Physicians' experiences of challenges in working conditions related to the provision of care during the initial response to the COVID-19 pandemic in Sweden

Karin Nilsson
Unit of Occupational Medicine, Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden

Bodil J. Landstad
Unit of Research, Education and Development, Östersund Hospital, Östersund, Sweden and
Department of Health Sciences, Mid Sweden University, Östersund, Sweden

Kerstin Ekberg
Department of Health, Medicine and Caring Sciences, Linköping University, Linköping, Sweden

Anna Nyberg
Unit of Occupational Medicine, Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden and
Department of Public Health and Caring Sciences, Uppsala Universitet, Uppsala, Sweden

Malin Sjöström
Department of Public Health and Clinical Medicine, Umeå Universitet Medicinska fakulteten, Umea, Sweden, and

Emma Hagqvist
Unit of Occupational Medicine, Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden

Abstract

Purpose – This aim of this study was to explore how hospital-based physicians in Sweden experienced the challenges in working conditions related to the provision of care during the initial response to the COVID-19 pandemic in 2020 when hospitals transitioned to pandemic care.

Design/methodology/approach – The study has a qualitative design. Twenty-five hospital-based physicians were interviewed about their experiences from working in a hospital while healthcare

organisations initially responded to COVID-19 pandemic in 2020. A thematic analysis was used to analyse the empirical material.

Findings – The analysis resulted in four themes: involuntary self-management, a self-restrictive bureaucracy, passive occupational safety and health (OSH) management, and information overload. These themes reflect how the physicians perceived their work situation during the pandemic and how they tried to maintain quality care for their patients.

Practical implications – The study gives valuable insights for formulating preparedness in regard to crisis management plans that can secure the provision of care for future emergencies in the healthcare services.

Originality/value – This paper shows that a crisis management plans in the healthcare services should include decision structures and management, measures of risk assessment and OSH management, and the maintenance of personnel wellbeing. A prepared healthcare management can preserve quality care delivery while under crisis.

Keywords Risk management, Health care quality, Safety culture, Patient safety, Leadership, Management, Communication, Qualitative research, Health professions

Paper type Research paper

Background

The unprecedented demands on clinical practice and healthcare professionals caused by the COVID-19 pandemic has drawn extra focus on providing safe and quality care (Braithwaite, 2021; Garcia Elorrio *et al.*, 2021; Neilson and Leatherman, 2021; Wei *et al.*, 2021). In mid-2020, the World Health Organization (WHO) published a 10-point guide on how healthcare services could maintain essential health services during the pandemic (World Health Organization, 2020). This operational guide should have provided countries with a hands-on action plan to manoeuvre through the COVID-19 crisis. However, it was not detailed enough, leading to a lack of support for the healthcare personnel's everyday work during the pandemic (Wei *et al.*, 2021).

Plenty of evidence acknowledges the importance of healthcare personnel's working conditions and, more specifically, their health for the provision of safe care (Løvseth and de Lange, 2020; Montgomery *et al.*, 2020; Parkinson, 2018; Teoh and Hassard, 2020). Leo *et al.* (2021) show in their review that an increased risk of burnout in healthcare personnel, such as that during the COVID-19 pandemic, carries with it a negative effect on the provision of care and efficiency of the healthcare system. Although evidence shows that with the extra burden on the healthcare system, physicians' workload and health have been negatively affected (De Sio *et al.*, 2020; Leo *et al.*, 2021; Restauri and Sheridan, 2020; de Wit *et al.*, 2020), few studies have focused on physicians' experiences of providing safe and high-quality care during these circumstances.

A recent Swedish study shows that Swedish physicians experienced extremely high levels of exhaustion during the peak of the second wave of the COVID-19 pandemic (Hagqvist *et al.*, 2022). Studies from other countries confirm these figures (De Sio *et al.*, 2020; Leo *et al.*, 2021; Restauri and Sheridan, 2020) and link them to the many unprecedented working demands during the pandemic (Billings *et al.*, 2021; de Wit *et al.*, 2020). Although many physicians eventually adapted to the pandemic situation – "the new normal" – they experienced worries about the future, raising fatigue, heavy workload, severe stress and that they were losing control (Eftekhar Ardebili *et al.*, 2021). Experiences from this and previous pandemics with a high impact on healthcare show that a common problematic issue in the work environment was the ethical and moral dilemmas associated with lack of support, resulting in healthcare personnel being left alone to make critical decisions (Billings *et al.*, 2021). Conclusions drawn from the current literature are that the COVID-19 pandemic has challenged physicians in various ways and that more studies are needed to understand how they experience these challenges.

During a crisis with a high burden on the healthcare systems, organisational resources, support and leadership are vital to reduce the risk of employees' occupational ill-health

(Kisely *et al.*, 2020; Morgantini *et al.*, 2020). Employers can minimise burdens on healthcare personnel by providing procedures for infection control, protective equipment, adequate training (Kisely *et al.*, 2020). Also, clear communication and information are needed and that managers make priorities in care to reduce risks of transmission and bed occupancy (Kisely *et al.*, 2020).

Although it is well acknowledged that physicians' working condition and health impact patient safety and quality of care, few studies seem to have explored this during the COVID-19 pandemic. We found one article, a qualitative study among emergency healthcare personnel from Iran focusing on care provision in relation to their experience of working during the pandemic (Mohammadi *et al.*, 2021). This study shows that improving the psychosocial safety of healthcare personnel and reducing occupational burnout and stress, was vital for the provision of care for COVID-patients (Mohammadi *et al.*, 2021). The same study reported that comprehensive care guidance and systematic planning were essential for providing care among emergency healthcare personnel during the pandemic. Inadequate personal protective equipment was also a significant challenge affecting the care provided to COVID-19 patients (Mohammadi *et al.*, 2021). Although this study is very informative, these issues should be explored in other contexts.

In summary, there is a gap in evidence on how to best support healthcare personnel with the physical, psychological, behavioural, and social repercussions of working at the frontline of a pandemic or, indeed, all crises (Obrien *et al.*, 2021). To fill this gap, we need to go beyond quantitatively measuring of occupational exposures and health during the pandemic. In this study, we seek to fill this gap by interviewing physicians to get a deeper understanding of their situation. This study aims to explore how hospital-based physicians in Sweden experienced the challenges in working conditions related to the provision of care during the initial response to the COVID-19 pandemic in 2020 when hospitals transitioned to pandemic care.

Method
The empirical material used in the analysis consists of interviews with hospital-based physicians that were working in Sweden during the first period of the pandemic. Interviews focused on physicians' experiences from working in a hospital while the healthcare organisations initially responded to COVID-19 pandemic in 2020. The interviews were conducted during late summer and early autumn of 2020, before the second wave.

Participants
A total of 25 hospital-based physicians were interviewed. They were both, directly and indirectly, involved in caring for COVID-patients. The physicians worked in different wards and units depending on their speciality. They were employed at various sized and geographically located hospitals both in rural and urban areas in Sweden. Their experience as physicians ranged from eight to 30 years. They were either consultants (6), specialist or attending physicians (11), or resident physicians (8). The medical specialists represented internal medicine (including infectious diseases), neurology, surgical specialities, paediatrics, anaesthesiology, and intensive care. Seventeen of the physicians were female.

Procedure and data collection
Announcements with requests for participation in the study were published in social media and the journal for physicians distributed from the Swedish Medical Association. All those who showed interest were sent an e-mail with information about the study, invitation to participate, consent, and anonymity. Due to the ongoing pandemic, it was possible to

participate through online video technology. The individual interviews were conducted by EH and took between 60 and 90 min. All interviews were audio-recorded and transcribed verbatim by an external professional.

The interview guide included discussion themes regarding the transition from regular care to pandemic care, leadership and how work was organised, care provision, individual health and ethical stress, and thoughts about the future. The guide was first piloted in four test interviews with physicians in different positions to assure its accuracy to the purpose of the study and adjusted accordingly.

Following Guest *et al.* (2006), we acknowledged that our data was saturated when no new themes and no new coding appeared and new data yielded redundant information. At this point, the empirical data was robust, rich and thick in description (Fusch and Ness, 2015). In total, we reached 25 interviews which were used in the analysis.

Analysis

The empirical material was processed using the thematic analysis as proposed by Braun and Clarke (2006), which is a useful method for identifying and analysing patterns of meaning in a material. The method offers a comprehensive exploration of the different experiences of the persons interviewed. The analysis had an inductive approach and the aim to identify the themes without prior knowledge or theories guiding the process. In line with Braun and Clarke (2006), we were looking at the most salient meanings in physicians' experience of the challenges in working conditions related to the provision of care during the initial response to the COVID-19 pandemic in 2020, when hospitals transitioned to pandemic care. The analysis was led by author KN with the support of EH.

Following the six steps of Braun and Clarke (2006), the analytical process was initiated by listening, transcribing, and reading the interviews in their entirety to get an overarching picture and sense of the content. The first step aims at getting familiarised with the material. Thoughts and reflections that arose during the reading were documented. In the second step, all units that could have a bearing for the aim of the study were coded with a brief description. This initial coding is a way of sorting the material. The third step involves pairing codes with similar context and descriptions. These were ordered in such a way that the content made true sense (Cypress, 2017). This process aims at sorting the codes into broader subthemes. Continuous comparison of codes and categories and re-categorisation were carried out. Lastly, overarching themes among related codes and subthemes were identified (Braun and Clarke, 2006). In step four, these themes were reviewed. Some of them got discarded, others were reorganised into other themes. The themes were then refined, defined, and named during the fifth step of the process. The sixth and final includes writing the results of the analytical process, where we present our findings in a clear, coherent, and convincing way and motivate our claims with appropriate quotations.

The six steps of the thematic analysis are not a strictly linear process but a continuous iteration where the phases and steps overlap. KN and EH continually discussed codes and themes as they evolved. The content of the themes was thereafter discussed with the other authors, and small changes to the organisation and content of the themes were made.

Ethics approval and consent to participate

The study was approved by the Swedish Ethical Review Authority (2020–02433). The project was undertaken according to research ethics guidelines and written as well as oral informed consents were obtained from all participants at the start of the interviews. The physicians were told that their participation was voluntary and that they could withdraw from the study at any time.

For confidentiality, all personal and other identifiable information was removed from the transcribed interviews. All interviewees were given a code that was kept separate from the code key. In the present study, interviewees are named A to Z. In the presentation of the results, any information that located an interviewee to a hospital was removed.

Due to reports from other countries showing symptoms of posttraumatic stress disorder (PTSD) among healthcare personnel, the authors conducted a screening for PTSD prior to the interviews. The instrument used for screening for PTSD was developed from the Clinician-Administered PTSD scale for DSM-5 (Bondjers *et al.*, 2019). None of the participating physicians showed any symptoms of PTSD, and we proceeded with the interview. For the event that any of the interviewees had shown signs of PTSD, the interviewer was prepared to direct that physician to professional help.

Results

The analysis resulted in four themes reflecting how physicians experienced working within healthcare organisations during the pandemic and their ability to deliver care. The four themes are: involuntary self-management, a self-restrictive bureaucracy, non-responsible occupational safety and health (OSH) management, and information overload. Themes and subthemes are presented in Table 1.

Overall, the physicians summarised their experience of this period as chaotic. It was evident that all physicians, whether they worked with COVID-patients or not, were affected by the pandemic in their profession. The physicians spoke about their concerns with the management, referring to all levels of hospital management, including the political establishment. As such, in the description of the themes below, we also refer to a general management.

Involuntary self-management

The theme of *involuntary self-management* identifies the overall experience among the interviewed physicians that healthcare services were unprepared and lacked plans for a major crisis such as the COVID-19 pandemic. Physicians felt alone to make important decisions on care provision. This dearth of preparedness included a lack of comprehensive

Theme	Subthemes
Involuntary self-management	No coordination between wards
	We were forced to make decisions as there were no directives
	There was an absence of clear mandates
	The organisation was not prepared
A self-restrictive bureaucracy	Money and politics rule this organisation
	A stale organisation
	Sidestepping the bureaucracy
Passive OSH[1] management	The management has gone AWOL[2]
	The management is not being truthful
	Our safety is not a priority
	An open dialogue was stifled
Information overload	A massive inflow of information
	Rapidly changing directives
	Someone needs to sort this out
	What information can we trust?

Note(s): [1]Occupational Safety and Health
[2]Absent from where one should be

Table 1.
Analysed themes and subthemes

guidance and strategic plans to coordinate between and within healthcare wards, including the administration of patient flow, adequate provision of protective equipment, and the assessment of occupational risks. Physicians described that there was a lack of treatment protocols or preparedness plans in place explaining how the transition from regular care to pandemic care would be carried out effectively and safely. When plans or protocols existed, they were often insufficient and useless.

> There was a discrepancy between my expectations of what I think has been a well-organised system and what I actually experienced when this [the pandemic] happened. Suddenly we had no face masks, we had no aprons, we had no gloves, we had no hand sanitiser. - Q

In the interviews, it became evident that cooperation and coordination between departments and units in many cases failed or were inefficient. One aspect that was brought up was the appropriate level of care for COVID-infected patients. There was often no clinical criteria or guidance dictating which patients with COVID should be eligible for intensive care (IC) or how to handle multimorbid patients with symptoms of COVID. Physicians experienced that they often were coerced to make difficult decisions where they were stuck between directives from above, other departments, their own sense of safety and the provision of safe care. For example, the interviewed physicians described situations where they had decided that patients needed IC, but physicians at the IC unit (ICU) made a contradicting assessment. Physicians said that they believed the decisions made at the ICU prioritised the limited resources at the ICU rather than individual patients' needs. This created ethical and moral stress among the interviewed physicians who experienced frustration that their patients did not even get a chance to survive. This ethical stress was exemplified in several of the interviews.

> There were several patients that we felt needed IC but whom the ICU would not take and put in a respirator. And then [. . .] it was put on me to tell the patient and relatives although it was not my decision. This was immense emotional stress [. . .] It is possible the patients would not have survived in IC but they should have been given a chance. I was very, very angry, I felt unable to do anything, I do not have a respirator of my own to use. - F

Another concern indicated during the interviews was the differences in routines regarding patient procedures and access to safety equipment between the different wards. There is a lack of consistency resulting in physicians feeling they had to personally take ownership of the management issues. This resulted in healthcare personnel having different personal safety equipment, the consequence being different levels of safety for personnel in the same room caring for the same patient. In one of the interviews, a psychiatrist described situations where patients were put under general anaesthesia during electroconvulsive therapy (ECT):

> Sometimes when you stood there close to the patient, personnel from the psychiatric ward and the psychiatrist administrated ECT, holding the ECT paddles to patients' temples. Then you are very close to the patient with no protective equipment. Then the anaesthesiologist or anaesthetic nurse came in wearing a full protective uniform because their risk assessment rated this a very high risk. The completely unprotected people [from the psychiatry] who are in the room are very close to the patient, so frustrating, the frustration grew gradually, you could say. – T

In the absence of clear mandates or directives from management, healthcare personnel sometimes felt forced to take measures and make their own decisions. This sense of being on their own created a strong sense of affinity where the unit resolved these situations efficiently and innovatively. For example, nurses took it on themselves to collect protective gear from local shops, while "task forces" created triage and other routines to handle the inflow of patients. The downside to this was a diminished trust in the larger organisation and management.

However, where healthcare personnel felt coerced to act without a mandate, a destructive hierarchy was created were physicians with more experience made decisions without

involving the rest of the personnel. This informal leadership created conflicts and a sense of injustice.

A self-restrictive bureaucracy
The theme of *a self-restrictive bureaucracy* attends to the respondents' thoughts that stale decision processes and rigidity in the organisation have been challenging in creating efficient healthcare systems and delivering care during the pandemic. The physicians described that this manifested in a passivity from the hospital management, and units, leaving personnel to navigate this new pandemic crisis terrain on their own without new directives or mandates. Physicians, for example, were told that they were not allowed to bypass the public procurement process despite the lack of protective equipment, which is a prime example of how the inflexibility of the bureaucratic system to adapt to a crisis endangered the health of the personnel.

> I thought that management would quickly try to order, or maybe collaborate locally so that they could get aprons or buy simple equipment from, what do I know, Biltema [edit: retail store], or rain ponchos from Stadium [edit: store for sports equipment]. So, management would improvise but still protect the personnel. But here, on the contrary, it was important not to deviate from the central guidelines that there was a public procurement for protective equipment, and you cannot do anything other than what was said, even if it risks the health of the personnel. - Q

The bureaucracy was described as "*restrictive*" and that the organisation had "*lost view of the care mission*". In this, questions arose among the interviewed physicians about who or what was the beneficiary of healthcare services, concluding that politics and money were thought to be prioritised over medical expertise and personnel health. Some describe that these points of view had been present for some time, but that the pandemic made it all the clearer to them.

> [. . .] and I hope somewhere that you [management and leadership above the first line manager] pinpoint a bit of this with the professional logic versus the management logic and that you expose the dysfunctional in what sometimes governs the care today; budget instead of the medical. - T

In response to the bureaucratic red tape, some physicians described situations where they experienced the bureaucracy responding to the crisis with agility, and management sidestepping the red tape to solve the issue. The transition to pandemic care was facilitated by giving mandates to the healthcare personnel to organise work. The common aspect of these situations was that physicians experienced them as efficient processes that shortened the distance between the hospital floor and the necessary decision-making which resulted in them being able to provide better and more efficient care.

> So, it was amazing to see how fast everything suddenly could happen when everything else is to be negotiated for two years and then you have to think and then you have to do some small SWOT analysis and now just BANG! In a few weeks like incredibly much happened. So, I and I know many with me, we were very impressed, it can be like this, we should have this healthcare all the time. - N

Passive OSH management
The theme *passive OSH management* reflects interviewees' experiences of an absence of action or follow-through from hospital management to provide a safe and healthy work environment for the personnel during the pandemic. The management was perceived as passive, not actively supporting the personnel's and patients' wellbeing and safety, nor being truthful in their communication with the personnel. Personnel felt a frustration of not being heard and that their fears and worries were ignored. Although respondents' experience of

transparency and truthfulness during the pandemic within the healthcare organisation differed between the interviewees, it was coherent in the fact that there were deficiencies in OHS management. Some of the physicians described that all trust in the organisation and the leadership was shattered as questions arose about who the management actually served. Several described there to be a "*hidden agenda*" and that the management was being untruthful with them. An "*us and them*" rhetoric was present in several of the interviews where management and, to some extent, politicians were considered to oppose safe and effective care.

> . . . the frustration over this non-transparent communication. If you were honest and said this, 'There is no protective equipment for you, that's why we do these things.' But to try to fool us into believing that we will not handle COVID patients, it's just stupid to think that we as physicians should believe something like that.- T

In several interviews, it was described that workplaces did not perform proper risk assessments and that in some cases, the managers conveyed the message that the unit would be mostly unaffected by the pandemic. In a paediatric department, for example, personnel were told that they did not need protection as children were not contagious. Meanwhile, parents could be standing next to the child, sneezing and coughing. In other cases, the risk assessment was performed inadequately, and an example is the psychiatric emergency room, where the screening can be misleading as patients may have difficulty answering the questions or do not notice when they have symptoms. Situations also arose where management told the healthcare personnel that a particular type of protective equipment was not necessary, while the employees had information from different sources that the equipment in question was not available. As a result, interviewees described being informed by management that it was safe to work without said protective equipment in order, the interviewees felt, to prevent a backlog of patients. The safety of the personnel was thus perceived as a non-issue.

The absence of systematic planning and clear information about staffing and schedules were interpreted by the physicians as not caring about the personnel. The fact that no information was given about, for example, how and when they would get time to recuperate was interpreted as a lack of prioritising the health and wellbeing of the personnel. Lack of routines regarding the use of protective equipment and physical distancing was also interpreted that the personnel was seen as expendables.

> Here it is obvious from my perspective that you see the healthcare personnel as cannon fodder, if one falls off, we pick another to that position (. . .) we [management] do not keep the group intact and set a zero-tolerance [for transmission], instead . . . if one gets sick, they get sick. (. . .) When we had cross-professional we have been sitting in one room, too close to each other. - C

It was described as problematic when managers were distant or "*hid at home*". Some even described that their management or board executives exclusively worked from home, which created an increased distance between the operative personnel and the management. The management disappeared into action plans and documentation and mainly was unavailable to the personnel.

It was described that physicians experienced it to be challenging to discuss decisions and routines established by hospital management. Concerns were ignored, and there was no feedback on suggestions and questions being raised by the healthcare personnel to the management. With the directives of working from home, the management was often absent and thus, the conventional channels for communication were no longer available. There sometimes was a feeling that everyone had to be loyal to the organisation, otherwise, they were accused of working against it. In some cases, a very strong loyalty emerged with the organisation, or at least with the unit and managers and colleagues on the floor.

This sometimes stifled an open dialogue both vertically and horizontally. Literature research presented to the management by personnel that contradicted the decisions of management were disregarded as intimidation propaganda and "fake news", even seen as inadequate and therefore did not need to be taken into consideration.

> If no one wants to listen to the facts, if no one wants to even discuss that maybe someone else has a different opinion, I may have, I'm wrong, I may not be right, but no one wants to discuss. This is what the authorities have decided, and you just have to keep quiet. - Q

Information overload
The fourth theme, *information overload*, reflects on the amount and rapid changing of information that made care provision difficult. The interviewed physicians experienced a massive inflow of information that was difficult to navigate. They sometimes spent hours scrolling through all the news and new directives without any overview.

> We had PM's that came out in the morning that was inaccurate at lunch, and that changed once again before the end of the day, so it was very tough mentally not knowing how to perform your job. - F

Several describe that it was much appreciated if someone took on the task to sort through the information and to make sure that the most central and essential information for their unit became readily available. This could be achieved by publishing the information on an internal web, by e-mailing, or by having daily meetings. It was appreciated if a first-line manager on site took responsibility for this. It was often the case that communication to the personnel highlighting the absence of information would have been very appreciated.

Another challenge in many cases was deciding which source of information to trust. Often there were no directives about this, and the physicians were left to decide for themselves what information was reliable and actionable.

> There is no knowledge more than individual case reports to act on, concerning how much we should act on national (guidelines). In our case, we have specialist associations or various disease control associations that have some form of national consensus on how to act. Should we go to them, or should we go to regional colleagues at highly specialised centres here or there? Decide which source of information we should trust and how we should handle it. – D

Discussion
This study explored 25 hospital-based physicians' experiences about the challenges in working conditions related to the provision of care during the initial response to the COVID-19 pandemic in 2020, when hospitals transitioned to pandemic care. The thematic analysis of the empirical material identified four themes: *involuntary self-management, a self-restricting bureaucracy, passive OSH management*, and *information overload*. The current study extends on previous studies by presenting physicians' experience of the pandemic, which is valuable to the preparedness for future crises. Moreover, it contributes valuable knowledge to the research field linking physicians working conditions to delivering safe care (Teoh *et al.*, 2021; Teoh and Hassard, 2020). This link is essential when preparedness plans are written and implemented.

It was evident in the empirical material that there were insufficient crisis standard-of-care protocols and management. Governmental agencies, including the healthcare system, did not have a preparedness plan that was detailed enough for a crisis. A similar result was found among emergency healthcare personnel in Iran who experienced an absence of guidance and protocol (Mohammadi *et al.*, 2021). Hertelendy *et al.* (2021) argue that the existence of such plans and protocols will provide early and decisive actions that, in turn, contributes to

reducing the moral distress of frontline healthcare personnel and to a coordinated and more effective response to a crisis. It was evident in the empirical material that preparedness and structure could have provided fewer challenges in the working conditions for physicians and that such plans could have eased the provision of care. In any future crisis management or preparedness plans, measures should be taken to reduce involuntary self-management, a self-restricting bureaucracy, passive OSH management, and information overload.

In the absence of a crisis management plan, the consequences of higher rates of distress and mental health issues among personnel due to the pressure to make on-the-spot decisions at the point of care, regarding moral and ethical dilemmas, which perhaps fall under the responsibility of management, will increase (Billings *et al.*, 2021; Hertelendy *et al.*, 2021). The interviewed physicians in this study described how they experienced a crisis that highlighted the dearth of preparedness and guidance, coordination, support, and concrete and accessible leadership. All of which are essential in management during a pandemic (Sriharan *et al.*, 2021). Consequently, healthcare personnel had to take on the primary responsibility of care provision and sometimes felt left alone, as described under the theme of involuntary self-management. In their review, Billings *et al.* (2021) showed that ethical dilemmas associated with being left to make decisions due to the absence of leadership in crisis management tend to prevail after the crisis. Thus, to give physicians the preconditions that guide provision of quality care in the state of crisis, comprehensive and structured crisis plans, including clear management structures, should be addressed at the political and hospital management level. Future research should address any negative consequences to physicians' mental health due to such involuntary managerial situations they may be placed in.

The interviewed physicians thought the bureaucracy was too restrictive, acting to fulfil its own purpose rather than facilitating a platform for trust and streamlining processes and bringing order to the healthcare systems. Although the healthcare bureaucracy was perceived as rigid and stale, hindering the provision of care, there were also positive examples in the interviews. These were the organisations that were run "bottom-up" and with medical knowledge at focus. In many of the interviews, it appears that physicians' experience with bureaucracy was that it hindered effective care, but at the same time felt there were also risks with a reduced bureaucracy (Peters, 2010). For instance, one of the respondents felt that when management deviated from decision routines and policies to make fast decisions, it led to reduced transparency in the decision-making process, including limiting risk assessments. There is an increased risk for groupthink in these "effective" decision-making processes that could entail risks for unsafe care and practices (Obrien *et al.*, 2021). Thus, there needs to be a balance between bureaucratic structures and professional governing, which shortens the decision paths in the provision of care. These results show the importance of including clear pathways of mandates and delegations in crisis management plans.

Sriharan *et al.* (2021) show in their review that leaders' communication skills, adaptive competencies, and abilities to engage others for collective actions are essential competencies in leaders during a crisis. Distributed leadership was found more adaptive to the pandemic situation (Sriharan *et al.*, 2021). In described situations where no clear mandate was given to physicians on how to participate or make decisions, they felt that they were left, involuntarily, to manage a situation that required managerial involvement. Furthermore, informal leadership was constructed when delegated leadership was lacking, which led to conflicts. Obrien *et al.* (2021) argue that action and behaviours from the front line and local leaders' initiatives matter more for healthcare personnel's wellbeing than policies and guidelines. From this empirical material, it became evident that organisations that included healthcare personnel in the decision-making process in response to the pandemic resulted in the workforce feeling more content and valued. Experiences from previous pandemics show that when there was precise alignment and shared decision making between senior managers and

frontline healthcare personnel, personnel reported feeling supported (Billings *et al.*, 2021). Furthermore, Leo *et al.* (2021) show in their review that including healthcare personnel in management decisions contributed to reduced burnout. The implications are that healthcare personnel should be included when crisis management are developed.

Previous literature also shows the importance of a present leadership that acknowledges healthcare personnel and supports their wellbeing (Billings *et al.*, 2021; Geerts *et al.*, 2021) and reduces the risk of occupational stress (Mohammadi *et al.*, 2021). In the interviews, several situations were described where OSH was neglected. Risk assessments were not made, and management even changed the routines or level of safety to adjust for access to protective equipment rather than to needs. Previous studies show that healthcare personnel felt less supported when occupational safety and personnel wellbeing was not a clear priority (Billings *et al.*, 2021; Mohammadi *et al.*, 2021) which was also evident in this study. To reflect these results and give a more in-depth understanding of the leadership and OSH management during the pandemic, further studies should address leaders at all levels in the healthcare sectors.

Looking ahead, the interviewed physicians had a desire that there should be a plan forward, tackling the so call care depth, i.e. the regular care that has been postponed due to the pandemic. They feared that they would be taken for granted by the employers, as shown in past situations, if personnel would continue to work to the capacity to cover any holes in the system. Literature suggests that the healthcare system needs to include adequate plans to handle recovery from the pandemic and to handle the post-COVID care depth (Geerts *et al.*, 2021). Recovery is a vital aspect for personnel to provide care after a crisis. Research should continue to study physicians' experiences of their work environment and their view on the organisation of healthcare and care provision in the continuation and aftermath of the COVID-19 pandemic.

Concurrent to the pressures noted above, many of the interviewed physicians also expressed a positive experience of the COVID-19 pandemic. They felt proud of the achievements made with small margins and noted that their collegial affinity had been strengthened. In these organisations, they describe that the whole group dug in, worked together, and found solutions to the problems that arose. These sentiments among healthcare personnel are in line with experiences from other pandemics (Billings *et al.*, 2021). Nevertheless, feelings of professional fulfilment, meaningfulness, gratitude, and a sense of greater professional confidence and competency do not render immunity to the high workload, pressure, and ethical dilemmas faced during a pandemic (Billings *et al.*, 2021; Kisely *et al.*, 2020).

Methodological discussion
The sampling was qualitative and purposive (Patton, 2002) and was not aimed at serving representative purposes. In total, 25 hospital-based physicians were interviewed. At this point, we sensed that closure was attained (Polit and Beck, 2004). The interviewed physicians were from different hospitals and had different hierarchical positions. The empirical findings in this study can be transformed and applied to similar situations in similar contexts (Polit and Beck, 2004).

In this study, we relate reliability and validity as conceptualisations of the trustworthiness and quality of the empirical analysis (Cypress, 2017). To assure rigour, the authors discussed the empirical material between them during the analytical process and cross-checked the data and interpretations. Dependability was achieved through the found methodological experience among the authors and experience of the context.

Conclusions and implications
The findings give valuable insights for actively preparing preparedness plans in the healthcare services for future emergencies that can secure the provision of care while

maintaining OHS. The main conclusions are that a crisis plan should be at place that focuses on preventing involuntary management in a crisis, inflexible bureaucracy, and information overload, thus supporting management in their responsibilities, and improving accessibility. In this preparedness plan, it would be valuable to include relevant clinical and organisation protocols, including decision structures and management, measures of risk assessment and occupational safety and maintenance of personnel wellbeing in such crisis management plans. As such, healthcare leadership can preserve quality care provision while under crisis.

Declarations

References

Billings, J., Ching, B.C.F., Gkofa, V., Greene, T. and Bloomfield, M. (2021), "Experiences of frontline healthcare workers and their views about support during COVID-19 and previous pandemics: a systematic review and qualitative meta-synthesis", *BMC Health Services Research*, Vol. 21 No. 1, p. 923.

Bondjers, K., Hyland, P., Roberts, N.P., Bisson, J.I., Willebrand, M. and Arnberg, F.K. (2019), "Validation of a clinician-administered diagnostic measure of ICD-11 PTSD and complex PTSD: the international trauma interview in a Swedish sample", *European Journal of Psychotraumatology*, Vol. 10 No. 1, 1665617.

Braithwaite, J. (2021), "Quality of care in the COVID-19 era: a global perspective", *IJQHC Communications*, Vol. 1 No. 1, p. lyab003.

Braun, V. and Clarke, V. (2006), "Using thematic analysis in psychology", *Qualitative Research in Psychology*, Vol. 3 No. 2, pp. 77-101.

Cypress, B.S. (2017), "Rigor or reliability and validity in qualitative research: perspectives, strategies, reconceptualization, and recommendations", *Dimensions of Critical Care Nursing*, Vol. 36 No. 4, pp. 253-263.

De Sio, S., Buomprisco, G., La Torre, G., Lapteva, E., Perri, R., Greco, E., Mucci and Cedrone, F. (2020), "The impact of COVID-19 on doctors' well-being: results of a web survey during the lockdown in Italy", *European Review for Medical and Pharmacological Sciences*, Vol. 24, pp. 7869-7879.

de Wit, K., Mercuri, M., Wallner, C., Clayton, N., Archambault, P., Ritchie, K., Gérin-Lajoie, C., Grey, C., Schwarts, L. and Chan, T. (2020), "Canadian emergency physician psychological distress and burnout during the first 10 weeks of COVID-19: a mixed-methods study", *Journal of the American College of Emergency Physicians Open*, Vol. 1 No. 5, pp. 1030-1038.

Eftekhar Ardebili, M., Naserbakht, M., Bernstein, C., Alazmani-Noodeh, F., Hakimi, H. and Ranjbar, H. (2021), "Healthcare providers experience of working during the COVID-19 pandemic: a qualitative study", *American Journal of Infection Control*, Vol. 49 No. 5, pp. 547-554.

Fusch, P.I. and Ness, L.R. (2015), "Are we there yet? Data saturation in qualitative research", *The Qualitative Report*, Vol. 20 No. 9, pp. 1408-1416.

Garcia Elorrio, E., Arrieta, J., Arce, H., Delgado, P., Malik, A.M., Orrego Villagran, C., Rincon, S., Sarabia, O., Tono, T., Hermida, J. and Ruelas, B. (2021), "The COVID-19 pandemic: a call to action for health systems in Latin America to strengthen quality of care", *International Journal for Quality in Health Care*, Vol. 33 No. 1, p. mzaa062.

Geerts, J.M., Kinnair, D., Taheri, P., Abraham, A., Ahn, J., Atun, R., Barberia, L., Best, N.J., Dandona, R., Abbas Dhahri, A., Emilsson, L., Free, J.R., Gardam, M., Geerts, W.H., Ihekweazu, C., Johnson, S., Kooijman, A., Lafontaine, A.T., Leshem, E., Lidstone-Jones, C., Loh, E., Lyons, O., Fouda Neel, K.A., Nyasulu, P.S., Razum, O., Sabourin, H., Schleifer Taylor, J., Sharifi, H., Stergiopoulos, V., Sutton, B., Wu, Z. and Bilodeau, M. (2021), "Guidance for health care leaders during the recovery stage of the COVID-19 pandemic: a consensus statement", *JAMA Network Open*, Vol. 4 No. 7, p. e2120295.

Guest, G., Bunce, A. and Johnson, L. (2006), "How many interviews are enough? an experiment with data saturation and variability", *Field Methods*, Vol. 18 No. 1, pp. 59-82.

Hagqvist, E., Ekberg, K., Lidwall, U., Landstad, B.J., Wilczek, A., Baathe, F. and Sjöström, M. (2022), "The Swedish HealthPhys Study: study description and prevalence of burnout and depression among physicians", *Chronic Stress*, Vol. 6, pp. 1-8.

Hertelendy, A.J., Ciottone, G.R., Mitchell, C.L., Gutberg, J. and Burkle, F.M. (2021), "Crisis standards of care in a pandemic: navigating the ethical, clinical, psychological and policy-making maelstrom", *International Journal for Quality in Health Care*, Vol. 33 No. 1, p. mzaa094.

Kisely, S., Warren, N., McMahon, L., Dalais, C., Henry, I. and Siskind, D. (2020), "Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis", *BMJ*, Vol. 369, m1642, doi: 10.1136/bmj.m1642.

Leo, C.G., Sabina, S., Tumolo, M.R., Bodini, A., Ponzini, G., Sabato, E. and Mincarone, P. (2021), "Burnout among healthcare workers in the COVID 19 era: a review of the existing literature", *Frontiers in Public Health*, Vol. 9, 750529, doi: 10.3389/fpubh.2021.750529.

Løvseth, L.T. and de Lange, A.H. (2020), "Integrating organisation of healthcare services, workers' wellbeing, and quality of care: an introduction to the system-based perspective of healthy healthcare", in Løvseth, L.T. and de Lange, A.H. (Eds), *Integrating the Organization of Health Services, Worker Wellbeing and Quality of Care. Towards Healthy Healthcare*, Springer, Cham.

Mohammadi, F., Tehranineshat, B., Bijani, M. and Khaleghi, A.A. (2021), "Management of COVID-19-related challenges faced by EMS personnel: a qualitative study", *BMC Emergency Medicine*, Vol. 21 No. 1, p. 95.

Montgomery, A., van der Doef, M., Panagopoulou, E. and Leiter, M.P. (2020), *Connecting Health Care Worker Well-Being, Patient Safety and Organizational Change: the Triple Challange*, Springer, Cham.

Morgantini, L.A., Naha, U., Wang, H., Francavilla, S., Acar, Ö., Flores, J.M., Crivellaro, S., Moreira, D., Abern, M., Eklund, M., Vigneswaran, H.T. and Vigneswaran, S.M. (2020), "Factors contributing to healthcare professional burnout during the COVID-19 pandemic: a rapid turnaround global survey", *PLoS One*, Vol. 15 No. 9, PMID 32881887, doi: 10.1371/journal.pone.0238217.

Neilson, M. and Leatherman, S. (2021), "Quality of care should be a core consideration in health systems recovery from COVID-19", *IJQHC Communications*, Vol. 1 No. 1, p. lyab005.

Obrien, N., Flott, K. and Durkin, M. (2021), "COVID-19: leadership on the frontline is what matters when we support healthcare workers", *International Journal for Quality in Health Care*, Vol. 33 No. 1, doi: 10.1093/intqhc/mzaa153.

Parkinson, M.D. (2018), "The healthy health care workplace: a competitive advantage", *Current Cardiology Reports*, Vol. 20 No. 10, pp. 1-8.

Patton, M.Q. (2002), *Qualitative Research and Evaluation Methods*, SAGE Publications, London.

Peters, B.G. (2010), *The Politics of Bureaucracy: an Introduction to Comparative Public Administration*, Routledge, London.

Polit, D.F. and Beck, C.T. (2004), *Nursing Research, Principles and Methods*, 7th ed., Lippincott Williams & Wilkins, Philadelphia, PA.

Restauri, N. and Sheridan, A.D. (2020), "Burnout and posttraumatic stress disorder in the coronavirus disease 2019 (COVID-19) pandemic: intersection, impact, and interventions", *Journal of the American College of Radiology*, Vol. 17 No. 7, pp. 921-926.

Sriharan, A., Hertelendy, A.J., Banaszak-Holl, J., Fleig-Palmer, M.M., Mitchell, C., Nigam, A., Gutberg, J., Rapp, D.J. and Singer, S.J. (2021), "Public health and health sector crisis leadership during pandemics: a review of the medical and business literature", *Medical Care Research and Review*, in press, 10775587211039200, doi: 10.1177/10775587211039201.

Teoh, K.R.H. and Hassard, J. (2020), "Linking organisational factors and patient care: does healthcare workers' well-being matter?", in Montgomery, A., Panagopoulou, E., Kehoe, I. and Valkanos, E. (Eds), *Connecting Healthcare Worker Well-Being, Patient Safety and Organisational Change : the Triple Challenge*, Springer Nature, Cham.

Teoh, K.R.H., Hassard, J. and Cox, T. (2021), "Doctors' working conditions, wellbeing and hospital quality of care: a multilevel analysis", *Safety Science*, Vol. 135, 105115.

Wei, E.K., Long, T. and Katz, M.H. (2021), "Nine lessons learned from the COVID-19 pandemic for improving hospital care and health care delivery", *JAMA Internal Medicine*, Vol. 181 No. 9, pp. 1161-1163.

World Health Organization (2020), *Maintaining Essential Health Services: Operational Guidance for the COVID-19 Context*, World Health Organization, No. WHO/2019-nCoV/essential_health _services/2020.2.

Corresponding author
Emma Hagqvist can be contacted at: emma.hagqvist@ki.se