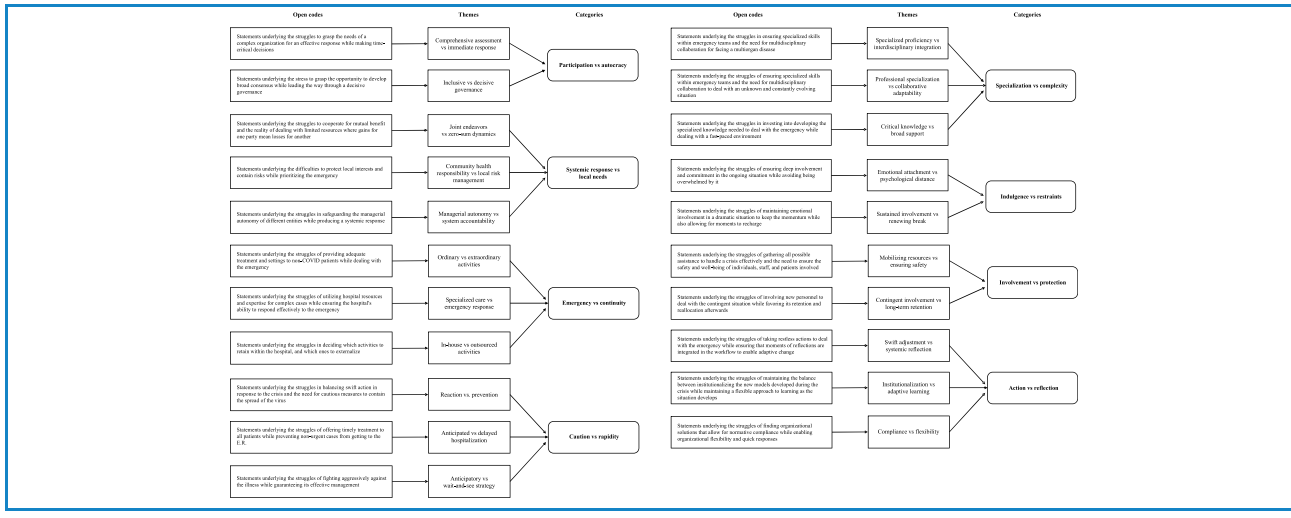

Figure 1. Data structure

TABLE 1: Results overview

Decisions	Tensions	Feeding oppositions	Responses
Composing the taskforce	Participation vs. autocracy	Ensure broad support and nuanced knowledge on local needs within a bureaucratic context while making time-critical decisions.	The top management transcended the tension by moving it into the context of the taskforce. There, rapidity, support, and informed decisions can be simultaneously achieved by leveraging informal leadership and production lines.
Allocating critical resources among internal and external structures	Systemic response vs. local needs	Ensure collaboration in a zero-sum game with scarce resources on which everyone is competing for survival.	The top management and different directors transcended the tension by embracing a network perspective for allocating critical resources. This was possible thanks to the creation of new dynamic management systems enabling transparency and connections among health care providers displaced on the territory.
Allocating resources between non-COVID and COVID patients	Emergency vs. continuity	Ensure adequate treatments and settings for non-COVID patients while dealing with the extraordinary situation brought by the emergency.	The taskforce reframed the dichotomy between ordinary and extraordinary activities around the unique set of competences and resources the Hospital has, externalizing low-complexity activities. It also extended the Hospital's operations for low-complexity cases in safe third spaces, like hotels and private clinics.
Regulating the access to the Emergency Room	Caution vs. rapidity	Enact a rapid response to the crisis along with a timely treatment of infected patients while working cautiously to contain the virus.	The taskforce created new triages as border zones in between the Hospital and its territory. The E.R. personnel set up new routines and procedures for rapidly screening all the potential COVID cases.
Composing the cross-field teams working in the COVID wards	Specialization vs. complexity	Retain specialistic competence while developing flexibility and multidisciplinarity to deal with a complex and unknown issue.	The taskforce transcended the tension by embracing a new medical paradigm based on the intensity of medical care, where specialization is no longer the central aspect of care delivery. The departments produced a case mix for balancing broad competences and specialization. The balance was also achieved thanks to the star specialists, who reframed their role becoming coaches for those without the specialistic knowledge.
Managing stress and emotions in the COVID wards	Indulgence vs. restraints	Keep people emotionally involved while allowing for moments of indulgence to detach from the dramatic situation and recharge.	The top management and the directors connected the tensions by supporting initiatives lying outside formal procedures and isolation protocols. The induced ambiguity created some spaces of indulgence amid the chaos. The staff also enacted reflective practice by using humor and lightness to highlight the opposition and embrace both poles.

(*continues*)

TABLE 1: Results overview, Continued			
Decisions	**Tensions**	**Feeding oppositions**	**Responses**
Defining engagement modalities	Involvement vs. protection	Collect all the possible help for handling the crisis while protecting individuals, staff, and patients.	The taskforce enacted a symbolic action by calling several specialists back from retirement to support the emergency team. The action prompted reflective practice by revealing the tension and showing how protection necessarily passes through the involvement of everyone with medical skills.
Systematizing the ongoingly produced knowledge	Action vs. reflection	Take restless actions to deal with the emergency while ensuring that moments of reflections are integrated in the workflow to enable adaptive change.	The directors and unit coordinators introduced new group routines that devised third spaces for reflecting amid the crisis. The taskforce also vacillated between action and reflection depending on the evolution/stage of the crisis.

the position of Head of the Metropolitan Healthcare Agency, resulting in the taskforce adopting an interorganizational setup.

To navigate the delicate balance between participation and autocracy, the Hospital's governance devised a distinctive approach. The taskforce was organized into production lines, corresponding to macro-areas such as high-intensity care, territorial concerns, surgical operations, and others. Each production line consolidated various units and departments, with a designated coordinator overseeing the entire line:

> *The adoption of the production line model had significant benefits. It reduced the communication chain between the line and the top management, facilitating rapid information exchange and the ability to make decisions outside formal taskforce meetings. An intriguing aspect was the selection of the coordinators, as they were chosen from recognized leaders in the respective areas, and not necessary among the formal heads of the area, enhancing the legitimacy of the decisions within the team. (Responsible, technostructure)*

Notably, line coordinators were not necessarily the formal heads of departments but were selected based on their informal leadership qualities, encompassing authority, credibility, legitimacy, and competence. These leaders typically possessed specialized medical skills along with managerial expertise, and they were identified through a bottom-up approach by individual departments:

> *We needed the most proactive and courageous individuals within the organization, and we entrusted them with roles of responsibility regardless of their hierarchical position within the organization. It was a winning strategy that allowed us to have at the helm the men and women who felt they could make a difference. (Managing Director)*

By employing these responses to the tension, top managers *transcended* the dichotomy between participation and autocracy. They did this by establishing diffuse leadership and integrated governance, enabling broad involvement and rapid information sharing beyond formal taskforce meetings. These contrasting forces were effectively channeled into a new dynamic within the taskforce, transcending traditional organizational roles and hierarchies. Operating within the framework of production lines, individuals collaborated both within and beyond formal structures, ensuring informed decision-making and widespread endorsement for the decisions made.

Allocating Critical Resources Among Structures: Systemic Response vs. Local Needs

Since the beginning of the pandemic, the Hospital faced the complex task of orchestrating the allocation of critical resources, including protective equipment, medicines, beds, and high-intensity care staff, both internally among its departments and externally across various entities in the territory. This created tension between the necessity of fostering collaborative efforts for systemic responses and the competition for limited resources. For example, following the first wave, as non-COVID patients returned to the Hospital, some department heads strived to keep their units "clean" of COVID-19 cases, reserving beds and personnel for non-COVID patients and mitigating the risks of virus exposure:

> *This phase was the most dramatic one due to the postponement of surgeries and the lack of shared guidelines on the selection of priority ones, initially delegated to the physicians. […] The different surgical teams were fighting over the few available resources to treat their own patients. (Director, Surgery of the Alimentary Tract)*

Even clinics faced the challenge of redefining their role as private actors within the broader public health care system. This tension sometimes led to delays in activating beds, as illustrated by the following incident that occurred between late October and early November 2020:

> *It was a sort of tug-of-war; […] they [the Local Health Authority] waited before shutting everything down,*

hoping that the accredited private facilities would provide the beds. However, this led to a crisis. There were days when a significant number of people accumulated in the E.R. without available beds for admission, remaining there for more than 24 hours. (Director, Healthcare Administration)

Managing critical resources required a systemic approach to address the rising number of infected patients, alongside redefining responsibilities. To tackle these challenges, the Hospital initiated various decentralized efforts, all aimed at overcoming this tension by embracing centralized network logics. For example, the responsibility for surgery planning, formerly under the purview of physicians, was centralized under the Health Care Directorate. This approach considered resources contributed by various stakeholders both within and outside the Hospital:

Given the scarcity of resources and our need to request them also from accredited private facilities, it was decided to centralize the scheduling of operating rooms within the Health Care Directorate. […] We planned based on waiting lists, requesting individual department heads to control surgical scheduling, not only determining the number of surgical slots but also defining criteria for their use, linking them to the waiting lists. (Health Care Director)

This initiative was supported by implementing an open system for collaborative bed management. This system facilitated the stratified allocation of available beds across different facilities in the area, encompassing both public hospitals and private clinics. It offered real-time visibility into bed availability across the metropolitan area, including details on incoming and outgoing patients and their conditions. This approach streamlined the identification of suitable care settings based on the evolving situation:

We changed the [bed management] tool, structuring the process as a single path. Now, when physicians visit the patient, they can signal in the system whether an upgrade or downgrade is needed. This real-time update enabled us to maintain a constant overview, 24/7, of our patients count and available beds. (Director, Healthcare Administration)

The capacity to transcend the dynamic interplay between systemic response and local demands, achieved through the implementation of a network-oriented approach enabled by technologies, empowered the Hospital and the other actors in the same region to coordinate a unified response and mitigate problems associated with patient allocation.

Allocating Resources Between Regular and COVID Patients: Emergency vs. Continuity

Following the first pandemic wave, where individuals sought medical care only for essential needs, the Hospital faced a surge in patients arriving in critical conditions due to delayed hospitalization. Also, the Hospital was the only structure on the territory equipped with the necessary expertise and resources for attending complex surgeries and medical cases. Consequently, specialists had to progressively realign their focus, navigating the dual responsibility of tending to non-COVID patients alongside managing the contagion and preparing for potential surges:

After the first wave, an additional challenge emerged: the resumption of routine treatments and non-COVID patients. This placed a huge pressure, not only locally but also at a regional level, on colleagues unable to perform surgeries for the regular patients, leading to a protest against the existing situation. (Head, Hospital Foundation)

During the second wave, the Hospital utilized a predictive model to foresee spikes in contagion. By March 2021, the model predicted an imminent surge, anticipating hundreds of new COVID admissions daily. This foresight exacerbated the ongoing tension between maintaining ordinary operations and handling extraordinary pressures on the Hospital, as testified by the quote below:

Many asked why we didn't plan well in advance for ward conversion, particularly given the accuracy of mathematical models predicting the second and third waves […] Some wards see an average stay of 8–9 days. Thus, adopting a weekly planning would have necessitated turning away new patients with at least one week's notice—a luxury we couldn't afford during the second and third waves, when clean patients returned to the E.R. We waited until the last possible moment to safeguard the admission and care of these clean patients. (Health Care Director)

Reflecting on the interpretation of "ordinary" and "extraordinary" within the context of a public hospital amid a health care emergency, the taskforce *reframed* the tension around the complexity of health care provision. Acknowledging the Hospital as the region's primary facility for handling complex cases such as high-intensity care and multiorgan surgeries, management chose to shift focus away from the ordinary versus extraordinary dichotomy; instead, they directed the attention to the unique organizational resources and capabilities available. The strategic decision, thus, was to retain patients with complex diagnoses in the Hospital while transferring those with lower complexities to private clinics, where the Hospital's specialists were also authorized to perform surgeries:

The objective was to keep high-complexity cases within the public sector, given its comprehensive infrastructure for managing such complexity. We temporarily delegated lower-complexity cases, sending our professionals elsewhere. Many of our professionals worked on beds that weren't theirs. (Medical Director, Infectious Diseases and Risk Service Department)

Infected patients with mild conditions were moved in COVID-19 hotels. Non-COVID patients who needed frequent therapies and postsurgery checkups, without hospitalization, were hosted in hotels to free up beds in the wards. These external facilities served as safe *third spaces* where personnel could effectively attend to both non-COVID and COVID cases with mild conditions, alleviating the strain on the Hospital's bed capacity.

Regulating the Access to the Emergency Room: Caution vs. Rapidity

Another tension arose from the interplay between the end of containing the crisis and the strategies adopted to achieve this. Initially, citizens were strongly discouraged from visiting the Hospital unless absolutely necessary. This restriction aimed to contain infections by discouraging visits for minor issues. However, as noted in the quote, this cautious approach inadvertently led infected individuals to seek hospital care only when their condition had worsened significantly, diminishing their chances of recovery and contributing to the virus's spread due to delayed hospitalization.

> *The initial directive was for everyone to "stay at home." Unfortunately, this approach caused patients reaching us in desperate conditions, often when it was already too late for optimal intervention. Then […] we adjusted our message and started say to citizens: "At the first symptoms associated with COVID, please come to the hospital immediately." (Co-Director, Healthcare Professions)*

To reconcile the seemingly contradictory demands of caution and rapidity in its response, the Hospital introduced novel triages spaces, serving as *liminal spaces* or *border zones* between the Hospital and its surrounding. These included, for instance, the "blue and green ambulatories" that were located conveniently near the emergency room (ER) facilities to provide rapid assessment for suspected COVID cases:

> *We have organized the so-called blue and green clinics, which were hospital-based or even external facilities in close proximity, where the patients arriving from the territory who did not require E.R. visits could be swabbed and clinically evaluated. In this way, we expanded the intake capacity for patients. (Responsible, Infectious Diseases and Risk Service Department)*

Also, the Hospital established a fast-track line within the ER, with a team of infectious disease specialists evaluating patients referred by general practitioners based on a priority system that considered the severity of the illness and risk factors:

> *We established a pathway for patients arriving at the E.R., directing them to a designated area called the "hot zone." This area, accessible independently via the ambulance ramp, facilitated initial evaluation by an infectious disease physician followed by a swab test conducted by a nurse from the infectious diseases department. If hospitalization was necessary, patients were directly transferred to the ward through a defined pathway. (Nurse Coordinator, Infective Diseases and Risk Service Department)*

Additionally, the ER staff implemented an innovative protocol wherein patients with a persistent fever lasting at least 2 days were promptly directed to undergo a "walk test" to detect early signs of dyspnea. The new triages and procedures created some border zones in which both the opposites could play out as the ER personnel were able to rapidly attend to suspicious cases while keeping a cautious approach.

Composing the Teams Working in COVID Wards: Specialization vs. Complexity

COVID-19 manifests as a multiorgan disease, primarily affecting the lungs and often leading to severe acute respiratory syndrome. Consequently, infectious disease specialists and personnel with high-intensity care expertise played pivotal roles in treating patients with COVID. However, acquiring these critical competencies is time-consuming, and their scarcity posed challenges during the crisis. Also, the disease's multiorgan nature necessitated involvement from various specialists to provide comprehensive care especially amid an unknown and evolving situation. A nurse coordinator in the high-intensity care unit highlighted challenges in assembling the necessary specialist skill set:

> *I was asked to assembly teams that included personnel from different units, including surgeries and operating rooms. It was a logical decision due to our shared critical area…those professionals possessed entirely different competencies. The specific skills required to work in the high-intensity unit with patients affected by the COVID, who often required prolonged assistance, were not only different competences but also rare!*

These considerations highlight the juxtaposition between the need for specialized expertise and the necessity of adopting a multidisciplinary approach to address the crisis's complexity. The Hospital *transcended* this tension by moving away from the traditional paradigm for health care delivery centered on medical specialties. Instead, it embraced a new model focused on the intensity of care. Here, the roles of medical doctors and health care providers were organized around patients and their specific medical needs, determined by the severity of their conditions. As a result, various specialists collaborated across different units, forming multidisciplinary teams that facilitated the cross-fertilization of competences. This shift enabled a more agile and responsive health care system, mobilizing expertise based on patients' actual needs, thereby transcending the limitations of traditional specialty-centric models:

> *[The need to innovate existing models] applies to everything, including care aspects and breaking down professional barriers. Nowadays, in the processes around the patient's bed, there's the demarcation*

between professions. […] While everyone possesses distinct competencies, there are overlapping areas. When professionals work in isolation without integration, the care process becomes suboptimal, that's it. (Head, Administration)

The transition to the intensity of care model revealed the Hospital's effort to *balance* specialized expertise with the necessity for a multidisciplinary approach to tackle complexity. This balance was further enabled by experienced specialists who *reframed* their role: from leading their specialization to supporting and mentoring less-experienced colleagues. These specialists provided on-the-job training directly in the wards, offering invaluable guidance to new hires and those developing crucial competencies for treating patients with COVID, leading to the "emergence of the second lines":

Creating space for the second lines marked a key event in the reorganization, greatly improving departmental functionality and fostering a sense of being valued among staff, pulling the group along. Many trainees transitioned from being those who were present throughout the day without significant responsibilities to those who were there throughout the day, alone, with responsibility. On this, they responded excellently also because they had their tutors. […] [In the COVID Hospital] They have created an interesting model promoting collaboration through shared consultations and patient care responsibilities to maximize integration. […] So, everyone knows the patients of everyone. (Director, Healthcare Administration)

This type of involvement constituted a *symbolic action* to dismantle internal barriers around medical specialties, hierarchies, and departments, refocusing the centrality on the patients and, thereby, neutralizing the salience of the tension between specialization and complexity.

Managing Stress and Emotions Throughout the Crisis: Indulgence vs. Restrains

The crisis demanded strong emotional investment from everyone, often necessitating acts of indulgence as coping mechanisms. Here, "indulgence" refers to a state of tolerance and permission allowing individuals to momentarily disconnect from the intensity of the situation to recharge. While acknowledging the value of maintaining a heightened emotional commitment during the crisis, the nurse coordinator for high-intensity care emphasized, "We shouldn't turn off passions because those have helped." However, the following quote suggests the looming risk of emotional exhaustion during the crisis, highlighting the importance of striking a balance between detachment and maintaining a heightened state of alertness to prevent complacency:

It felt like I spent a year holding my breath. Similar to diving underwater, you take a deep breath, dive down, and resurface when you can't hold it any longer. […] Now, the weight of work is starting to overwhelm me. […] This has also left me physically exhausted. I notice that as the tension lessens, fatigue sets in. I'm concerned about what will happen when everything calms down because the adrenaline rush that's keeping me going will fade. (Co-Director, Healthcare Professions)

To manage these competing emotional demands, organizational actors created "safe" places of indulgence amid the pathos, in different ways. For instance, despite implementing strict operational protocols for clean-contaminated areas interfaces, the Hospital supported some individual initiatives that diverged from guidelines, fostering closer connections between medical staff and patients. The organizational endorsement created *liminal spaces* of disruption, characterized by *ambiguity*, where health care workers could engage in acts of indulgence. Examples included arranging final goodbyes for terminal patients or facilitating family visits to expedite recovery:

We worked to allow the relatives of those in high-intensity care to come in at least once, even for a short time, to combat the loneliness. I believe this has been therapeutic, even for the personnel. (Medical Director, Infectious Diseases and Risk Service Department)

Meantime, the Hospital canteen was transformed into a *liminal place* where doctors and nurses deliberately disconnected from the dramatic events, using irony and serious playfulness to expose the tension and develop *reflective practice*.

I remember when we daydreamed about planning a trip or vacation. I recall when, on Easter day, we joked about the fact we would have traditionally spent the Monday at Albis on a trip with family and friends. Instead, we were there, joking and comforting each other when needed. We said: Tomorrow, we are going to have a nice picnic; we'll move from Pavilion 1 to Pavilion 19! Do not forget cake and picnic tablecloth. (Co-Director, Healthcare Professions)

These approaches helped the personnel to retrieve moments of indulgence amid the chaos to cope with stress, anxiety, and grief by allowing for emotional expression and fostering connections with others despite social distancing measures.

Defining Engagement Modalities: Involvement vs. Protection

An additional tension centered on the imperative to protect individuals while actively engaging them at the forefront, joining forces to fight against the virus. This tension arose from the interviews in which people revealed the difficulties in coping with fear while performing their professional duty:

I faced situations that brought me to even reconsider my professional choice. This probably happened because I fell […]. For me, the pandemic has meant […] sensing on my own skin the fear I could read in other people's eyes. (Medical Director, Infectious Diseases and Risk Service Department)

The challenge was to engage professionals in combating the pandemic while safeguarding their well-being. To reconcile these seemingly opposing objectives, the Hospital employed symbolic actions that stimulated *reflective practice*. Notably, it strategically enlisted retired specialists to bolster emergency teams, despite their vulnerability requiring additional protection through isolation. This active involvement spurred professionals to ponder the inherent tension, bridging the gap between engagement and protection. As testified in the following quote, this reflection highlighted the realization that collective protection hinged upon the engagement of all individuals with medical skills:

> *It was good to have these skilled professionals by our side, they brought the legitimacy and professionalism we needed. They were real "crowd-pullers" who helped keep the group's morale high and assisted younger colleagues. They are incredible individuals who put themselves and their families at risk just to help us, absolutely voluntarily and free of charge. (Director, Legal Medicine Department)*

Through these symbolic actions, the Hospital continually connect involvement and protection, positioning the former as a prerequisite for the latter.

Systematizing the Ongoingly Produced Knowledge: Action vs. Reflection

Integrating moments of reflection into the workflow for adaptive change amid the crisis was extremely challenging, as revealed in focus groups. Participants noted how the crisis initially sparked the creation of innovation labs, enabling experimentation with alternative approaches, methods, procedures, and tools that proved effective. However, innovation waned in the second wave as operations returned to normal and infections peaked, depleting mental and physical resources. This underscores an opposition between fostering innovation and managing regular operations. Additionally, although adaptive change is crucial for responding to ongoing and unforeseen situations, it may clash against institutionalized and standardized methods aimed at enhancing efficiency in routine situations. These methods can hinder organizational flexibility, especially given the normative and bureaucratic requirements prevalent in public health care settings, which may supersede emergency needs:

> *Relying on standardized and engineered systems is fine in normal times, but this pandemic phase, which will become endemic, has made us understand that the human aspect is fundamental. (Director, Hospital Pharmacy)*

To reconcile the opposites, a broad set of initiatives was implemented at different levels of the organization. For example, some nurse coordinators introduced new follow-up routines on daily operations that devised *third spaces* for adaptation and codification of local procedures amid the action.

> *I established a pattern in my group: to create briefs of the situations and try to codify, during our few moments of respite what we had done on a specific case and what specific procedures and drugs were adopted, noting if that procedure had a satisfactory result. [….] The next time a similar case occurred, we had a plan ready. During the second wave, we felt more reassured, as we knew how to proceed. It was as if we pulled an old scheme from a cabinet that we could apply based on the specific situation. (Nurse Coordinator, High-Intensity Care)*

In the infective disease unit, a dedicated study group made of interns was formed in the initial weeks of the pandemic. Its purpose was to systematize and disseminate newly generated knowledge about the virus. This initiative created a *liminal space* between the university and the Hospital, where study and reflection consistently informed ongoing action. Furthermore, the Hospital used the slowing-downs of the crisis to formalize and share accumulated knowledge through educational sessions and seminars, including the one organized to present findings from this study. This enabled the *vacillation* between action and reflection depending on the crisis phase. These interventions enabled the Hospital to adapt actions to the ever-evolving scenario, ensuring a dynamic response to the challenges at hand.

Discussion

This study explores the Hospital's management of the first two waves of the COVID-19 pandemic, examining the tensions encountered and the responses of decision-makers. Utilizing paradox theory (cf. Smith & Lewis, 2011; Putnam et al., 2016), the analysis uncovers opposing yet complementary goals, needs, and demands arising during crisis management. We highlight eight primary tensions and the efforts undertaken at various organizational levels to deal with them in a way to prevent inconsistencies and produce positive outcomes for the Hospital, such as enhanced learning, engagement, and adaptability, which contributed to a cohesive and effective crisis response. By doing so, this research offers three main contributions to crisis and public management literature.

First, prior studies have focused on identifying the best practices for public organizations to promote resilience by aligning internal and external factors (e.g., Duit, 2016; Haldane et al., 2021). This study suggests that effective crisis management requires more than simply selecting "best" practices based on situational contingencies. Organizations, in fact, must go beyond standard approaches and traditional decision routines and procedures to address unique existential challenges through creativity and improvisation (Tabesh & Vera, 2020). To do so, they must embrace complexity to navigate opposing forces synergistically. This is particularly pertinent for public health care organizations, which face contrasting and coexisting stakeholders' values, motives, programs, and priorities more than their private counterparts (Head & Alford, 2015). Therefore, instead of solely focusing on critical factors and best practices for resilience, it is essential to examine how public health care organizations manage competing demands simultaneously.

This leads to our second contribution, focusing on the characteristics of crisis-prepared organizations. Pearson and

Clair (1998) proposed that crisis preparedness starts with executives' awareness of an organization's vulnerability. Building on this, our study suggests that top managers and key decision-makers enhance crisis preparedness by cultivating a paradox mindset. This mindset reflects the ability to engage with paradoxes (Smith & Tushman, 2005) and being "accepting of and energized by tensions" (Miron-Spektor et al., 2018, p. 26). Our findings indicate a correlation between decision-makers' paradox mindset and effective crisis management. Additionally, the decentralized nature of some identified responses implies that if organizational leaders embrace tensions, they can catalyze the positive effects of the paradox mindset throughout the organization. Further research should explore this relationship, investigating how top managers' paradox mindset, demonstrated through their decisions, motivates employees to generate paradoxical responses to crises from the bottom up.

Finally, this study illustrates how a paradoxical approach helps address the limitations of crisis management literature, which often remains fragmented, lacks interdisciplinary integration, and operates in silos (e.g., Bundy et al. 2017). By examining tensions and responses, we can comprehensively understand crisis management and reveal how decentralized efforts collectively contribute to addressing tensions paradoxically. This approach also allows us to shed light on the interplay among individual, organizational, and environmental factors during the COVID-19 crisis, shaping the effectiveness of the Hospital's response. This interaction was visible, for instance, in how several specialists decided to attend low-complexity surgeries in external clinics, making more hospital beds available to patients with COVID during the pandemic peaks. Talking of individual factors, this study has also shown how responses are drawn not only on cognition—see the change in paradigms or the structuration of new routines—but also on affection—as evidenced by the use of humor and symbolic actions to acknowledge and embrace tensions.

Practice Implications

Crises have become the new normal, presenting significant challenges for public health care organizations, despite the proliferation of best practices for resilience. The COVID-19 pandemic epitomizes this, often catching organizations off guard with rapidly evolving situations. Our paradox perspective reveals several approaches to managing multiple tensions, interlinked through inherent contradictions. For instance, during the initial emergency phase, distributed leadership was pivotal for garnering support for timely yet informed decisions. A production line structure for taskforce operations facilitated efficient information dissemination within a lean decision-making framework. Furthermore, activating centralized network logics, especially for distributing critical resources, proved crucial, requiring extending networks beyond hospital boundaries to involve various health care stakeholders. In such a context, redefining responsibilities and accountability was imperative to avoid delays like those seen in activating beds in private clinics during the second wave. In redefining responsibilities, it is essential to acknowledge that public hospitals possess the resources and capabilities to manage complex cases internally, regardless of their "ordinary" or "extraordinary" nature. Maintaining readiness to activate network logics from the pandemic outset enabled the identification of third spaces and zones, like blue ambulatories, ensuring operational continuity while prioritizing emergencies.

As crises persist, sustaining cohesive responses becomes challenging. Coordination, centered on patients and their health care needs, can be sustained through intercompany working groups and multidisciplinary teams. These might reveal unexpected synergies and serve as a source of energy and stimuli for staff in challenging times and beyond, also providing moments of indulgence for recharging amid the crisis.

Finally, the Hospital's case illustrates how crises can spark innovation and experimentation. Seizing exceptional circumstances, the Hospital established experimental labs, allowing moments of reflection to explore innovative pathways, sometimes transcending rigid routines and bureaucratic structures. These solutions highlight the importance of fostering a paradox mindset within the organization, starting from leadership. This implies promoting, through hiring and training, a cognitive approach among the staff characterized by the ability to embrace and navigate contradictory or seemingly conflicting ideas, beliefs, or situations. Individuals with a paradox mindset are adept at recognizing and accepting that certain phenomena can simultaneously exist in opposing states or conditions. This approach enables creative problem-solving in unforeseen situations while maintaining efficiency in routine tasks.

Conclusions

Our study underscores the importance of adopting a paradox mindset in health care organizations during crises, facilitating adaptability and innovation. However, it is important to acknowledge limitations and considerations regarding our findings.

COVID-19 was a prolonged crisis with multiple waves, which gave managers the opportunity to learn from past mistakes and implement corrective measures as the crisis developed. Yet, short-term crises may not offer the same learning opportunities, potentially complicating decision-makers' ability to navigate complexity effectively. Additionally, stakeholders may resist embracing complexity through a paradoxical approach, preferring simplicity amid overwhelming circumstances. In these cases, initial either-or responses might be preferred to grasp complexities and address immediate needs while limiting cognitive overload. However, as crises progress, our research emphasizes the importance of transitioning towards more nuanced approaches. Future studies should delve deeper into these dynamics, understanding the contexts where more-than and both-and approaches may fall short in delivering effective crisis management efforts.

Our findings underscore the importance of a crisis-prepared hospital model, prioritizing medical care intensity and adopting a multidisciplinary approach to lower internal barriers. This allows the organization to leverage its unique resources and capabilities. Embedded within a territorial network and guided by a paradox mindset, the crisis-prepared hospital creates spaces for innovation and adaptability through bureaucratic features such as professional expertise, chain of command, and production lines (Pedersen & du Gay, 2021). Although one might

question the relevance of these features outside of crisis contexts, our argument remains crucial given the escalating frequency and complexity of crises. Embracing these features enables organizations to anticipate, respond to, and recover from crises effectively, ensuring their sustainability and success in an increasingly volatile world.

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