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Thygesen, Svante Aasbjerg; Krogh, Andreas Hagedorn; Lo, Christian

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Hybrid Crisis Governance: A Systematic Review of Control-Based and Collaborative Governance of the COVID-19 Pandemic

Svante Aasbjerg Thygesen[1] | Andreas Hagedorn Krogh[2] | Christian Lo[3]

[1]Centre for Societal Security and Resilience, Department of Social Sciences and Business, Roskilde University, Roskilde, Denmark | [2]Institute for Leadership and Organization, Royal Danish Defence College, Copenhagen, Denmark | [3]Faculty of Social Sciences, Nord University, Bodø, Norway

Correspondence: Svante Aasbjerg Thygesen (svaath@ruc.dk)

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ABSTRACT

Hybrid crisis governance – combining hierarchical control with networked collaboration – has gained increasing attention in the public policy and crisis management literatures. Yet, the concept of hybridity remains crude and underdefined, limiting its analytical utility. To address this gap, we conducted a systematic review of how hybrid governance was applied during the COVID-19 pandemic in Europe. Following the PRISMA 2020 guidelines, we screened 337 records and selected 20 studies for thematic synthesis. Our analysis identifies three distinct types of hybrid crisis governance: temporal, concurrent and integrative. Temporal hybridity refers to sequential shifts between control-based and collaborative modes over time. Concurrent hybridity captures the parallel coexistence of control and collaboration with limited integration. Integrative hybridity denotes the blending of control and collaboration into fused forms such as controlled collaboration or collaborative control. This typology advances conceptual clarity in both crisis management and public governance by offering a structured analytical vocabulary for hybrid crisis governance. Assessing the strengths and limitations of each type of hybridity, we argue that effective crisis governance depends on a context-sensitive capacity to recalibrate governance modes in response to shifting constraints and demands.

1 | Introduction

In recent years, public administration and policy research have been increasingly preoccupied with hybrid governance arrangements where practices belonging to competing and conflicting public governance paradigms – such as hierarchical control and networked collaboration – combine, intertwine, and co-exist (Brandsen and Karré 2021; Christensen and Lægreid 2011; Denis et al. 2015; Kanon 2023; Koppenjan 2012; Koppenjan et al. 2019; Krogh 2022; Torfing et al. 2020; Vakkuri and Johanson 2020). This growing scholarly interest has been further fueled by the rise of turbulence and creeping crises as "the new normal" of contemporary governance (Ansell et al. 2021, 2024; Boin et al. 2020), prompting inquiries into how hybrid forms of governance operate in times of crisis (Boersma et al. 2019; Boin and Lodge 2016; Capano and Toth 2024; Carstensen et al. 2023; Kapucu and Hu 2022; Kenis et al. 2019; Larsson 2017; Nowell and Steelman 2019). Lacking a shared and consistent terminology, however, the growing literature on hybrid crisis governance risks confusing rather than clarifying its meaning through vague, expansive, and inconsistent use (cf. Alvesson and Blom 2022). This has left a significant gap in our understanding of what hybrid crisis governance entails and how it unfolds, underscoring the need for elaboration to disentangle and specify the diverse hybrid practices that the growing conceptual sprawl currently obscures.

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The interplay of control and collaboration has long attracted attention in public administration and crisis management research (Ansell et al. 2010; Nowell and Steelman 2019; Wise 2006). Rooted in the Weberian bureaucracy, what we call control-based crisis management emphasizes centralized decision-making, hierarchical coordination, and horizontal specialization, enhancing decisiveness and expedient implementation but often limiting adaptability and networked collaboration (Christensen et al. 2016; Klausen 2024; 't Hart et al. 1993). By contrast, collaborative crisis management mobilizes diverse stakeholders into adaptive, scalable response systems, bolstering inter-organizational effectiveness and legitimacy but also increasing complexity in deliberative processes that can delay action (Ansell et al. 2024; Boin and Lodge 2016; Nohrstedt et al. 2018).

To reconcile the trade-offs between the two modes of crisis management, recent scholarly work has promoted hybrid approaches that aim to combine their strengths (Ansell et al. 2021, 2024). Yet, these normatively driven approaches are typically more theoretical than they are empirically anchored, offering no real vocabulary for grasping the various hybrid forms of crisis governance emerging in practice and appreciating their respective strengths *and* weaknesses as more or less effective and legitimate governance modalities.

The COVID-19 pandemic presented an unprecedented, large-scale, and multi-level crisis that required the simultaneous use of hierarchical control and networked collaboration across sectors and administrative levels, thereby offering a unique opportunity to observe how hybrid governance arrangements emerge and evolve during crises. Exploiting the extensive body of public administration and crisis management research generated during the COVID-19 pandemic, this article seeks to advance our understanding of this complex interplay. Rather than treating these approaches as mutually exclusive paradigms, we seek to unpack how they combine into hybrid governance modes in practice. To that end, we set out to answer the research question: *How do control-based and collaborative forms of governance intertwine and combine into hybrid forms of crisis governance under conditions of prolonged managerial stress and uncertainty?*

By conducting a systematic review of 20 empirical studies of crisis management during the pandemic across European contexts, we explore how hierarchical control and networked collaboration were combined in practice. More than simply mapping instances of hybridity, we develop analytical concepts capturing how hybrid arrangements manifest across cases as well as the functional logics that underpin them. By identifying the mechanisms, conditions, and recurring patterns through which hybrid crisis governance takes shape, this synthesis contributes to the conceptual clarification of hybridity in public administration and policy while offering a foundation for a more systematic vocabulary for analyzing crisis governance beyond the traditional dichotomy of control versus collaboration (cf. Auld et al. 2021; Comfort 2007; Ferlie et al. 2011; Levin et al. 2012; Quarantelli 1997).

In the remainder of the article, we first review existing research on hybrid governance within both public administration and crisis management, focusing on how control-based and collaborative approaches intersect. Second, we describe our systematic review methodology in accordance with the PRISMA 2020 guidelines (Page et al. 2021), including the applied search strategy, eligibility criteria, and method for thematic synthesis. Next, we provide an overview of the reviewed studies. Then, we present the results of the systematic review. Finally, we discuss our findings and reflect on potential avenues for future public administration and crisis management research on hybrid crisis governance.

2 | Hybridity in Crisis Governance

Hybridity is a slippery concept with inexact empirical referents (Skelcher and Smith 2015), especially pertaining to the intersection between public administration and crisis management (Hu et al. 2020; Nowell and Steelman 2019). This section presents existing research on hybrid governance, explains the differences between hierarchical control and collaborative networks, and examines how they have thus far been connected in hybrid crisis governance research.

Public administration research underscores how hierarchies fall short in addressing complex, dynamic, and "wicked" problems (Christensen and Lægreid 2007, 2011; Torfing et al. 2025). Instead, they require solutions that cut across societal sectors, administrative levels, policy domains, and jurisdictions, combining different governance mechanisms in new and innovative ways (Koppenjan et al. 2019; Vakkuri and Johanson 2020; Brandsen and Karré 2021). For instance, "lead actor networks" (Provan and Kenis 2008; Krogh 2022), "relational bureaucracy" (Gittell and Douglass 2012), or "networked bureaucracy" (Kanon 2023) involve a hybrid mix of mechanisms from both traditional public administration and new public governance (Torfing and Triantafillou 2013; Krogh and Triantafillou 2024). Such governance arrangements modify existing organizational procedures rather than introduce fundamentally new structures and methods (Koppenjan et al. 2019; Kanon 2023). Existing research on governance hybridity in public administration has thus largely conceptualized hybridity as structures mixing diverse governance mechanisms such as control and collaboration (Denis et al. 2015).

Similar to public administration research, crisis management scholarship highlights the mix of control-based management and collaboration across vertical and horizontal divides as a key manifestation of hybridity (Carayannopoulos 2017). Control-based crisis management is defined by centralized authority and decision-making, which often relies on emergency legislation, exceptional measures, and directives (Boin and 't Hart 2003; Hermann and Hermann 1982; 't Hart et al. 1993). While this mode of crisis management excels in swift decision-making and rapid crisis response, it often lacks adaptability in implementation and risks provoking intergovernmental contestation, as local actors resist, misinterpret, or disregard centralized decisions (Kapucu and Hu 2022; Pressman and Wildavsky 1984). Moreover, this approach typically relies on narrow information channels, reducing feedback flows and broad-based mobilization of resourceful actors in crisis management (Ansell et al. 2010; Boin et al. 2020; Christensen et al. 2016; Wise 2006).

Conversely, collaborative crisis management is characterized by a network-based, whole-of-government, whole-of-society approach to public problem-solving, aiming to mobilize relevant and affected stakeholders across sectors and levels to enhance

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adaptability and responsiveness (Ansell et al. 2024; Nohrstedt et al. 2018). As a multi-actor mode of collective decision-making, it depends on shared understanding, trust, leadership, and integrative platforms that bridge institutional boundaries (Boin and 't Hart 2010; Kapucu and Garayev 2011; Moynihan 2009). However, without strong leadership and shared frameworks for collective action, it risks producing "collaborative inertia" and fragmented responses as organizations compete or act independently (Boin and 't Hart 2010; Nohrstedt et al. 2018; Parker et al. 2020).

Several crisis management studies have identified hybrid governance arrangements in the form of lead actor networks integrating hierarchical authority with networked collaboration (Hermansson 2016; Van Den Oord et al. 2020). Incident Command Systems provide another example of hybridity that temporarily centralizes authority to coordinate multiple organizations through functional modules (Moynihan 2009; Nowell and Steelman 2019). Finally, studies suggest that core–periphery structures can balance hierarchical control with distributed collaboration more effectively than fully centralized arrangements (Kenis et al. 2019; Nowell et al. 2018).

While most accounts of hybrid crisis governance emphasize the strengths of mixing diverse approaches, some studies also identify severe limitations. Centralization can collapse under excessive demands while modular task separation increases the risk of inconsistent implementation across organizations (Buck et al. 2006; Comfort 2007; Jensen and Thompson 2016). By the same token, networked crisis response can lack sufficient coordination with public policies, emergency management plans, and hierarchical governance structures (Kapucu and Hu 2022). However, these empirical insights into hybrid crisis governance have not yet been integrated into conceptual development. As a result, the concept of hybrid crisis governance remains a crude theoretical signifier rather than a nuanced analytical concept capable of capturing how actors negotiate control and collaboration under conditions of uncertainty.

3 | Methods

To examine how control-based and collaborative forms of governance intertwine and combine into hybrid forms of crisis governance under conditions of prolonged managerial stress and uncertainty, we conducted a systematic review of public administration and crisis management research related to the COVID-19 pandemic. This section presents the systematic process and methods deployed to identify and analyze relevant studies.

3.1 | Search Terms and Strategy

Research on the governance of the COVID-19 pandemic is spread across a range of disciplinary fields and theoretical traditions that apply different conceptual frameworks. Due to the absence of a universally agreed-upon terminology for studying hybrid crisis governance, the development of search terms necessarily entailed an iterative process of experimentation and modification of search terms in order to achieve both comprehensiveness and relevance (Kugley et al. 2017, 23).

After performing a number of searches using various delineations, we derived four strands of search terms for capturing studies examining hybrid crisis governance that combine hierarchical forms of government with collaborative forms of governance (see Appendix S1 for the complete search string). First, our search string included *COVID-19 OR SARS-CoV-2 OR corona* to identify studies addressing the pandemic. Second, we included the search terms *manag* OR govern* OR lead* OR administrat** to ensure that the result included an emphasis on the management, governance, leadership, and/or administration of the pandemic. Third, we added the search terms *state* OR government* OR department* OR agenc* OR public* to narrow the search to public governance of the crisis. Finally, we used the search terms *collaborat* OR cooperat* OR coordinat** to identify studies that included a focus on at least some degree of collaboration, a core feature of all forms of hybrid crisis governance, encompassing processes such as information and knowledge sharing, harmonizing actions, and joint decision-making (Martin et al. 2016).

We conducted the search in Web of Science and Scopus on March 1, 2024, in public administration and crisis management journals to ensure a clear governance perspective, deliberately excluding health-related and other sector-specific journals. To focus our search on high-quality research, we limited our search to first- and second-tier journals in the Web of Science social science subcategory of *Public Administration*. In addition, we screened previous crisis management literature reviews (Kapucu and Hu 2022; Nohrstedt et al. 2018; Wolbers et al. 2021) to identify relevant crisis management journals, resulting in a total journal search pool of 28 public administration journals and 14 crisis management journals. The search resulted in the identification of 337 unique records published in 24 public administration journals and 130 studies published in 14 crisis management journals.

3.2 | Eligibility Criteria and Selection Process

Next, we screened the titles and abstracts of the identified records to determine their relevance, leading to the exclusion of 281 reports. The remaining 56 reports were read in full, leading to the final inclusion of 20 studies published in 10 different journals. Table 1 shows the journal distribution of the included studies.

During screening and full-text review, reports were assessed based on three eligibility criteria. First, we only included reports of original empirical research on the crisis management of the pandemic, thereby excluding purely theoretical and conceptual contributions (e.g., Ansell et al. 2021), literature reviews (e.g., Scognamiglio et al. 2023), and studies that merely treated the pandemic as a contextual condition (e.g., FitzGerald et al. 2023; Parrado and Galli 2021). Second, we only included studies that focus on how governments manage crises at the central government level or across different levels of government (e.g., national, regional, and local authorities), however, central government level had to be included. We thereby excluded studies that solely examine specific and often service-related aspects of public management at the level of local or regional government (e.g., Antonsen et al. 2023; Bentzen and Torfing 2023). Third, to construct a manageable and comparable pool of studies, we only

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included studies on crisis management of the pandemic in European states, thus excluding studies in non-European contexts (e.g., Kapucu and Hu 2022; Kettl 2020), in order to achieve relative comparability in the development of the pandemic.

The eligibility criteria limit the empirical generalizability of the results. However, we accept this limitation since we pursue an analytical interest in the mechanisms of hybrid crisis governance that enables conceptual innovation (Thomas and Harden 2008). Conversely, we do not intend to make empirical claims on the prevalence of specific forms of hybrid governance on a global, European, or national scale.

TABLE 1 | Journal distribution of studies.

Journal	Number of studies
Local Government Studies	6
European Policy Analysis	3
Journal of Contingencies and Crisis Management	3
International Review of Administrative Sciences	2
Policy And Society	1
Public Administration Review	1
International Journal of Public Administration	1
Regulation and Governance	1
Journal of Comparative Policy Analysis: Research and Practice	1
Journal of European Public Policy	1

All three authors screened all the identified records, and during full-text reading, all reports were read by at least two authors. When doubts or disagreements arose on the inclusion or exclusion of a given record, all authors read the full report and discussed the matter until agreement was reached. Figure 1 illustrates the steps applied in the process.

3.3 | Mapping and Analysis

To produce an overview of the key methodological characteristics and empirical coverage of the included studies, we performed a full text read of the included reports and categorized the studies along a number of generic parameters, including their research design, data collection methods, and empirical coverage in terms of country cases, societal sectors, and time span (see Appendix S1 for the full coding scheme). Based on the categorization, we produced distribution charts to visualize the profile of the studies selected for review (presented in Section 4 below).

Having mapped the studies, we then proceeded to produce a thematic synthesis of the included studies using NVivo. As described by Thomas and Harden (2008), the thematic synthesis goes beyond summarizing results from primary studies by adding an interpretative stage in which the reviewer develops new interpretative constructs. Nonetheless, thematic synthesis should remain empirically faithful to the primary studies, and a key task in developing synthesis is recognizing key concepts across different studies that may not express the same phenomena with identical words. The thematic synthesis thus allowed us to include primary studies that do not directly address our review questions and identify similar patterns of

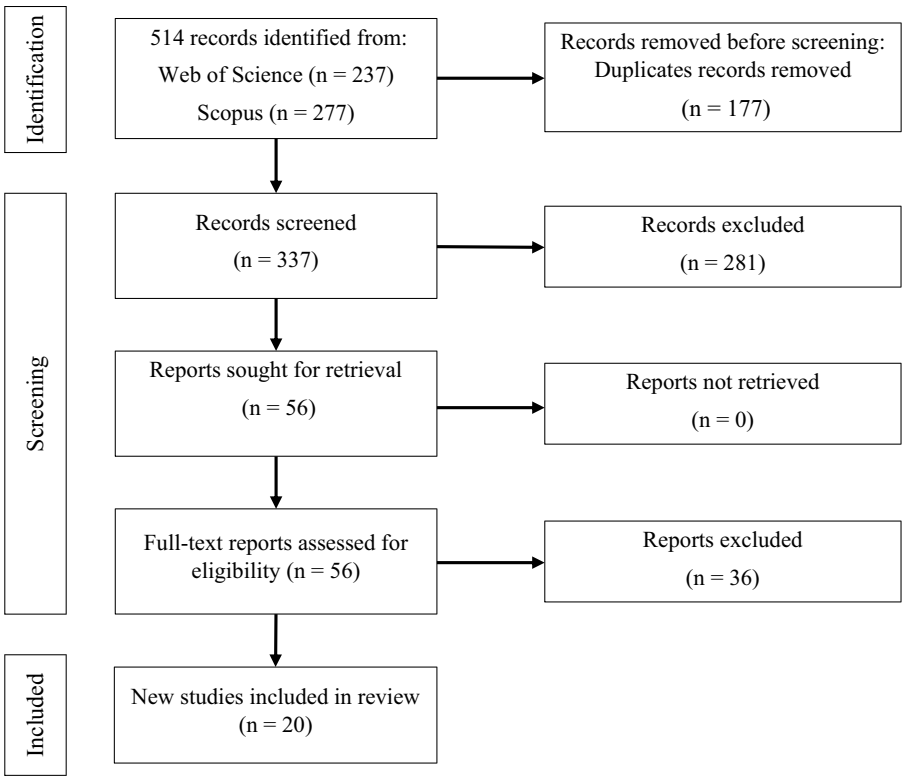

FIGURE 1 | PRISMA flow diagram.

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hybridity across studies that use different analytical frameworks.

Thomas and Harden (2008) describe the development of thematic stages as a three-stage process: coding text, developing descriptive themes, and generating analytical themes, with occasional overlap between stages. Similarly, we first conducted line-by-line coding of the selected studies, including empirical scope, substantive focus, and methodological approaches. Guided by descriptions of governance arrangements in the existing literature presented in Section 2 (Brandsen and Karré 2021; Christensen and Lægreid 2011; Denis et al. 2015; Kanon 2023; Koppenjan 2012; Koppenjan et al. 2019; Krogh 2022; Torfing et al. 2020; Vakkuri and Johanson 2020), we identified descriptions of management structures that combined collaborative and control-based crisis management. Second, we grouped these codes into descriptive themes that captured recurring patterns of hybridity. Based on these descriptive themes, we generated analytical themes distinguishing three types of hybrid crisis governance – temporal, concurrent, and integrative – through an iterative process of coding and refinement. This third step involved revisiting and adjusting the emerging analytical themes until they were sufficiently abstract to encompass all the diverse descriptions of management structures identified across the studies (see Appendix S1 for coding schemes). To increase the validity and reliability of the coding process, two of the authors coded each study separately, compared their coding results, and discussed any discrepancies to arrive at a commonly agreed interpretation.

4 | Profile of the Selected Studies

Our mapping of the selected reports shows the empirical coverage of the studies in terms of their geopolitical focus, sectoral scope, study timeframe, research design, and empirical data material. Based on existing geo-political categorizations of European states (Lynggaard et al. 2023), Figure 2A displays the regional distribution of the studies, showing a slight imbalance towards the North-Western European states. Figure 2B shows that a vast majority of the studies focus on public sector actors only, while a few also include private sector and third sector actors. Figure 2C shows that most studies examine the initial crisis response in the first months of the pandemic, while only a few examine the developments in management strategies beyond the first year. By implication, our review primarily covers public crisis governance in the early phase of the immediate crisis. This temporal focus shapes the observed hybrid governance and limits our understanding of longer-term change.

When it comes to methodology, we find a relatively even distribution between single-case studies and comparative research designs (cf. Figure 2D). Out of the nine comparative studies, six compare within the regional groupings while three compare across groupings (cf. Figure 2A). As Figure 2E shows, all studies conduct document analysis of policy documents and reports, half of the studies rely on news articles, while only six studies make use of qualitative research interviews. The strong reliance on written material and desktop research indicates limited access to research for central decision-makers and decision-making arenas during the pandemic.

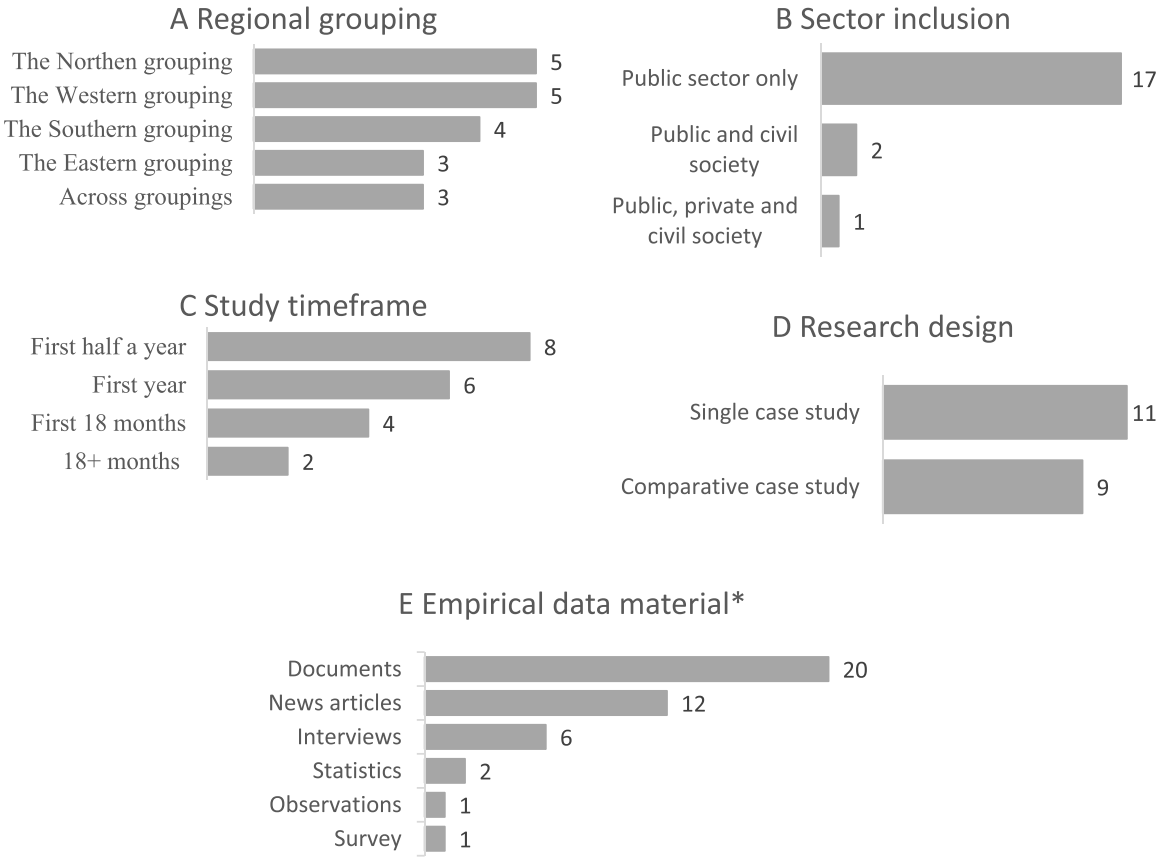

FIGURE 2 | (A–E) Distribution charts. *Each report may feature more than once in the chart.

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Accordingly, the limitations of document analysis largely bind the results of our review.

5 | Results

During the initial phase of thematic synthesis, we conducted coding of findings from the 20 empirical studies, focusing on segments that described practices, mechanisms, and conditions of both collaborative and control-based crisis management. It quickly became evident that hybrid crisis governance arrangements did not manifest uniformly. Instead, distinct patterns of interaction between control-based and collaborative governance began to surface. Building on these descriptive themes, we developed a set of analytical themes that enabled us to conceptualize three distinct types of hybrid crisis governance. Each type reflects a particular configuration of governance logic and interaction between control and collaboration during crises.

First, *temporal hybridity* denotes how crisis response oscillates between different modes of public governance over time. For example, this type of hybridity captures instances where governments exerted strong centralized control to manage the immediate onset of a crisis and then pursued collaborative governance strategies as the crisis continued into periods of lower infection rates. Second, *concurrent hybridity* manifests when different modes of public governance co-exist in parallel to each other but with limited connections between them. For instance, when central governments issued nationwide lockdowns and restrictions while local governments engaged with private companies and civil society organizations in collaborative crisis management arrangements. Third, *integrative hybridity* captures processes by which control and collaboration merge within governance crossbreeds. One sub-form of integrative hybridity is what we term *controlled collaboration*, occurring when a central authority mandates collaboration and/or defines the goals, scope, tasks, responsibilities, composition, or institutional procedures of a network. Another sub-form of integrative hybridity, which we denote *collaborative control*, arises when multiple actors co-develop and co-manage control-based crisis management initiatives across hierarchies.

All the included articles illustrated one or more of these three types of hybridity; however, they often co-existed in practice, whereby any distinction between them is purely analytical. To guide the analysis, we organized the findings around the three forms of hybridity – temporal, concurrent, and integrative. These serve as analytical categories for interpreting how control and collaboration intersect across the reviewed studies. Accordingly, the following sections do not aim to provide an exhaustive account of pandemic crisis management across European countries but instead illustrate how existing studies, when viewed through our analytical lens, reveal distinct manifestations of hybridity as identified through our thematic synthesis of the literature. Table 2 displays an overview of the studies addressing the various forms of hybrid crisis governance. In the following sections, we unfold and exemplify each type of hybridity with examples from the included studies.

5.1 | Temporal Hybridity

Temporal hybridity refers to the sequential use of control-based and collaborative governance. As Table 2 shows, 14 of the 20

TABLE 2 | Reports of hybrid governance.

Type of hybridity	Study reports
Temporal hybridity: Cases where control-based and collaborative crisis management are applied in different phases of crisis management	Askim and Bergström (2022); Bortkevičiūtė (2024); Boswell et al. (2021); Casula and Pazos-Vidal (2021); Du Boys et al. (2022); Jüptner and Klimovský (2022); Kuhlmann et al. (2021); Kuhlmann and Franzke (2022); Mattei and Del Pino (2021); Mavrot and Sager (2024); Nakrošis and Bortkevičiūtė (2022); Navarro and Velasco (2022); Pierre (2020); Royo (2020)
Concurrent hybridity: Cases where different modes of crisis management co-exist at the same time horizontally between sectors and/or vertically between different levels of government	Askim and Bergström (2022); Christensen et al. (2023); Christensen and Lægreid (2020); Diamond and Laffin (2022); Du Boys et al. (2022); Jüptner and Klimovský (2022); Kuhlmann and Franzke (2022); Navarro and Velasco (2022); Pattyn et al. (2021)
Integrative hybridity	
Controlled collaboration: Cases where the central government mandates governance networks with a specific purpose of managing the crisis through, delineating their role, tasks and responsibilities	Askim and Bergström (2022); Bortkevičiūtė (2024); Boswell et al. (2021); Christensen et al. (2023); Christensen and Lægreid (2020); Jüptner and Klimovský (2022); Kuhlmann and Franzke (2022); Kurzer and Ornston (2023); Mavrot and Sager (2024); Nakrošis and Bortkevičiūtė (2022); Navarro and Velasco (2022); Pattyn et al. (2021); Pierre (2020)
Collaborative control: Cases of collaboration in hierarchical chains of command where central government and local government co-develop and co-manage control-based crisis management initiatives	Aasland and Braut (2023); Bortkevičiūtė (2024); Casula and Pazos-Vidal (2021); Jüptner and Klimovský (2022); Kuhlmann et al. (2021); Kuhlmann and Franzke (2022); Nakrošis and Bortkevičiūtė (2022); Navarro and Velasco (2022)

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reviewed studies identify this pattern. Initial responses in many European countries emphasized collaborative and decentralized approaches (Kuhlmann and Franzke 2022; Navarro and Velasco 2022), but as infection rates rose, governments often applied centralized, control-based management. In Denmark, for instance, the Danish Prime Minister's Office imposed early restrictive lockdowns and centralized control when the virus spread was not contained through the usual collaborative crisis organization (Boswell et al. 2021). Although central governments largely directed these transitions, studies also point to temporal hybridity where sequential shifts between control-based and collaborative crisis management arose from limited governability, decentralized governance systems, and intergovernmental contestation. For example, assertive local initiatives prompted efforts to reassert central authority in Norway (Askim and Bergström 2022), whereas in Spain, local demands for more deliberation led to greater decentralization (Mattei and Del Pino 2021).

To support centralized crisis management, several studies point out that many states enacted emergency legislation expanding executive powers, including centralized states such as France (Du Boys et al. 2022; Kuhlmann et al. 2021), federal states such as Germany (Kuhlmann et al. 2021; Kuhlmann and Franzke 2022), quasi-federal states such as Spain and Italy (Casula and Pazos-Vidal 2021; Mattei and Del Pino 2021; Navarro and Velasco 2022), and countries with more decentralized government structures such as Norway and Sweden (Askim and Bergström 2022; Pierre 2020). These studies show that subsequent phases saw a gradual reopening and increased engagement with NGOs, regional and local actors, though central governments often retained oversight of the transitions by ensuring that the repeal of restrictions relied on centrally established criteria such as low infection numbers (Boswell et al. 2021; Casula and Pazos-Vidal 2021; Royo 2020). However, reimpositions of control-based measures often followed renewed surges in infection rates, illustrating the cyclical nature of temporal hybridity.

The reviewed studies identify several advantages of temporal hybridity. Some studies found that it enhanced managerial adaptability and iterative learning (Bortkevičiūtė 2024; Casula and Pazos-Vidal 2021), facilitate agile responses to changing levels of urgency (Boswell et al. 2021; Royo 2020), and enabled governments to set strategic direction before broader decentralization (Du Boys et al. 2022; Navarro and Velasco 2022). However, the included studies also show that challenges were evident. First, shifting governance modes produced inconsistencies, blurred responsibilities, and heightened uncertainty (Du Boys et al. 2022; Kuhlmann and Franzke 2022). Second, it disrupted intra-crisis learning by replacing key actors and inhibiting critical know-how capitalization (Mavrot and Sager 2024; Nakrošis and Bortkevičiūtė 2022). Third, crisis control measures often persisted beyond their initial purpose, raising concerns about lasting changes in the distribution of power, more fundamentally altering the mode of public governance and management beyond the management of a particular crisis (Kuhlmann et al. 2021; Kuhlmann and Franzke 2022; Navarro and Velasco 2022).

5.2 | Concurrent Hybridity

Concurrent hybridity refers to the parallel co-existence of control-based and collaborative crisis management. Nine of the reviewed studies reveal this pattern. In several of these cases, public executives fostered concurrent hybridity through strategic decision-making. In Norway, for example, the central government assigned the Directorate of Health extensive control over the health sector while promoting local autonomy and collaboration in other areas (Askim and Bergström 2022; Christensen and Lægreid 2020). Similar dual approaches were found in Germany (Kuhlmann and Franzke 2022). As seen in Norway, Slovakia, France, and Germany, concurrent hybridity also materialized across government levels with national authorities imposing control-based measures while local governments engaged in collaborative networks (Askim and Bergström 2022; Du Boys et al. 2022; Jüptner and Klimovský 2022; Kuhlmann and Franzke 2022).

Beyond strategic choice, the studies show that concurrent hybridity was found to arise from operational voids and limited governability, where local collaborative initiatives often compensated for the shortcomings or limited legitimacy of centralized strategies. In France, for example, an undergrowth of horizontal and informal collaborations between local actors continued to sprout despite attempts at national centralization (Du Boys et al. 2022), while in the Czech Republic, local dissatisfaction with central crisis management spurred local horizontal collaboration (Jüptner and Klimovský 2022). These examples suggest that hybridity emerged not only as a strategic design but as a functional response to uneven administrative capacities and legitimacy across governance levels, with some municipalities complying with centralized directives while others adapted solutions locally (Diamond and Laffin 2022; Jüptner and Klimovský 2022). Thus, we find indicators that uneven capacities produced concurrent hybridity where stronger actors were able to exercise discretion and develop local partnerships, while weaker ones adhered more strictly to central directives, thereby balancing control and collaboration within a national governance framework.

In the reviewed studies, we find that concurrent hybridity had the capacity to enable adaptable, locally sensitive, and innovative crisis responses in resourceful municipalities under overarching centralized strategies (Askim and Bergström 2022; Du Boys et al. 2022; Jüptner and Klimovský 2022). However, several studies also found associated coordination challenges, tensions, and conflicts arising across levels of government and local jurisdictions (Navarro and Velasco 2022; Pattyn et al. 2021). In Norway, for instance, local bylaws to quarantine travelers from neighboring municipalities created intermunicipal conflicts within the national governance framework (Askim and Bergström 2022; Christensen and Lægreid 2020).

5.3 | Integrative Hybridity

Integrative hybridity refers to the merging of control-based and collaborative governance, including controlled collaboration, where authorities mandate and direct collaboration, and collaborative control, in which actors jointly develop and manage control-based initiatives across hierarchical divides. The reviewed studies reveal both mechanisms during the pandemic.

Controlled collaboration was found in Lithuania, where the Prime Minister's Office and relevant ministries convened networks of healthcare organizations and NGOs to manage patient

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flows and vaccination strategies (Bortkevičiūtė 2024; Nakrošis and Bortkevičiūtė 2022). Likewise, in Denmark, the Ministry of Justice and the National Police directed public-private crisis groups to bolster supply chains and establish test strategies (Boswell et al. 2021; Christensen et al. 2023; Kurzer and Ornston 2023). Similar models emerged in Sweden, where the National Board of Health and Welfare coordinated protective equipment distribution across regional and municipal levels (Askim and Bergström 2022; Pierre 2020), and in Norway, Germany, and Spain, where health authorities steered decentralized health sector responses (Askim and Bergström 2022; Kuhlmann and Franzke 2022; Navarro and Velasco 2022).

Instances of collaborative control were less prevalent in the reviewed studies, yet some instructive examples do appear. In Slovakia, subnational governments were invited to propose control measures for national adoption (Jüptner and Klimovský 2022), while in Spain, central and regional authorities jointly agreed on control-based strategies (Navarro and Velasco 2022). Lithuania's Prime Minister's Office also involved NGOs in developing centralized crisis management mechanisms (Bortkevičiūtė 2024). In Belgium, Finland, Iceland, and Norway, ad hoc collaborations developed "in the shadow of hierarchy" before formalization (Askim and Bergström 2022; Boswell et al. 2021; Christensen et al. 2023; Pattyn et al. 2021). For instance, flexible governance structures in Iceland mobilized ministries, health institutions, researchers, and private companies to secure essential supplies, while in Germany, Länder-led initiatives were harmonized into a national framework (Kuhlmann et al. 2021). However, such organic emergence of integrative hybridity was relatively rare.

Across the studies, we find that controlled collaboration enables swift, adaptable crisis management, minimizing gaps between strategic oversight and operational execution (Askim and Bergström 2022; Christensen et al. 2023). At the same time, studies illustrate that forms of what we term collaborative control aided the upscaling and dissemination of proven solutions (Jüptner and Klimovský 2022; Kuhlmann et al. 2021). Nevertheless, several challenges were also identified. Controlled collaboration was found to co-exist with politicized crisis management that sidelined expert advice in favor of political priorities. This was most clearly seen in Denmark (Boswell et al. 2021), but similar patterns were also observed in Finland, the Czech Republic, and Slovakia (Christensen et al. 2023; Jüptner and Klimovský 2022). As for collaborative control, some intergovernmental forums were used for top-down communication instead of genuine collaboration (Navarro and Velasco 2022), whereas command-and-control measures introduced inertia and muted deliberation (Pierre 2020). Moreover, low trust between government levels was found to undermine integrative efforts by which subnational actors contested or circumvented national crisis management strategies (Aasland and Braut 2023; Askim and Bergström 2022; Bortkevičiūtė 2024; Mattei and Del Pino 2021; Mavrot and Sager 2024; Navarro and Velasco 2022), resulting in fragmented, heterogeneous, and uncoordinated responses (Jüptner and Klimovský 2022; Mavrot and Sager 2024).

6 | Discussion

This review set out to develop a more nuanced vocabulary for analyzing hybrid crisis governance. Through a thematic synthesis of 20 empirical studies of crisis governance during the COVID-19 pandemic, we have conceptualized three distinct forms of hybrid crisis governance – temporal, concurrent, and integrative. Temporal hybridity refers to sequential shifts between control-based and collaborative modes over time. Concurrent hybridity captures the parallel coexistence of control and collaboration with limited integration. Integrative hybridity denotes the blending of control and collaboration into fused forms such as controlled collaboration or collaborative control. This novel, meso-level typology advances conceptual clarity in both crisis management and public governance by offering a structured analytical vocabulary that goes beyond the crude notion of governance hybridity.

While previous conceptualizations of "lead actor networks" (Provan and Kenis 2008), "relational bureaucracy" (Gittell and Douglass 2012), and "networked bureaucracy" (Kanon 2023) have captured important aspects of what we have labeled "integrative hybridity," the public administration literature has not offered a coherent set of concepts for also analyzing the temporal and concurrent forms of hybridity identified in our review. Conversely, crisis and disaster management studies have previously examined empirical manifestation of what we call "temporal hybridity" (Nowell and Steelman 2019), "concurrent hybridity" (Kenis et al. 2019; Nowell et al. 2018), and "integrative hybridity" (Hermansson 2016; Van Den Oord et al. 2020), but without offering a coherent vocabulary for distinguishing between these various forms of hybridity. Apart from contributing conceptual tools for greater analytical clarity, the developed terminology advances the literature on hybrid crisis governance in three significant ways.

First, the review shows how governance hybridity may emerge from dynamic shifts in governance responses over time. While much public administration literature treats hybridity as a response to complex, yet relatively stable governance problems (Koppenjan et al. 2019; Lægreid and Rykkja 2015; Vakkuri and Johanson 2020), our review highlights how hybrid governance can also evolve in response to rapidly changing political, social, and economic conditions. Crisis management research has long emphasized the importance of changing governance modes across phases of mitigation, preparedness, response, and recovery (Kuipers and Welsh 2017; Wolbers et al. 2021). However, our findings challenge the assumptions of both strategic control and linear progression inherent in many phase models, suggesting instead that temporal hybridity may also appear as an emergent, non-linear phenomenon shaped by contestation and constraints.

Second, multilevel governance systems frequently involve spatial differentiation between governance modes – such as hierarchical control measures at a central level co-existing with collaboration at a local level – but this concurrent hybridity has received limited attention in crisis studies. As shown in Section 2, the literature on incident command systems has acknowledged similar forms of concurrent hybridity (Bigley and Roberts 2001; Moynihan 2009; Nowell and Steelman 2019) but has largely overlooked how different governance modes coexist and potentially clash across institutional levels. Our findings suggest that concurrent hybridity can arise from operational voids and limited governability and that this form of hybridity is sometimes associated with coordination challenges, tensions, and conflicts between levels of government and local jurisdictions. Based on this observation, future studies could examine the necessary and sufficient conditions for

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developing productive forms of concurrent hybridity in crisis governance.

Third, our findings shed light on the strengths and limitations of integrating hierarchical control with networked collaboration – what we call integrative hybridity. While prior research has emphasized the benefits of lead actor networks in crisis, disaster, and emergency management (Hermansson 2016; Kenis et al. 2019; Moynihan 2009; Nohrstedt et al. 2018), our review shows that such arrangements not only enable swift, adaptable crisis management but can also serve as an instrument for politicized crisis management that sidelines expert advice in favor of political priorities. Consequently, our findings support calls for more critical and interpretive approaches to the analysis of crisis governance (Krogh and Lo 2025).

Across the different types of governance hybridity, our review contributes to broader debates on governability and crisis governance capacity (Ansell et al. 2024; Boersma et al. 2021; Boin et al. 2013). While some governments demonstrated the ability to set a clear strategic course and govern effectively throughout the pandemic, others struggled with operational voids and incoherent governance mixes. Our findings suggest that while deliberate strategy remains important, effective hybrid governance under crisis conditions requires a context-sensitive capacity to adapt governance forms to shifting constraints and demands (cf. Eriksson and McConnell 2011; Quarantelli 1997; Rosenthal et al. 2001).

7 | Conclusion

In recent research, the concept of hybrid governance has served to emphasize the advantages of strategies that combine control-based and collaborative aspects of public administration and policy during crises. Nonetheless, hybrid governance is a fragmented field without a common language, making it important to clarify the concept to better identify the different practices it involves. This article contributes to closing that gap by offering a typology that distinguishes between temporal, concurrent, and integrative hybridity, each capturing different configurations of control-based and collaborative crisis governance.

Our review shows how hybrid governance is not always an outcome of deliberate strategy but also emerges from shifting crisis dynamics and limited governance capacity. This insight challenges the assumption of rational design and underscores the importance of understanding hybridity as both an adaptive strategy and an unintended consequence of governance under pressure.

In addition to these conceptual contributions, our review study indicates several methodological and empirical blind spots in the literature. Most significantly, a majority of the reviewed studies rely on desktop research, and only a few studies include first-hand accounts of political and administrative processes as they unfolded during the pandemic. In addition, most of the included studies adopt a largely state-centered view and only a few studies examine cross-sector interactions between public and private actors, thereby limiting insights into the actual processes and multi-actor dynamics that shape hybrid crisis governance. The lack of in-depth, processual accounts, especially from non-state actors, represents a missed opportunity to fully grasp how hybrid crisis governance operates in practice.

Future research could build on our findings in three ways. First, there is a need for further typological and conceptual development through empirical examinations of hybrid governance in times of crisis. While this article has attempted to nuance hybridity and make it both tangible and analytically useful, it is but a stepping stone for further conceptual development. Second, future research could study market-based governance as a third mode alongside hierarchy and networks. Adding competitive market mechanisms to the mix may alter the dynamics of the various forms of hybridity while producing new forms of hybridity and governance dilemmas. Third, future studies could examine how the various forms of hybrid governance intertwine and co-evolve in practice. In our review, we separated temporal, concurrent, and integrative hybridity analytically, but they often blend and overlap in real-world settings. Understanding these interlinkages could be an important next step for research on hybrid crisis governance.

By offering a conceptual vocabulary and typology for analyzing hybrid crisis governance, we hope this study will serve as a foundation for further theoretical development and empirical investigation. As crises grow in complexity and frequency, understanding the multiple faces of hybridity will be essential for designing robust, resilient, and legitimate governance systems.

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Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The authors have nothing to report.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section.
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