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Competing institutional logics in hospital management during the COVID-19 pandemic – lessons for the future

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ABSTRACT

Hospitals had to adapt quickly when the COVID-19 pandemic broke out in January 2020. This article analyses the organisation of the crisis management efforts of Oslo University Hospital (OUH). The analysis is based on theories that organising is a process of sensemaking, especially in the face of unexpected events. Crises stress test organisations and can highlight important decision patterns and otherwise hidden underlying logics. Theories of emergency and crisis management distinguish between anticipation and resilience. In the analyses of the OUH case, two different emergency logics, planned and ad hoc was identified. The different logics create tension in priorities and the choice of problems and solutions during the pandemic. The analysis was based on 19 in-depth interviews that took place in three clinics at OUH between December 2020 and November 2021, as well as internal audits and documents from OUH and published works. The analysis of OUH show that the resilient, ad hoc emergency logic was mostly present in the first phase of the pandemic and allowed flexibility and fast centralised decision-making. This process-based organising is particularly suitable to tackle crises but face difficulties in normal operations. To learn from past crisis management experiences and develop robust hospitals for the future, a greater awareness of the relationship between different emergency logics and sensemaking in crises is needed.

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Institutional logic; hospital; covid-19; sensemaking; organisational learning

1. Introduction

The COVID-19 pandemic first broke out in Wuhan, China in December 2019 and quickly spread to the rest of the world. The severity of the pandemic came to Europe's attention in February 2020, when images from overcrowded hospitals in northern Italy showed the need for crisis management. In Italy, the severity of the outbreak varied according to region, with Lombardo being among the worst-affected areas (Plagg et al. 2021; Ruiu 2020). In Norway, the health care services were particularly afraid that they lacked the capacity for intensive care and sufficient infection control equipment to handle large infection pressure. In all countries, service delivery modifications were made during COVID-19, allowing health care systems to handle the high infection pressure. Despite differences in health care system responses (Saunes et al. 2022), there were similarities in the solutions chosen by European hospitals, such as the establishment of dedicated COVID-19 units, postponing non-urgent services and more flexible use of personnel

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(Huber, Gerhardt, and Reilley 2021; Tuckermann and Schwaninger 2022; Waring et al. 2021; Webb et al. 2022). Several articles have been written about how the services handled the COVID-19 pandemic from different perspectives, such as the ethos of public services (Shand et al. 2022), the social disorder effect on health care workers (Shuster and Lubben 2022), vaccination among health care workers (Huang et al. 2022) and cooperation between primary and specialist care (Plagg et al. 2021).

This study examine how the different waves of the pandemic were experienced at Oslo University Hospital HF (OUH) to understand the tension between different emergency logics and the importance of sensemaking in the processes of organisational adaptation during crises in a sociological perspective (Lupton and Lewis 2022). OUH was one of the hospitals in Norway that was most affected and made major organisational adjustments and changed the management structure during the pandemic. The pandemic serves the role of an analytical prism that provides insight into the hospital's organisational and institutional conditions.

2. Theoretical foundations

The theoretical starting point of this study is based on Weick's theory that organisation is a process of sensemaking (Weick 1990). Organisations are not seen as 'objects that have been constructed' but as processes 'in the making' (Hernes 2007). Weick developed his theories by observing how actors behaved in crises and then explained their actions in the process. Organisational processes are by-products of attempts to deal with the world and the situations in which one is involved (Weick 1990). Therefore, this study analyses pandemic management in light of what was perceived as problems and solutions and how individuals interpreted actions and activities afterwards and gave meaning to what they experienced. How we give meaning to actions is essential to the understanding of organisational outcomes, processes, interpretations and changes (Thornton, Ocasio, and Lounsbury 2012; Weick, Sutcliffe, and Obstfeld 2005). In the face of crises or problems, one tries to resolve the situation by applying existing knowledge, logic and experience. In the first instance, one would like to try to solve the task in the same way as one otherwise would by drawing on existing knowledge, but in the face of acute crises, one is forced to improvise. This type of situation often triggers a sensemaking process after improvisation, which becomes the basis for new knowledge and experience in the face of similar situations in the future. This is a retrospective mental and social process for rationalising action in organisations as was shown by Faux-Nightingale and colleagues in their study of a specialist NHS Trust in England during the early stages of the COVID-19 pandemic (Faux-Nightingale et al. 2023). In many ways, the process deals with how to 'speak an event into life' to attribute meaning and 'give meaning' to what has happened (Thornton, Ocasio, and Lounsbury 2012; Weick, Sutcliffe, and Obstfeld 2005).

Institutional logics affect interpretations of actions, activities and solutions, and such meaning-making processes take place at the intersection between different logics (Nigam and Ocasio 2010; Kristiansen, Obstfelder, and Lotherington 2015). Institutional logic is defined by Thornton and Ocasio as *'the socially constructed, historical pattern of material practices, assumptions, values, beliefs and rules by which individuals produce and reproduce their material basis of existence, organize time and space and give meaning to their social reality'* (Thornton and Ocasio 1999).

An organisation will have different institutional logics interacting and competing in the decision-making processes, which will become more or less valid in sensemaking processes as has been shown by other authors (Kristiansen, Obstfelder, and Lotherington 2015; Nigam and Ocasio 2010; Hallett and Ventresca 2006). By contrasting two different institutional logics from the risk management literature in the analyses of pandemic management at OUH, the tension in the understanding of priorities, problems and solutions is highlighted (Table 1). In the crises and risk management literature these two logics are described as the distinction between

Table 1. Overview of the differences between planned and ad hoc emergency logics based on elaboration of wildavskys typology (1988).

	Planned emergency logic	Ad hoc emergency logic
What?	Resource management, optimal rationality	Emergency capacity, limited rationality
Who?	Management, Top-down	On-site, Bottom-up
Why?	*Predictability* Follow the planning and ensure flow of information	*Unpredictability, ambiguity* To create a shared understanding of the situation.
How?	Formal decision structures, regulations, instructions, unity of command, risk analysis.	Improvisation, reduced activity, expanded authorities, process management.

hierarchical planning and more network-based, practical on-site work (Fimreite et al. 2011; Rosenthal, Boin, and Comfort 2001). Aron Wildavsky was considered a pioneer in this field and established the term 'resilience', or robustness, as a contrast to more anticipating planned and strategic assumptions. This can be seen as two different understandings or logics that compete to define the situations that arise and how crises should be met (Wildavsky 1988).

The strategic, anticipation and planned emergency logic is characterised as an instrumental top management perspective or a top-down perspective and is hierarchically rooted (Fimreite et al. 2011). More specifically, *'Anticipation is a mode of control by a central mind; efforts are made to predict and prevent potential dangers before damage is done'* (Wildavsky 1988). This is a logic related to making emergency plans, which make assumptions about predictability. Such plans are usually made under normal stable conditions prior to any crises. Organisations are then expected to handle crises using the given frameworks and emphasise the importance of establishing clarified roles and having formal crisis management when a crisis occurs (Rosenthal, Boin, and Comfort 2001). The planned emergency logic follows a form of optimal rationality, in which all alternatives are considered before the best solution in the given situation is chosen. This is seen as an ideal to strive for in decision-making. The plans are based on imagined scenarios and models to prepare the organisation for what may come. Ideally, all alternatives should be analysed and assessed in advance so that the organisation is as well prepared as possible.

In contrast to this, the ad hoc emergency logic, is characterised by Wildavsky as a bottom-up perspective. Behaviour in crises where improvisation and the ability to quickly make the necessary decisions are emphasised. This is resilience and defined as the *'capacity to cope with unanticipated dangers after they have become manifest, learning to bounce back'* (Wildavsky 1988). To achieve this, the structure must be plastic and flexible. Decisions are often made in networks across established structures (Fimreite et al. 2011; Bryce et al. 2020). This could also be related to Adhocracies as Mintzberg defined as '*a highly organic structure, with little formalization of behaviour. A tendency to group the specialists in functional units for housekeeping purposes but to deploy them in small project teams to do their work'* (Mintzberg 1983). This logic sees crisis plans more as preparation for the unexpected and not as binding documents. A central premiss is a form of limited rationality that defines problems and solutions within the framework of what is available in the situation (Simon 1947). An important aspect of this logic is to enable early a common understanding of the crisis as a basis for decisions (Rosenthal, Boin, and Comfort 2001) and seeing the organisation as procedural in accordance with what Weick found in his studies of air disasters (Weick 1990).

The study presented here explore how these two logics interact and discuss the prerequisites for learning from the pandemic to establish more efficient health care services in normal operating situation but that is also prepared for future crises.

3. Method

The purpose of this study is to provide a rich picture of the sensemaking and organisational processes that occurred in connection with the handling of the COVID-19 pandemic. OUH was selected as a case for this purpose. OUH is Norway's largest university hospital with over 24,000

employees and one of the hospitals in Norway most affected by the pandemic. A qualitative case study research design, using both in-depth interviews and document studies, was chosen (Yin 2014) to enable an explorative research design. This approach gave us rich data on the sensemaking and organizational processes during the pandemic. The interviews were conducted as semi-structured individual and focus group interviews (Tjora 2021). The data this study drew from were two focus group interviews and 19 in-depth interviews conducted across four clinics at OUH from December 2020 to November 2021, as well as documents from OUH and other publicly available publications, such as the COVID-19 commissions (NOU 2021, 2022).

The research interviews were semi-structured and conducted in a face-to-face situation and lasted between 50 and 70 min each. All interviews were digitally recorded and transcribed by a research assistant. The interviews were coded thematically. This empirical coding technique allowed an explorative and grounded theory approach (Tjora 2021). The data was sorted in three main data areas; one grouping the interviews and the documents into three categories of personnel: 1) managers 2) trade unions representatives (TU) and 3) employees. Second area concerning the timeline and a third area concerning experience with the specific changes made during the pandemic. The production of three different data tree system aimed to highlight the similarities and differences between responses and, ultimately, aid theory building. Analytically we sought to draw out recurring themes in regard to a number of key topics of interest.

The project was approved and presented at a management meeting at OUH. Staff from the Cancer Clinic, Acute Clinic, Medical Clinic, Oslo Hospital Service and central human resources (HR) were selected, as these clinics were most affected. Specifically, central employees and managers were selected from these clinics for interviews. In addition, the snowball method was used in that key persons were selected because they were highlighted in the interviews as particularly relevant informants (Tjora 2021). The interviews were conducted by the author and a research assistant. The author had a part time position at Oslo University Hospital prior and during the period data was gathered 2016–2022 and full-time position 2013–2016 at the human resource department. The position was not related to this study but gave profound insight in the organisation and developments of OUH that was helpful in getting access to data.

All interviews were anonymised, and all personal and identifiable information was removed from the interview material. The informants provided written consent before being interviewed, and data handling was approved by the Norwegian Center for Research Data (NSD) (reference number 256958) and followed the University of Oslo's research ethics guidelines. The interviews were performed in Norwegian and first presented in a Norwegian publication (Kjekshus 2022). To enable an international publication the selected citations was translated and checked for its original meaning.

3.1. Case description

After the outbreak of COVID-19, the World Health Organization (WHO) warned of a possible worldwide pandemic, and already in January 2020, hospitals began to prepare for what was to come. At OUH, work on mapping the need for infection control equipment and registering the intensive care capacity began during this time. However, it was not until 28 February 2020, when a major outbreak of COVID-19 infection in the eye unit and 280 employees were quarantined, that the seriousness of the pandemic was made evident. On 3 March 2020, a webinar was organised for Norwegian intensive care doctors with an Italian intensive care specialist. The webinar was described as a provoking and shocking, with stories of overcrowded and chaotic conditions in the Northern Italian intensive care units, giving a very describing picture of what could be expected (Nakstad 2021). This webinar was often referred to in the interviews. On 12 March, Norway was completely shut down; schools and universities were closed, home offices became the rule and the national borders were closed.

OUH was quick to review and monitor the need for infection control equipment and the intensive care capacity. It began by establishing emergency management and reducing planned (elective) activity. Effective triage, triage tents and zones, test centres and geographical operational coordinators with shorter and more efficient chains of command were established at all operating units. A centralized personnel transfer unit was created, enabling a more flexible redeployment of personnel. A separate agreement was concluded with the trade unions (TUs), with separate compensation for extended working hours and flexibility. Eventually, separate COVID-19 cohorts were created, and new digital arenas for meetings and patient contact were created. The decision-making was lean and decentralised. Separate crisis teams with selected expertise were established to assist with crisis management. TU representatives met in the CEO management meetings when the status of the COVID-19 situation was regularly presented.

Figure 1 show the main periods of the phases of the pandemic and the different waves of COVID-19 outbreak in Norway. In the first wave 8000 people was infected, in the second 40 000, and 50 000 in the third wave. By the end of 2021, a total of 7004 patients in Norway had been admitted to hospitals with COVID-19, and of these, 5581 patients had COVID-19 as the main cause. Of these again, 1 079 patients had been admitted to intensive care units. 900 had died as a direct result of COVID-19 (NOU 2022). The total economic costs of the pandemic in the period 2020–2023 has been stipulated to around 30 billion EUR. This corresponds to 8.6 per cent of the GDP for 2021 (NOU 2022).

Following the first and second waves of the pandemic, several evaluations and internal audits were conducted at OUH. Several of these evaluations gave a picture of a hospital that was not prepared and did not follow established crisis plans (Årdal Bjerke, Hagen, and Presthus 2020; MHB 2021). Still, the hospital handling of the pandemic has been deemed as a success although the ability to learn from the pandemic was questioned (Bjørnebeth 2022).

4. Analysis

The purpose of this analysis is not to determine whether OUH handled the pandemic well. Instead, this analysis takes a closer look at the different phases of the pandemic and how the different emergency logics characterised and contributed to giving meaning to crisis management. The aim is to learn more about organising hospitals by using the pandemic as a lens.

A central difference in the two emergency logics is the importance of creating a shared understanding of the situation. The planned emergency logic is based on formal decision-making structures and instructions with clarified roles with less emphasise on sensemaking. The understanding of the situation is according to this logic given by top-level management through formal channels. In contrast, the case of an ad hoc emergency, it is necessary to act independently of plans and formal lines of command. By creating a common bottom-up narrative

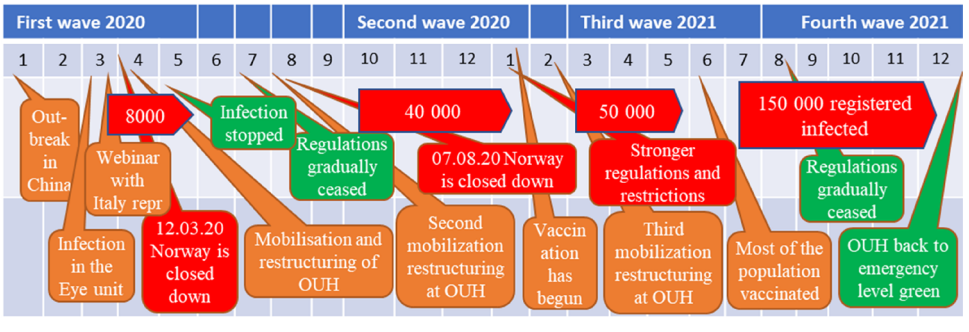

Figure 1. Timeline of the outbreak of COVID-19 (source: Norwegian surveillance system for communicable diseases (MSIS) statistics bank, (NOU 2022).

and understanding of the situation, patterns of action come naturally, and new structures are adapted to the situation that arises. Sensemaking would be essential in an ad hoc emergency logic.

In the first phase of the pandemic, there were several examples of such dramatic events, which created a clear common understanding of the crisis and were the ad hoc emergency logic became dominant. In particular, as described previously, when OUH experienced the infection from within, when an employee at the eye unit was infected by the COVID-19 virus, this was shocking for the hospital and defined this first phase.

4.1. Mobilisation in a crisis situation – all hands on deck!

In the first phase after the outbreak in the eye unit, there was a great willingness to contribute, and the employees had a clear understanding of the crisis. Employees were redeployed and retrained to staff COVID posts/cohorts:

> Employee: When it started, it was 'all hands on deck', and everyone just had to do the best they can. […] There was so much happening, so incredibly fast, and there was so little resistance. […] There was also the feeling that there was a lot of uncertainty, a hysterical state of crisis. You didn't know how contagious it was—you didn't have infection control equipment, and there was a lot of misinformation.

The first period was described as a state of emergency where there was a lot of fighting but at the same time great courage and acceptance of strict and direct governance. Despite the lack of plans and insufficient information, the common understanding of the crisis meant that it was accepted that one had to contribute. Furthermore, no questions were raised about extensive redeployment and organisational changes. The fact that everyone accepted redeployment and new work tasks that would normally have caused a lot of noise and resistance made us ask about the experience of volunteering:

> Employee: It didn't feel voluntary. I was never directly told that it was voluntary either. I understood that I could refuse if I had a good reason. But it felt like a duty in many ways. Both morally and the fact that I am employed at the hospital, they can reassign as they want. But eventually, I realised that it was voluntary because there were several other people who had said no.

Both managers and employees explained the first period of the pandemic as a good period with great team spirit and courage among the employees. The hospital was described as showing its best side during a crisis, which can also be traced to a common understanding of the situation:

> Manager: Everyone just stepped up, and there was a great spirit of unity because we worked together towards a common goal. All disagreements were set aside—a completely different management situation without having to argue about every detail. Everyone lined up. It was the same as the 22 July crisis, when everyone just turned up for work. Imagine achieving this sense of community under normal conditions.

In this quote, a leader problematises the relationship between a normal situation and a crisis. The manager pointed out a similar experience in Norway on 22 July 2011 in connection to a terrorist attack on a political youth camp (Utøya) and the government quarter, which put the hospital in an extraordinary crisis situation. All resistance that managers experience in normal operating situations vanished because everyone worked together towards a common goal. The hospital's flexibility during the pandemic across departments and clinics was special and bore the mark of the fact that the pandemic was seen as important and had high priority. The managers who handled the pandemic were referred to positively, even if there was confusing information and unclear plans:

> Employee: It was really impressive. We scaled up at a tremendous pace. [The crisis manager] was fantastic—very direct and open about the challenges, including infection control, which was sometimes confusing. It was like, 'this is not optimal, but safe enough'.

Openness was seen as important, and it was an arena for 'no bullshit'. The management described the situation factual and as it was. This transparency provided legitimacy and enhanced trust. This can be seen as a consequence of the ad hoc emergency logic. The shared understanding of the situation enhanced the acceptance of limited rationality, and action was taken based on the limited resources available. Incorrect information and uncertainty that in a normal situation would not have been accepted were given a different meaning and understanding in a crisis. Therefore, the ad hoc emergency logic led to a higher tolerance for ambiguity as long as it was transparent (Ihlen et al. 2022).

However, as the pandemic continued, the shared understanding of the situation eroded. The large waves of infections that were expected did not occur. Due to the restrictive infection prevention policy established by the Norwegian government, the infection rate in Norway was kept low (NOU 2022). However, with the lack of COVID patients, a growing reluctance formed, and the health personnel shifted the logic and started to demand a planned emergency logic to a greater extent:

> Employee: The fact that there was dissatisfaction among the physicians was related to the inactivity [at the COVID unit]. We wanted to go back to our own departments because we were itching to work on the things that were waiting back there.

Lack of action in the COVID-19 unit, frustration of not having anything to do and the fact that empty COVID-19 units occupied resources that could have been allocated towards other patient treatments made several employees call for more predictability and fair plans. As shown in Figure 1, the pandemic came in waves, and in the second and third waves of the pandemic, the hospital started to struggle with recruitment and support:

> Employee: It was no longer 'all hands on deck'. There were very few people on deck. It was completely random who was called out. I kind of felt like I was being cheated. I volunteered because it was a real need. […] But I don't think I'm willing to say yes this time.

The duration of the pandemic took its toll on the staff, and several referred to it as waves, not as a persistent crisis. Furthermore, opinions changed. A crisis arises and is dealt with, but the presence of a crisis over a long period developed into a new normal, which became a new challenge for the organisation. It became difficult to continue gaining support and common understanding of the situation when the waves of crises became the new normal.

4.2. Co-determination and involvement

In Norway, 71% of hospital employees are members of a trade union (Nergaard 2020). When the pandemic occurred and management saw that hospitals would require rapid and major organisational changes, they established a new lean governance structure that increased the involvement of TU representatives at all levels of the hospital but also enhanced the steering capacity. In ordinary times, TU representatives have a central and formal role in the hospital's decision-making structure, but there was a tradition of distinguishing between management meetings and dialogue meetings. During the pandemic, central TU representatives were included in the management meetings on a regulative basis in order to make faster decisions and more radical changes. This both enabled more steering but also the TU representatives experienced increased co-determination, better information flow and faster access to decisions and real influence.

There has been much debate about the role of TUs at OUH and, in particular, how much influence and decision-making access they should have. Traditionally, TU representatives in hospitals are used to having great influence and representativeness. Still, during the pandemic, the real influence increased even more, albeit became more centralised, to the satisfaction of TU representatives:

> TU: Yes, I don't say that everything was great. But it has worked, and there has been good communication along the way, and TU have raised issues where the management line is perhaps more concerned with

> using the command line. We are perhaps keener to discuss—for example, 'If you were infected by COVID-19 at work', is it an occupational injury? I think the management, with its administration, also sees TU representatives as contributors. We were seen not only as a counterparty but also as an accomplice.

The quote shows that new arenas for dialogue were established, traditional dialog meetings were set aside and cooperative relationships and line of command was improved, as TU representatives were linked more closely to decisions and held accountable. The shared understanding of the situation made it less threatening for management to include TU representatives in the decision-making process. There was a shared understanding that enhanced the confidence that the decisions made were necessary and pivotal. The relationship between the employer's right to control and employees' co-determination became even clearer during the pandemic. However, as the pandemic developed and the collective understanding of the crisis diminished, the need for cooperation arenas also decreased:

> TU: But meetings are becoming rarer and rarer, as the number of COVID-19 cases is decreasing…. There is nothing to indicate that management will continue this structure in any way. Yes, we have been very critical, but it is a shame that we are not seen as positive contributors because it had strengthened the cooperation between the parties, and it had strengthened the security of the management when they made decisions.

TU representatives had often felt they had no real influence, but during the pandemic they experienced more influence and were given an important function, which re-established their roles as partners: *'We have felt that we have contributed and we have been listened to, and it has been a hospital dream'.*

During the third and fourth wave of the pandemic, the common understanding of the crisis waned, and the hospital returned to the old governance model, where the managers' right to manage without too much involvement from the TU representatives was emphasised. The importance of a shared understanding of the situation was then diminished, and also then the steering capacity was reduced.

4.3. Plastic structure and flexibility

The managers experienced increased power, budgets, flexibility and trust during the pandemic. They saw that structure and plans were less important and that the mindset of the employees was the source of success. The ad hoc emergency logic can be recognised by the fact that the hospital was described as plastic and adaptable and that it quickly adopted new digital platforms that provided new opportunities for management and meetings:

> Manager: I find the organisation to be very plastic in the sense that it adapts. And people are used to doing things without necessarily having everything written down and having plans and such. It feels like an organism that, in a way, reacts most appropriately then and there. […] Ok, you stumble a little bit at the beginning, but this hospital, which in all other contexts is portrayed as incredibly set and not very adaptable, got everything that was needed in place.

The quote also shows that this flexibility may not be as present in normal conditions; this manager argued that the hospital's ability to adapt manifested despite its formal structure and not because of it. The handling of the pandemic highlighted to an even greater degree how dependent the hospital was on practical skills, a common understanding of the situation and the knowledge of the individual employees, as well as tacit knowledge, mindset and the ability to adapt.

4.4. Local coordinators and resource allocation

A persistent debate in the organisation of OUH is the clinics organised across the geographical buildings that used to be four separate hospitals before merging in 2008. OUH is organised as

15 clinics across these old hospital sites, but the need for on-site management was debated, and in connection with the COVID-19 pandemic, local CEOs, or coordinators as they were called, were reintroduced. This matrix organisation was introduced with the support of the clinic managers:

> Manager: A decision was made in the management meeting and supported by all clinic managers. They basically just said, 'Yes, we do this. You can use all my people'. It became a matrix organisation. The regular management groups would take care of what happened next week, while the new coordinators would take care of what would happen in the next two minutes. [In] peacetime, you could lead from a distance, but in war, you must be on the spot. You have to go to the front lines to get people into war.

An extraordinary organisation with a geographical coordinator was explained using images of war and crisis metaphors. On-site managers had not been part of the hospitals since they merged in 2008, and the clinics were established to achieve better collaboration across the geographical hospital buildings (Kjekshus 2015). Crisis management required on-site managers and forced this solution, although it went against the established structure. The understanding of the appropriateness of this structure was coloured by the understanding of the crisis and justified by the fact that this was an acute emergency that had to be dealt with quickly. The old established clinic structure was set aside, and an important factor was that the pandemic was defined as a situation with an extraordinary need for resources. The ordinary budget discussions between the clinics ceased:

> Manager: We quickly had a need to order extra respirators, and now, we probably have around 260 respirators. Some of them were machines that we found on the attic and upgraded and others we acquired, and we did that quite quickly. We received authorisation to order and so we ordered from all over Europe.… We got word of mouth that yes, there will be extra funding. Then, 6 billion was given to the health care system in a press conference, which we reckoned that, yes, based on our size, 'then a lot of that money will come to us'.

An important adaptation was to reduce activity to prepare hospitals for an increased number of COVID-19 patients. Planned non-urgent operations were cancelled, and the activity was not back to normal even for a long time after the pandemic. The fact that the hospital was given essentially unlimited funding also meant that there was greater freedom in what to prioritise. Traditional financial management with limited resources was not applicable in the same way, and it was easier to promise resources and personnel across units. The hospital's traditional clinic structure was a conservative one that enforced budgetary discipline across the geographical hospital areas, but during the pandemic, it was understood as inappropriate and not action-oriented enough. When the budget was not an issue, it was easier to argue for on-site coordinators and that they could make decisions without regard to resources. This did not necessarily mean that much more resources were spent on COVID patients, even though they referred to COVID-related expenses as the 'Golden Card'. The biggest expense was that the activity was reduced during the pandemic, causing income to fall.

4.5. Evaluations and own assessments

There was a discrepancy between how informants assessed OUH during the pandemic and the hospital's own evaluations of its own efforts. The flexibility and improvisation that occurred during the pandemic were assessed as problematic by internal audits.

The summaries from the OUH internal audit concluded that plans were not followed, there were ad hoc meetings and the organisational solutions that were chosen went against the established structure. TU representatives were too involved in decisions, and there were continuous major changes in infection control regulations. The on-site management coordinators were assessed as not being appropriate, even though the organisation had otherwise assessed

them as successful. This illustrates the tension between planned and ad hoc emergency logic. The importance of plans adheres to a form of the planned emergency logic, where the importance of plans is emphasised without assessment of effect and can be further illustrated by the following conclusion:

> The real [tacit] competence [among the personnel] in the organisation compensated for lack of planning. [The tacit knowledge] has ensured the necessary restructuring and cooperation in dealing with COVID-19. As the pandemic developed, the emergency plans were continuously established and adapted to the pandemic's development (MHB 2021).

The internal audit acknowledged that it had nevertheless worked and that this was due to 'real competence'. However, what is encompassed by this term or how it is linked to flexibility and improvisation was not discussed; the importance of sensemaking was overlooked.

5. Discussion

Through individual and focus group interviews, participants expressed that there was tension between the various emergency logics. As mentioned, the planned emergency logic is seen as the golden standard in planning and audits, where the ideal is to foresee possible events in advance using scenarios and advanced mathematical modelling (Rosenthal, Boin, and Comfort 2001). This implies a form of optimal rationality in which all possible outcomes and solutions are mapped. In contrast, the ad hoc emergency logic creates an imperative for action, limited by available resources, where the ideal is to make quick and necessary decisions. Furthermore, it is a logic that is particularly associated with acute emergency medicine. During the pandemic, the tension between these logics came to the fore and characterised the debate, both at the national level and within the hospital. Questions debated included the following: How great was the risk that hospitals would not be able to withstand the spread of infection in society? Was there sufficient intensive care capacity?

5.1. Infection from within

Incidents in the first phase of the pandemic had a great impact on OUH's handling and adaptation processes. The major outbreak in the eye unit created an early experience of crisis. In the first wave, there was a period of chaos that was described as somewhat without plan and direction. The seriousness of the pandemic suddenly became evident when the hospital saw how vulnerable it was when it had to close down a whole department. The infection came from within. This was described as particularly challenging because the hospital was not prepared. Infection control in hospitals is primarily aimed at patients, and how they sort their areas into clean and unclean zones is based on this logic. With this internal outbreak, it had to close down its own departments and redirect infection control towards their own staff. This created sensemaking of an acute crisis atmosphere, a shared understanding of the situation and a demand for quick and effective decisions with immediate reactions to the crisis. This gave room for an ad hoc emergency logic and enabled fast centralised decision-making processes.

A driving force behind the need for a local coordinator and crisis management was the Oslo Hospital Service. This clinic organises all logistics and support functions for all hospital buildings. It created its own crisis teams early and enabled a tight management line with local on-site managers. The outbreak of infection in the eye unit clearly showed the need for the rapid reallocation and redeployment of personnel and for on-site management, which caused a deviation from the traditional clinic structure. The image of a sailing ship in a storm and other crisis and war metaphors stuck and legitimised a state of emergency, despite the fact that a large influx of patients did not occur and did not hit the hospital until January 2022.

However, the crisis persisting and not ending was perceived as a challenge. At the same time, a large wave of infection did not occur. The employees dedicated to the COVID-19 patients were inactive for long periods of time. The common understanding of the situation declined as the understanding of the crisis became less clear in the third and fourth wave of the pandemic. In theses phases a demand for more anticipating and planned emergency logic prevailed.

In the beginning, the hospital was affected by how the infection came from within and the fact that there were no good routines or existing emergency plans for dealing with an outbreak from within. The hospital was good at handling contagion being spread by sick patients but dealing with contagion among its own staff was a completely new situation. Especially for the cleaning and disinfection units, this required new roles and assignments.

An important premise was that OUH was exempted from normal, strict budget restrictions. In the community, there was a clear understanding that the hospitals were in a vulnerable situation. The infection in the eye unit showed OUH's vulnerability, and the images of the hospital collapses in northern Italy were frightening. Nevertheless, aside from certain periods at OUH and Ahus, few hospitals in Norway experienced sustained pressure from intensive care patients.

Perhaps aside from the large use of resources and the reduction in activity, OUH's handling of the pandemic was considered a success. All the infection control equipment was eventually put in place, the necessary specialised COVID units were established, other activities were reduced, personnel were quickly redeployed and separate triage tents, infection control zones and test stations were created. The hospitals showed adaptability and flexibility and gradually established effective on-site management structures and information channels due to the sensemaking of an crisis allowing strong centralized and fast ad hoc decision-making.

5.2. Towards a new normal and a resilient hospital structure?

When OUH evaluated its performance during the pandemic, it evaluated the hospital against a normal situation and based on a planned emergency logic. In such a picture, it becomes less understandable how the hospitals functioned during the pandemic, as it held up the hospital's ordinary structure as the ideal. The hospital's flexibility and improvisation were ultimately less valued. Furthermore, it is difficult to establish insights from the pandemic and translate them into a new normal characterised by differentiated situational awareness. However, much insight would be lost if the conclusion were reduced to that everything that was established during the pandemic was only in response to a state of emergency.

The pandemic showed that the hospital's basic clinic structure across geographical locations was not relevant to the actual activities, which were geographically rooted. The pandemic showed that the hospital treats the formal structures as plastic and that it is the actual work processes that define the need for coordination and access to resources. In this way, the ordinary structure was considered a basis from which employees moved when they had to enter their work processes. This means that the structure around the work became extremely flexible and based on an ad hoc emergency logic. Employees sat in their own units and moved out when needed. This has also been described by Mintzberg as characteristic of professional bureaucracy, but even more so that of an adhocracy (Mintzberg 1983). An adhocracy is the ultimate flexible organisational configuration to achieve innovation and was, according to Mintzberg, first used to describe NASA's effort to put the first man on the moon. Furthermore, it was used to describe how the Manned Space Flight Center at NASA constantly changed its structure in its first years during the 1960s to achieve this goal (Litzinger, Mavrinac, and Wagle 1970):

> The Adhocracy must hire and give power to experts. […] but unlike the Professional bureaucracy, the Adhocracy cannot rely on the standardized skills to achieve coordination […] because that would not lead to innovation. […] Thus, whereas each professional of the Professional Bureaucracy can operate on his own, in the Adhocracy the professional must amalgamate their efforts (Mintzberg 1983).

Common conceptions, goals and networks, not the structure, are what coordinate actions. The structure is a way of 'sorting' employees. Parallel structures arose—a clinic structure for everyday life and a process structure to respond to the crisis. This undermined the formative importance of the organisational structure and can seem dysfunctional, but in crises, it has been proven to be effective and flexible in that everyone orients themselves to the tasks to be done and not to where the employees come from. The acute understanding and sensemaking of the situation determines who is needed and what competence is required. Thus, the organisation is plastic and adaptive. The command structure changes in line with the tasks to be performed (Mintzberg 2023). Mintzberg did not describe this structure specifically for crises, although he stated that *'Adhocracy is not competent at doing ordinary things. It is designed for the extraordinary'* (Mintzberg 2023). In adhocracies, it is inefficient to perform ordinary tasks due to its high reliance on communication. To make adhocracies work, we need a lot of communication to achieve the common goal. In this way, there is plenty of room for situational understanding or sensemaking to influence how the work is organised. The importance of a common understanding of the situation was evident during the pandemic, and when the pandemic was deemed less serious, the common understanding disappeared, and the adhocracy was no longer as effective.

6. Conclusion

This study showed how OUH could be seen as plastic, flexible and loosely connected organisations described as adhocracies, which are particularly suitable in crises but are difficult to sustain in normal operations. To learn from crisis management and develop resilient hospitals for the future, a greater awareness of the relationship between the various emergency logics and what is appropriate to adjust in a normal operating situation is required.

Wildavsky argued that future crises would be best handled by a balance of resilience and plans (assumptions), depending on knowledge of effective handling and the degree of unknown risk (Wildavsky 1988). However, resilience is also about learning from critical incidents. Coming out of a crisis strengthened increases the capacity to prevent future mistakes in handling crises (Weick and Sutcliffe 2001). An important lesson from the pandemic is how a shared understanding of the situation and sensemaking affected the organisation of the work.

There is a consensus that there would have been fewer restrictions on society if intensive care capacity had been greater. This is also highlighted by the latest Norwegian COVID-19 commission as an important factor. Intensive care capacity had been reported to be too low for the past 20 years, and it had not been possible to build up expertise and what was considered a sufficient number of intensive care beds. This was partly due to disagreements about what constitutes an intensive care bed and a critical and persistent shortage of intensive care nurses (NOU 2022).

At OUH, several internal audits (Årdal Bjerke, Hagen, and Presthus 2020; MHB 2021) and evaluation conferences were carried out with the aim of learning from the pandemic, but they failed to highlight the importance of the concept of organisational resilience, as the interaction between plan and improvisation (Wildavsky 1988; Weick and Sutcliffe 2001). The importance of sensemaking in the various phases of a crisis was omitted. This study showed how the sensemaking of the situation changed during the pandemic and that support for flexible ad hoc solutions decreased. At the beginning, there was a clear understanding of the crisis, and all hands were on deck. The employees showed an outstanding effort and ability to contribute, and the hospital got the necessary changes implemented, but gradually, the pandemic was referred to as waves instead of an ongoing crisis and more predictability was called for. It is less likely that this flexibility would be possible in normal operations, as it was dependent on a clear common understanding of the crisis being established.

This case study shows that it is not just a matter of resources but also how the organisation balances plans and flexibility. Still, it seemed coincidental how the hospital converted into an adhocracy and how it normalised and then fell back into ordinary management systems with

clinics and formalised hierarchies. This was despite an understanding that the hospital's 'real' structure became more visible during the crisis. Ultimately, managers, TU representatives and employees referred to the ad hoc emergency logic as more effective but also as exhausting in the long run. If hospitals are to learn from crises, it is crucial to understand the importance of sensemaking in crises.

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