

Bringing risk back in: managers' prioritization of the work environment during the pandemic

Cathrine Reineholm, Christian Ståhl and Daniel Lundqvist
*Department of Behavioural Sciences and Learning, Linköping University,
Linköping, Sweden and
HELIX Competence Centre, Linköping University, Linköping, Sweden*

Abstract

Purpose – The purpose of the paper is to investigate managers' experiences of managing work environment and risks during the Covid-19 pandemic and to explore how managers might use these experiences to develop future risk management.

Design/methodology/approach – Semi-structured interviews were carried out with 18 Swedish managers at different hierarchical levels working in 11 different organizations. A directed content analysis was carried out, informed by theory on risk management.

Findings – The results point to the pandemic as a societal crisis which workplaces needed to manage through large means of improvisation. Regular work environment routines were put to the test, and several deficiencies in the work environment and risk management were identified. Organizations that handle occupational safety and risks on a daily basis through established routines were less affected and could easier adjust work environment and risk management, compared to organizations prioritizing the social and organizational work environment, which had to re-prioritize and start paying more attention to the physical work environment and to bring risk management into their daily routines.

Originality/value – The study offers an account of how managers in different labor market sectors in Sweden have acted in the midst of the pandemic by handling real-time crises, how these experiences can be used for engaging in retrospective learning and how this may imply changes to their prospective risk management.

Keywords Leaders, Systematic work environment management, Risk management, Prospective risk management, Covid-19, Sweden

Paper type Research paper

Introduction

During the Covid-19 pandemic, several governments have introduced restrictions and periods of lockdown in order to prevent the spread of the virus. This has had an enormous impact on workplaces and has implied new challenges for managers to maintain operations while adhering to regulations and restrictions (Eurofond, 2021).

In contrast to many other countries, Sweden used a softer strategy as a response to the pandemic. Rather than issuing a lockdown, great responsibility was put on citizens and employers to secure physical distancing to prevent contagion. Preschools and elementary schools have been open throughout the pandemic, as well as stores and shopping malls, although the government issued limitations in March 2020 regarding a maximum number of customers in stores and guests in restaurants, and later on also limitations in opening hours.

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Funding: This research was funded by Forte: Swedish Research Council for Health, Working Life and Welfare [Award number: 2019-00851].



Other recommendations included working from home if possible, which was mandated for governmental employees unless their work required physical presence in the workplace. Online classes were recommended for students in upper secondary school/high school, and in universities (Public Health Agency of Sweden, 2022). In the state sector, the share of employees working from home ranged between 52 and 73% between 2020 and 2021, while this was significantly less common among other public sector workers (municipal workers and healthcare employees), ranging from 11 to 36%; in the private sector, the share of employees working from home ranged between 29 and 42% (Statistics Sweden, 2021). Unlike many countries, Sweden has thus had many people working on-site, but with restrictions enforced through a specific pandemic legislation. Consequently, the challenges for managers in Sweden have presumably been different from countries where lockdown has simply prevented workplaces from maintaining their business (e.g. Appelgren, 2021; Ipsen *et al.*, 2020).

Risk is in general described as an incipient threat or exposure to danger, and according to Lupton (2013) it also involves imagining the consequences. To prevent risks and to promote health at work, organizations in Europe are obliged to systematically assess and evaluate the work environment according to European Union (2022). In Sweden, extensive national legislation established by the Swedish Work Environment Authority regulates employee health and safety. The legal basis for the work environment management is the Work Environment Act (SFS, 1977:1160), with a purpose to prevent occupational illness and accidents, and to ensure a good work environment. Although the employer has the main responsibility for the work environment, employers and employees cooperate in creating a good work environment. The responsibility for the systematic work environment management is put on managers, delegated mainly to first-line managers, and the basic activities are described in the provision for Systematic Work Environment Management (AFS 2001:1 Eng). This management includes all aspects of the work environment and shall, besides being systematic and planned, also be a natural part of everyday work in the organization. The systematic work environment management is a continuous process, often portrayed as a cycle, consisting of four recurring activities: (1) examination, (2) assessment of revealed risks, (3) addressing risks, and (4) follow-up, where all parts are connected and required (AFS 2001:1 Eng).

Although legislation regarding the work environment in Sweden is extensive, there are several organizations that do not accomplish their legal commitments (Hellman *et al.*, 2019). Possible explanations or reasons for this are complexities in the implementation of regulations, which is influenced by power relations embedded in occupational health and safety systems, resources of inspectorates, and possibilities for worker representation (MacEachen *et al.*, 2016); lack of time; and that provisions and policy documents are abstract with little practical guidance (Hellman *et al.*, 2019). A Swedish study by Frick (2014) found that most organizations had the documents for the systematic work environment management (e.g. task allocation, risk assessments, action plans) but these procedures were not always comprehensive nor implemented. The main problem is that managers rarely have enough time and resources for the work environment management (Frick, 2014). In addition to work environment regulations, managers are also obliged to follow various laws and regulations from other authorities related to their activities and their organization. The pandemic may have led to increased attention to managing emergent risks, since it has encompassed new types of situations and restrictions which was difficult to anticipate and plan for. When the work situation changes, employers are responsible for considering all possible risks, to act and reduce the risks (Carvalhais *et al.*, 2021). However, most managers lack competence regarding crisis management, probably because Sweden has been hit by few major crises or disasters during the last century (Hugelius *et al.*, 2021). On the other hand, the study by Lethin *et al.* (2021) showed that Swedish care staff reported more support from the management and clear guidelines during the Covid-19 pandemic compared to care staff in Italy, Germany and the UK.

Organizing risk in uncertain times

Systematic work environment management has shown to be more effective for technical risks and risk assessments than for psychosocial and organizational risks (Frick, 2014). This is in line with Janetzke and Ertel (2017), who claim that organizational and social risks are underrepresented in risk management, despite an increasing awareness of organizational and social risks at the workplace. To identify and measure risks are not enough, as risks always have to be handled systematically (Molin *et al.*, 2021). For organizations, organizational and social hazards are challenging to manage as it often includes work re-design (Schuller, 2020). Risk management, especially regarding the physical work environment, is usually carried out as relatively mundane and routine activities in many organizations, especially for sectors where most work environment risks are related to psychosocial issues rather than ergonomic or chemical risks. However, workers under pressure make more mistakes, and a sound psychosocial safety climate is helpful for preventing accidents by focusing on the causes behind the causes (Bronkhorst, 2015); further, physical and psychosocial safety climates are interlinked and influence one another (McLinton *et al.*, 2019). Risk is inherently related to *uncertainty* where there is a need to anticipate and plan for risks to prevent accidents. Consequently, risks that emerge unexpectedly or through external factors which are outside the organization's control are difficult to manage. The Covid-19 pandemic has undoubtedly challenged our ways of dealing with risks and crises (Rouleau *et al.*, 2020). In a study on employees within social, health- and elderly care in Denmark during the pandemic, communication of guidelines were found to be clear. However, although guidelines may be clear, the study indicates that the guidelines were not sufficient since the pandemic caused frequent changes in restrictions and regulations (Nabe-Nielsen *et al.*, 2021).

In a literature review on risk organization, Hardy *et al.* (2020) make a useful distinction between three different "modes", where apart from the *prospective* mode (preventing calculated accidents from happening), organizations are also involved in *real-time* risk organization – i.e. managing risks as they appear, especially such risks which could not be predicted – as well as *retrospective* risk organization, which concerns how organizations learn to manage risks in the future in light of experiences of managing unpredicted risks. These modes together form a risk cycle, where each mode has its own sets of tensions which needs to be managed (Hardy *et al.*, 2020). The prospective mode is characterized by a tension between normalizing and problematizing practices, i.e. whether attempts are made to calculate future risks through referencing existing knowledge, or if the ability for experts to predict risks is questioned. The real-time mode is characterized by a tension between controlling and improvising practices, i.e. to which extent organizations lean towards top-down actions to maintain oversight, or towards letting employees manage emerging problems based on their ability to recognize issues in day-to-day operations. The retrospective mode, finally, is characterized by a tension between learning and attributing blame, where the former tries to extract the experiences which may be useful to manage similar issues better in the future, while the latter is concerned with avoiding liability by pointing out specific persons responsible.

Research on risk management need to consider all these three modes and the tensions they come with. Hardy *et al.* (2020) also point out how a risk cycle can start from any of the three modes, and that the pandemic has caused the cycle to spin faster because of the rapid developments. These cycles can further be expected to start from the real-time mode, since the risks could not be anticipated. It may be noted that the risk cycle described by Hardy *et al.* (2020) share many similarities with the systematic work environment management cycle (AFS 2001:1 Eng). Studying the transitions between these modes and how organizations manage the tensions inherent in them is therefore a relevant topic to explore.

The purpose with this study was to investigate managers' experiences of managing work environment and risks during the Covid-19 pandemic and to explore how managers will use these experiences to develop future risk management.

Methods

Interviews were carried out with 18 managers at different hierarchical levels working in 11 different organizations. The selection strategy aimed to attain a varied sample of managers from organizations of different sizes and sectors, representing both blue-collar and white-collar employees. The aim of this study was not to generalize the findings to the included sectors, but to include a suitable variation of experiences, including managers from different contexts. Originally developed for a research project on work environment measures, the semi-structured open-ended interview guide included questions about the managers' background (hierarchical position, managerial experience, number of employees etc.), managerial work tasks and responsibilities, work environment, management of work environment and risks. For this particular study, the interview guide was complemented with questions on the effects of and adjustments made due to the pandemic. The interviews were conducted remotely via Zoom or Teams (and one over the phone, due to technical issues) between September 2020 and May 2021. They varied between 20 and 35 min and were recorded and transcribed verbatim. Written and oral information about the study was presented in advance. Before the interview started, additional oral information about the study was given and informed consent was obtained from the managers. The managers were assured that statements were treated confidentially and that they could withdraw from the study at any time.

Sample

The managers in this study (11 women, 7 men) worked in different areas and occupations in both the public and private sectors. Preliminary results were also presented at a seminar where 19 representatives from organizations participating in the main research project participated, where some of them had been interviewed for this particular study. The seminar served two aims: (1) as an opportunity to check the credibility of the preliminary analyses, and (2) to initiate a discussion about the results to develop the analysis. Notes were taken by the authors, and discussions and reflections from the seminar have been incorporated into the results presented in this article.

Data analysis

Initially the data analysis had an inductive and descriptive approach. As a first step, the interview transcripts were read in their entirety to get a broader understanding of the material. The second step was to import the transcripts into the QSR NVivo software program. Descriptive nodes, derived from the interview questions, were used to get a first overall picture of each interview: "Impact/adaptation on business and operations", "Work environment", "Work environment management", and "Lessons learned". Next, a directed content analysis (Hsieh and Shannon, 2005) was performed, using a literature review by Hardy *et al.* (2020) as a starting point. The material was then re-organized and coded based on the risk cycle described in the review, and variants of external risk management. The three critical issues described in the risk cycle outline how organizations can organize risk management in different stages: in real-time, retrospectively, or prospectively. These stages helped us to sort and organize the data and create categories.

Ethical considerations

The study was approved by the Swedish Ethical Review Authority. The statements have been treated confidentially and all data has been stored according to the General Data Protection Regulation (EU, 2016/679).

Results

The results are presented in two sections. The first section describes how the managers handled the sudden need for real-time risk organizing that took place during the pandemic, with focus on how the organizations and their employees were affected by regulations and restrictions. It also describes what prioritizations, adjustments of the organization of work, and changes in the work environment and risk management that were carried out. The second section emphasizes lessons learned by focusing on how the experiences from the real-time risk management during the pandemic may influence future risk management, i.e. the implications for prospective risk management.

Introducing real-time risk management

This first section is concerned with how the pandemic affected the various organizations and how the managers discussed the translation from regular systematic work environment to real-time risk management. Real-time risks included the risk for contagion, but also employees' workload and implementing safety measures without compromising the work environment or the quality of services or products delivered.

A general finding was that work environment management have gained more attention and awareness in the occupational areas studied following the pandemic. The risk for contagion and the public recommendations and restrictions have however affected the managers and their organizations differently depending on area and professions (see [Table 1](#)). Most of the managers in the study had their employees working on-site since they worked in occupations that required physical presence, while white-collar organizations were recommended to work from home. One organization, within the cultural sector, was unable to maintain operations due to government restrictions and the employees were temporarily laid off. Several of the managers experienced an increased pressure on their business in terms of more to do, but also that work tasks got more complicated than usual. Almost all of the managers described their work and responsibilities during the pandemic as challenging.

Participants in the seminar described how the beginning of the pandemic caused something of a paralyzing effect, where the new situation left the organization at a loss of how to respond. Government restrictions were issued quickly and required an immediate response. This was followed by a period of trial-and-error with much improvisation regarding the development of adequate safety measures and procedures. The situation was later described by a representative from a municipality as more ordered, when routines had settled, fewer employees were sick and government restrictions were experienced as more coherent.

Managing top-down decisions through improvisation. For most of the managers, there were seldom problems or difficulties to follow regulations and directions under ordinary circumstances. The managers generally felt that they had support from their organization regarding the work environment and other regulations from different authorities. However, during the pandemic some of the managers said they had to adjust their work assignments and work tasks, or improvise, in order to keep their operative ability as safely as possible. For instance, managers within education and childcare were obliged to follow the decision from the government to keep schools open and were forced to take responsibility for that decision. This decision was strictly top-down, although its implications needed to be managed with a high amount of improvisation. In periods of high sick leave among the employees, managers sometimes had to re-organize and move around teachers between departments and classes to be able to keep teaching going even if there was a shortage of staff, but also to create a sustainable structure to prevent stress among the teachers. Such experiences and improvising skills proved valuable during the pandemic.

Area	Sector	Fully open	Limited/Core	Lockdown	Participating managers		Employees		Lay off
					<i>n</i>	Level	On site	Remote	
Elementary school	Public	X			1	FM	X	X	
Preschool	Public	X			1	FM	X	X	
Elderly care	Public	X			1	FM	X	X	
Governmental service	Public		X		1	MM	X	X	X
	Public		X		1	FM	X	X	X
Municipal service	Public		X		2	FM	X	X	
Fire and rescue	Public		X		1	FM	X	X	
Cultural service	Public			X	1	FM	X	X	X
	Private	X			3	MM	X	X	
Industry	Private				2	FM	X	X	
	Private	X			1	FM	X	X	
Store	Private	X			1	MM	X	X	
Hotel and restaurant	Private	X			1	MM	X	X	X
Recruitment and staffing	Private	X			1	MM	X	X	X
	Private	X			1	FM	X	X	X

Note(s): FM = Firstline manager, MM = Middle manager

Table 1. Overview of area, sector, participating managers ($N = 18$), and their employees

Regardless of the pandemic and the struggle to keep teaching going with limited staff, the ordinary systematic work environment management had to be carried out, which caused stress and frustration. One principal described how the Swedish Work Environment Authority requested a self-inspection plan, which was hard to prioritize when they barely had teachers in the classrooms.

During the pandemic, guidelines and restrictions from the authorities changed several times and changes often came into force immediately, for example limitations of customers in stores and restaurants, the number of passengers and mandatory face masks in public transport, and the degree or urgency of remote work. To spread information effectively and to be ensured that everyone was up to date with all rules and guidelines was described as a challenge by many of the managers. This was especially difficult in shift work, where managers were concerned whether everyone had received all information. Many managers, e.g. within education, care, and the service sector, were also responsible for providing information to external parties such as parents, relatives, or customers. If the manager got support from the top management and the information was uniform, the managers perceived that they appeared more credible.

At the seminar, one manager described how communication was a challenge because of the vast and sometimes contradictory information in social media, and that this made it difficult to maintain a coherent policy. Further, this was complicated due to the inherent uncertainty regarding the pandemic, where not even the experts agreed or could be relied upon to have adequate knowledge of how to manage the virus.

Physical high-risk occupations. For some of the organizations, safety and risk management are constantly in focus, for example within manufacturing industry and fire and rescue service. Within the manufacturing industry, risk management has always been a high priority as the employees often handle dangerous machines, hazardous substances or chemicals, and the environment can be both noisy and “dirty”. According to one of the manufacturing industry managers, the work environment in the factory was very good with a high security level. During the pandemic, production carried on as usual and the regular risk management was extended to “corona-secure” the workplace, for example through physical distancing during breaks and in locker rooms, and using safety equipment when they had to work in close proximity. Employees were also limited to only operate within their own teams. Other than that, the pandemic had only affected their operative ability to a very small degree or not at all. In production, almost all blue-collar workers worked on-site as usual apart from physical distancing, while some of the white-collar workers worked from home.

For the fire and rescue services, the pandemic caused periods of high pressure, especially during the peaks of the pandemic waves. As the fire and rescue services must be open and prepared for emergency calls, a solution has been to limit or shut down parts of their public assignments, such as education and inspections. Similar adjustments regarding physical distance as in the manufacturing industry were applied at the fire station. The firefighters had to keep their distance in the workshops, during physical activity and practical training as well as in all common areas. On emergency calls, the firefighters in general have the safety equipment they need. Although firefighters in general have a high degree of safety thinking, one manager said that the pandemic had raised their levels of safety, and they had become more careful and more aware of the risk of infection during rescue operations.

Introducing risk to human services. For the managers working in human services, one challenge was that besides the work environment regulations and other governmental regulations related to their area, they also had to stay up-to-date with the latest recommendations and restrictions from the Swedish Public Health Agency. Most organizations within human services such as schools, childcare, health and social care were mandated to stay open, despite periods of high infection and sickness rates. Managers had to secure that the work environment was safe for both students/clients and the employees

for elderly care services, the lack of hygienic equipment such as masks and visors, plastic gloves, aprons, and other protective clothing increased the risk of spreading the infection between clients and departments as well as among the employees, especially in the beginning of the pandemic.

Within childcare and preschools, risk assessments have gained much attention due to the pandemic. Besides ordinary systematic work environment management, managers also had to be prepared for new guidelines or regulations from the Swedish Public Health Agency, or other authorities. When there was a new announcement, this had to be addressed and discussed. However, as soon as there was a confirmed infection, the manager had to put everything else aside:

That's how it is, you get a call or a text message that we have an infected parent or employee with a confirmed infection, then you have to put everything else aside and go there and be present and part of the processes, so they feel they have support. (Manager 6)

Even though restrictions have added more work tasks and new routines for many of the managers, some felt that the restrictions also helped them to maintain a safe work environment, e.g. in stores, where stickers on the floor and plastic sheets at the checkouts protected the employees and helped customers to keep their distance. One manager described how the stores were crowded, especially in the beginning of the pandemic when many people started hoarding. Few customers kept physical distance which caused anxiety among the employees. After the Public Health Agency issued restrictions that limited the number of people in public places and stores, managers found keeping a safe environment easier.

The challenges of remote work. For many white-collar occupations, the recommendations from the Public Health Agency were to work from home. This was mandated for governmental employees, while private companies saw the recommendations as guidelines rather than as mandatory rules. They communicated to their employees that working from home was an option rather than a requirement, which allowed those in risk groups or employees that wanted to work from home the possibility to do that. This solution also served to keep the numbers of employees on-site down. A manager in a private high-tech company described that the employees had separate offices and could maintain physical distance. When work tasks required employees to be on-site, such as tests, laboratory work, or simulations where they needed special equipment or a designated work area, physical distancing was a must. Another dilemma for some of the white-collar managers was that all employees were not able to work from home due to personal reasons, such as not having a good work environment at home. In such cases, managers solved the problem by letting some of the employees work on-site specific times.

Before the pandemic, most of the white-collar managers had more focus on and prioritized the organizational and social work environment. One manager in a recruitment and staffing organization described that they had made several previous investments regarding the physical environment: their premises were newly built or renovated, they had height-adjustable desks, and the technological equipment they needed. Thus, the physical part of the working environment management at the workplace felt "cleared". However, when offices were shut down and employees were told to work from home, they needed to re-prioritize the physical environment. According to one of the managers it felt more natural to discuss the physical work environment in the workplace, where there are designated office spaces with necessary and suitable equipment. Investigating the physical work environment in someone's private home could be both problematic and delicate. Demanding employees to open up their private homes for ergonomic inspections felt intruding, even if it could be done digitally. Nonetheless, managers are required to perform ergonomic inspections according to the law.

Another risk with having employees working from home was the blurred boundary between the employer's responsibility and the individual's responsibility. Although many of the workplaces allowed employees to bring office equipment home, there were differences regarding the financial support from the organization. In general, managers from public organizations had limited resources to invest in employees' home office equipment and furniture while managers in private organizations had more opportunities and resources:

Everyone really got to spend time and money on creating a functional work environment at home as well, and at least as good at home as in the office in terms of the physical work environment. (Manager 18)

All managers with employees working from home agreed on the lack of social relations being a big challenge. Not being able to meet your employees in person put new demands on the managers. Listening and picking up early signals was easier in the coffee room or through small talk in the corridor, and less so on the screen. In order to promote the social work environment and well-being, managers tried to compensate the lack of personal contact by communicating often with the employees and highlighted the importance of getting in touch if something was wrong or did not work. On the positive side, many of the managers experienced that their employees got more work done at home as it was quieter and also facilitated a better balance in the "life puzzle".

Lay-offs and lockdowns. Two of the managers worked in sectors which completely or partially had to shut down during the pandemic: hotels and theaters. Within the cultural sector, theaters, concert halls and cinemas were efficiently prevented from maintaining their business due to government restrictions, and many employees lost their jobs. One theater manager described the situation as: "*we have a business ban*". The hotel and restaurant businesses were not closed, but were subject to several restrictions, such as limited numbers of guests and open hours. When travel declined, many hotel bookings were canceled, causing a price war in order to attract guests. One hotel manager said that 90% of the hotel bookings were canceled when the government tightened the restrictions and shut down amusement parks and other tourist attractions which resulted in them having to lay off employees. To keep parts of the business going they tried new ventures, such as offering take-away food in the restaurant.

From real-time to retrospective risk management: lessons learned

In this second section, focus is on how the managers discussed the translation from real-time risk management to future management of work environment and risks, and what lessons can be learnt from the pandemic.

Learning or blaming? The restrictions and pandemic regulations have affected different organizations in different ways. For some, the restrictions have clarified and helped managers to organize and prioritize work towards employees, but also when meeting students, customers, clients or relatives. For employees working with elderly people, hygiene has always been an important issue, but due to the pandemic and the increased risk of infections, hygiene routines have become stricter:

I think that we have been positively affected, because we have in a completely different way tackled this with the hygiene routines in a way that we did not do before. So, now we work more actively // I have not had a single case of corona among my employees. (Manager 11)

The restrictions regarding physical distance in stores have helped the managers to avoid or at least decrease the risk to expose their employees for infections. Hence, many businesses have learned how to manage the type of high-risk situation a pandemic implies, and how to adapt the physical environment to decrease the risk of spreading disease.

For organizations within tourism or entertainment, the restrictions had harsh consequences. All cultural businesses such as theaters and cinemas were closed down and employees were sent home. For hotels and restaurants, some perceived that the restrictions and regulations were more confusing than helpful, not least because they changed quickly and were at some points considered contradictory – e.g. having different restrictions for the number of guests depending on whether or not there was musical entertainment in the restaurant. One manager described that they decided to temporarily lay off some of the employees when the hotel bookings were decreased by half, which caused a lot of stress and anxiety among all employees. A few months later the government changed the rules for compensation and indemnity, and they found out that it had been more profitable to not lay off employees even though there were not work tasks for everyone:

Lessons learned? I do not know if there are any lessons to be learned from this. The restaurant and hotel industry has always been good at working with whatever we are faced with. Lessons may be learned by others . . . we can only laugh at all the restrictions that contradict themselves. (Manager 3)

In such cases, the opportunities for learning were experienced as rather limited. As for attributing blame for the crisis, apart from some managers' irritation with government restrictions, they generally appeared to accept the pandemic as a situation which is out of anybody's control and therefore not a crisis which could be blamed on anyone. A crisis of this magnitude is something to be managed as a society.

Transitioning to prospective risk management. As the pandemic was still ongoing during the data collection, it was difficult for the managers to foresee what experiences or lessons they will be able to include when they prepare and organize for future risks. However, some topics came up as important insights. One example was the importance of uniform and coherent information from the management. As employees often were confronted with questions from students, clients, parents, and relatives in their daily work, managers need to ensure that all relevant information reach everyone. Coherent information and communication throughout the organization was also mentioned as of particular importance at the seminar since unvetted information and opinions were spread by other sources such as different news channels and social media. Clear information and unambiguous answers can reduce concern among employees as well as among all residents in the society, although such communication is difficult when uncertainty is high. The reliance on expert knowledge generally took a turn during the pandemic when scientists differed in their opinions on how to best manage the virus, and when different authorities issued conflicting guidelines.

Improved routines in terms of safety and risk thinking were also mentioned as an important insight for future risk management, where the strengthened rules and routines will be kept in place. For the fire and rescue services, the protection level has been increased and they pay more attention to safety and risks, especially on emergency calls. According to the manager for the fire and rescue services, the firefighters always work safely, but on the scene of an accident, fire or other emergency, they may stretch instructions and routines in order to solve the problem. However, the pandemic forced them to also consider the risk of becoming infected and ill, and thus to strictly follow rules and instructions.

Further, almost all managers emphasized the importance of updated and accessible work environment documents and routines. Before the pandemic, it was quite common that personnel handbooks or work environment regulations were either incomplete, or had not been updated for a long time. During the pandemic, many of the managers reviewed handbooks and guidelines and updated their handbooks, which are now easily accessible at the workplace. The pandemic has hence made things happen since it instilled a sense of urgency to work environment matters.

Another lesson or experience from the pandemic was the increased competence in digital solutions. In general, digital meetings have worked out well and proven to be more effective for some types of meetings. It facilitates for managers to jump in and out of meetings, saving time, travel expenses, as well as the environment. Digital meetings are thus one thing that some of the managers may continue with, at least to a certain degree. One representative at the seminar also noted how the digital solutions and opportunities for remote work increased accessibility to the workplace, which was especially valuable for people with disabilities. The risks and downsides were that digital meetings were considered more exhausting as one tends to sit for a long time, but also the difficulties to create relationships at a distance, especially with new employees.

Some of the white collar-managers said that they probably will combine on-site and remote work in the future. Work on-site promotes social relations, creativity and team-building, which many of them missed during the pandemic, while working from home felt more effective and eased the balance between work and private life for the employees. How work will be executed and where may cause new challenges for organizations when preparing and analyzing risks prospectively.

Being a manager during a major societal crisis gave them the opportunity to see how crisis management worked in practice, and in some cases how it did not work. According to one preschool manager, a positive learning experience was to watch how crisis management was put into action, from head department and municipal politicians down to the classroom. After a few incidents with confirmed infections among employees, students or their relatives, managers felt more secure of what to do and how to act the next time it would happen.

Nonetheless, the pandemic has also shown shortcomings in crisis management regarding the organizational and social work environment, for which there was no preparedness. Many employees had to work very hard during the pandemic, and several also experienced very stressful and traumatic situations. Some employees were temporarily laid off, and were sent home without knowing for how long, or whether they still had a job. When society returns to normal, managers may probably have to handle employees that have been harmed during the pandemic in various ways, e.g. increased workload and stress as well as feelings of loneliness and isolation. One manager described that he was afraid that many organizations lacked plans for how to handle this situation:

There is no preparedness, and it makes me a little scared. It also makes me a little worried that we are talking about a healthcare debt, and there is also a work environment debt that we build up and we have to make preparations for that now. Otherwise we will have organizations and companies that will not be able to handle it, and we will also have more employees who are, like after a war, extremely traumatized and have difficulties. (Manager 10)

The managers' work environment and risk management during the pandemic, based on the three modes by [Hardy et al. \(2020\)](#), are summarized in [Table 2](#).

Discussion

The results from this study point to the pandemic as a societal crisis which workplaces needed to manage through large means of improvisation. Using the risk cycle by [Hardy et al. \(2020\)](#) as a structure for describing risk management, we can see how regular work environment routines were put to the test and in many cases proved inadequate or were poorly adapted to a rapidly emerging crisis. This first stage, which is a transition from regular systematic work environment to a real-time risk management mode, was challenging because the prospective routines were insufficient for dealing with the problems the pandemic came with. One challenge was how to even address the issue properly, with problematization becoming a risk of its own in light of uncertainty and disagreements, and

	Real-time	Retrospective	Prospective
Physical high risk	Adding Covid-19 into current risk and safety practice, mostly in terms of physical distance	Confirmation of previous and Covid-specific risk and safety management The importance of maintaining unified information	Improved risk and safety management Access to documents and routines
Human services	Improving current risk and safety management, mostly in terms of risk assessments, physical distance and stricter hygiene routines	The importance of risk assessments, strict routines regarding hygiene and equipment The importance of maintaining unified information	Implementation of improved hygiene routines Access to documents and routines
Remote work	Shifting focus from the work environment of the office to that of the home. Current risk and safety management include ergonomics, stress, managerial and social support	Rediscovering the importance of the physical work environment and ergonomics, while discovering the benefits and challenges of digitalized work. Increased focus on social relations and managerial support	Implementation of digital work and a digital work environment
Lay-off, lockdown	Adding Covid-19 into current risk and safety practice, mostly in terms of physical distance. Added emphasis on management of stress and anxiety of remaining staff (and laid-off)	The unpreparedness of society in handling crisis situations	N/A

Table 2.
Overview of the results based on the three modes

where not even experts could agree on the right courses of action. Politicization of risk makes it hard to build consensus, although such processes may be necessary to organize novel risks in the future. With such amounts of insecurity, however, particularly the earlier phases of the pandemic were characterized by improvisation, while later phases saw emerging routines and increasing top-down management. The results indicate little controlling practices early in the pandemic, i.e. that managers make authoritative decisions on how to handle a situation, which is otherwise a common immediate response to crises since improvisation can be seen as challenges to authority (Hardy *et al.*, 2020). Since the pandemic was a highly unexpected situation and involved unforeseen risks, there were more room for improvisation where routines were developed on the floor, leading up to more codified knowledge as time passed.

The results in our study also showed differences regarding organizations' work environment management in terms of different prioritized areas or subjects. Managers within high-risk occupations work systematically with the physical work environment on a daily basis and were thereby ahead in risk-thinking and risk and safety management compared to managers in low-risk occupations. This may be due to guidelines and instructions for the systematic work environment management and risk management being more suited for identifying and assessing physical or technical risks, compared to social and organizational risks (Frick, 2014; Janetzke and Ertel, 2017; Schuller, 2020). Before the pandemic, some of the managers felt that they had accomplished all commitments regarding the physical environment at their workplaces, but when employees were sent home they were forced to re-think and figure out how to customize appropriate home-based offices. Following ordinary routines and conducting ergonomic inspections, in accordance with the provision for Systematic Work Environment Management (AFS 2001:1 Eng), was considered more

problematic in employees' private homes. Another managerial challenge with remote work was the lack of social relations. To promote the organizational and social work environment some managers increased the amount of communication and support to reduce isolation and loneliness, but also to prevent work overload and overtime, similar to what was noted by [Pataki-Bittó and Kun \(2022\)](#). Working from home may thus include both advantages and risks as found in the study by [Ipsen *et al.* \(2021\)](#). The most appreciated advantages with working from home were increased work-life balance, work efficiency and control, while the main disadvantages were home office constraints, work uncertainty and inadequate tools.

Risk assessments, detailed instructions and routines to avoid or limit risks have always been common within human services, although such routines have not always been fully adhered to in practice. In the wake of the pandemic, improved hygiene routines are now carried out without a second thought by the employees, indicating a significant change in risk awareness. Similar lessons were found in the study by [Marshall *et al.* \(2021\)](#) on care home managers in England, where the pandemic led to regularly reviewed risk and infection controls. The study also showed that the shortage of safety and hygienic equipment during the pandemic made the managers establish new and local supply chains to secure access to equipment.

The transition from a real-time mode to a retrospective mode was only beginning to take shape in the study, as the crisis was still ongoing at the time of the interviews. There were therefore limited opportunities for thinking critically and to learn from the emerging real-time risk organization while the pandemic continued. Later in the data collection, we could observe more ordered approaches, which indicates that a certain learning was occurring. For instance, the managers highlighted the importance of having updated and accessible documents regarding the work environment and other regulations. As found by [Frick \(2014\)](#), organizations may have the documents but often incomplete or expired versions, mainly due to managers' lack of time. During the pandemic, these documents became important and useful tools rather than papers in a binder, helping the managers to navigate in their work environment and risk management. This also increased the relevance of such documents, as they progressed from being mere formalities completed to please a system, into being connected to activities with a clear purpose. Work environment and risk management have hence gained more attention during the pandemic, which may result in improved routines. If systematic work environment management was not usually a priority due to lack of time and resources ([Frick, 2014](#)), the pandemic have placed this higher on the agenda, not least because managers could see the benefits of implementing systematic work environment practices.

Since the pandemic was considered a novel situation which affected everyone, we could see few, if any, attempts to attribute blame, apart from some discontent with conflicting recommendations from authorities. Rather, the sense of urgency and having to front the situation as a society called for cooperation and learning rather than defending stakes and interests. Transition from a retrospective to a prospective mode, however, requires as a next step that we are able to maintain this opportunity for learning without blaming, and to normalize the lessons learnt into new understandings of risk management. For such learning, organizations need to offer managers the necessary time and resources to handle the work environment debts created by the pandemic, so that the sense of purpose does not dissipate when regular concerns about cost efficiency return.

Limitations and future research

The study focused solely on managers, while employees' perspectives are lacking, which can be considered a limitation. Future studies including managers, employees as well as work environment and/or union representatives are needed to give a broader picture of risk and work environment management. Moreover, the interviews were carried out during a period of

nine months, thus during different waves or peaks of the pandemic. In terms of the trustworthiness of the study (Lincoln and Guba, 1985), we arranged a seminar where preliminary results were reported back to participants to assure an adequate credibility of how we conceptualized the material. This also strengthened the confirmability of the findings, i.e. making sure that the results are supported by the data. The results are likely to be transferable to similar contexts, i.e. how managers in other companies or in other contexts handled the pandemic; the focus of the study however allowed for descriptions of potentially unique situations, since the pandemic came with unforeseen challenges to work environment management. This could be considered a strength of the study.

Conclusions

The results of this study illustrate how the pandemic has led organizations to identify several deficiencies in their work environment and risk management. The organizations that handle occupational safety and risks on a daily basis through established routines were less affected and could easier adjust work environment and risk management, compared to organizations prioritizing the social and organizational work environment, which had to reprioritize and start paying more attention to the physical work environment and to bring risk management into their daily routines. This study also offers an account of how managers in different labor market sectors have acted in the midst of the pandemic by handling real-time crises, how these experiences can be used for engaging in retrospective learning and how this may imply changes to their prospective risk management.

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Corresponding author

Cathrine Reineholm can be contacted at: cathrine.reineholm@liu.se

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