The COVID-19 crisis, mental health of healthcare workers and trade union actions

A literature review

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1. Introduction

The COVID-19 crisis had a severe impact on the already strained mental health of healthcare workers [HCWs]. Trade unions, workers and hospitals need a better understanding of what measures and initiatives can be effective to mitigate these effects, in order to avoid future pandemics putting hospitals and their workers under similar pressure, and to address the more structural mental health problems in the sector. The project COMET (COvid-19 crisis, MEntal health of healthcare workers and Trade union actions) analyses the role and contribution of industrial relations in mitigating the negative impact of the COVID-19 crisis on the mental health of HCWs, as well as in reducing structural mental health problems in the sector.

The work of healthcare workers in hospitals has always carried serious mental health risks. Common mental illnesses include for instance depression, anxiety disorders and post-traumatic stress disorder. Occupation-specific factors affecting mental health risks include high workloads, substantial individual responsibilities, dealing with the suffering of patients and their relatives, and the threat of physical violence. The COVID-19 crisis has further increased mental health risks among healthcare workers. As noted by De Maeseneer et al (2021), and acknowledging the risk of generalisation, research tends to emphasise the mental *illness* aspect of mental health over the dimension related to mental *well-being* - a comment also reasonably applicable to the present study.

COMET's main ambition is to improve knowledge on how COVID-19-related mental health problems among healthcare workers can be prevented or treated, and in particular which role trade unions and professional organisations that represent health workers in collective bargaining, government lobbying and social dialogue in hospitals can play in this respect. At the moment, very little systematic information and analysis on this question is available, pointing to a lack of academic research and policy-oriented analysis in this field.

In this report we outline the results of a systematic literature review on:

(i) mental health risks among HCWs and occupation-specific determinants;
(ii) the effects of COVID-19 on mental health risks of HCWs;
(iii) strategies and initiatives of trade unions and hospitals in dealing with mental health risks among HCWs.

The outcomes of this literature study will be integrated into future phases of the projects, specifically the survey questionnaire and case study investigation addressing organisational and trade union actions in more detail. Detailed reports containing the results of these studies are available for download on our project website, accessible at: https://aias-hsi.uva.nl/en/projects-a-z/comet/comet.html.

The report is organised as follows. In the next section, we provide a rationale for our process of identifying relevant literature and discuss the sources that were incorporated. Section three presents our findings on the mental health risks experienced by healthcare workers in general, and within this section we also examine the literature concerning the impact of COVID-19 on the mental health of HCWs. Moving on to section four, we delve into the literature on strategies, initiatives and experiences of trade unions, hospitals and other stakeholders. Lastly, in section five, we provide a reflection on the implications of these findings, with a specific focus on trade unions.

2. Identification of the literature

The starting point for the literature review is the compilation of published studies that investigate and elucidate the mental health challenges faced by healthcare workers, the repercussions of the COVID-19 pandemic, and the involvement of hospitals and trade unions in addressing mental health issues. To create the sample, we started with an electronic database search for relevant studies in the period between 2015 and 2023. The electronic databases that were used to obtain the relevant literature were ISI Web of Science, Scopus and Google scholar. Key words used included 'anxiety', 'burnout', 'COVID-19', 'depression', 'distress', 'healthcare sector', 'healthcare workers', 'health workers', 'hospitals', 'hospital staff', 'mental health', 'mental wellbeing', 'nurses', 'nursing staff', 'organisation', 'organisational', 'pandemic', 'psychosocial risks', 'stress', 'stressors', 'trade union', 'union'.

Additionally, our search encompassed the exploration of references within empirical studies, aiming to identify other studies that might provide insights into the mental health of healthcare workers.

The original search was completed in February 2023 and complemented with relevant studies until November 2023. This report outlines the findings from a sample of 20 relevant studies on mental health issues among HCWs, 30 relevant studies with a focus on mental health risk during the COVID-19 pandemic and 50 relevant studies on the involvement of hospitals and trade unions in addressing mental health issues.

3. Mental health risks of healthcare workers

A person's mental well-being at any specific moment is shaped by the interplay of past and present experiences along with various risk and protective factors. The determinants of mental health encompass a multifaceted interaction of biological, environmental, cultural, economic, health system, social, occupational, familial, psychological, and individual factors (World Health Organisation, 2012; De Maeseneer et al., 2021). In the context of this study, we focus on occupation-specific factors influencing mental health, calling for an emphasis on the workplace.

The work of healthcare workers [HCWs] in hospitals has always entailed serious mental health risks (McVicar 2003; Adolhe et al. 2015; Mohanty et al, 2019; Sovold et al., 2021). In 2013, on average 53% of workers in the hospital sector were exposed to mental wellbeing risk factors, including severe time pressure or overload of work, violence or threat of violence, harassment or bullying (OECD, 2020: 111).[1]

Mental health risks are related to several dimensions in their job demands (which require effort and can have physical or psychological costs) and resources (which support the performance of work tasks and can have a positive impact on health and well-being). Job demands and resources can be classified in various categories and diverse ways. However, it is important to recognise that these categorisation systems are not discrete and exhibit a certain degree of interrelation in their meaning. In what follows, we emphasise job demands and resources that hold particular relevance within the context of healthcare workers.

Job demands - The responsibilities of healthcare workers often involve tasks that entail significant quantitative, cognitive, emotional and/or physical demands. These demands may manifest in various

[1] Although data has to be interpreted with caution as samples are small, the OECD data show high cross-country varieties. High mental risk exposures (more than 70% of the workers) are reported for France, United Kingdom, Finland and Sweden.

ways, including heavy workloads, intense or rapid task execution, substantial individual responsibility, the necessity of taking difficult decisions, and the emotional toll of addressing the suffering of patients and their families. Workers in the health sectors face particularly high levels of emotional demands and work intensity (see for example Eurofound, 2017, 2019). Moreover, healthcare workers regularly face unfavourable work time demands, such as extended working hours, shift work or the requirement to work during unconventional hours. Healthcare workers also often work in demanding physical work environments, such as isolated workplaces and with a constant need to take preventive and protective measures. These types of heightened job demands experienced by healthcare workers and their adverse impact on mental well-being have been thoroughly documented over time (see e.g. Jimmieson et al., 2017; Johnson et al, 2018; Eurofound, 2017, 2019; Scanlan and Still, 2019). In many healthcare occupations, there is an overrepresentation of female workers who frequently encounter additional challenges in balancing their professional responsibilities with significant (unpaid) domestic workloads (Leo et al., 2021).

In addition, the health sector records the highest proportion of workers experiencing adverse social behaviours at the workplace (Eurofound, 2017). These behaviours include threats, humiliating behaviours, verbal abuse, unwanted sexual attention, harassment/bullying, and physical violence. Exposure to such behaviours has a significantly adverse impact on health and well-being (see for instance Eurofound, 2017; Mento et al., 2020).

Job resources – Whereas job demands refer to aspects of the job that require sustained physical or psychological effort and have psychological and physiological costs, resources are aspects that reduce job demands or their costs, i.e. resources to cope with demands. These resources can for instance come in the form of social support, autonomy in working time and tasks, recognition, workplace voice and appropriate pay. Workplace conditions can impact job resources, crucial for overall well-being, underscoring the importance of integrating them into preventive measures.

The quality of the social environment, or social support, is an essential job resource that can balance the negative impact of high job demands (such as emotional or quantitative demands) (Brooks et al., 2018; Kisely et al., 2020). Although healthcare workers' support from colleagues is relatively high, their overall social resources are relatively low (Eurofound, 2017, 2019), which may be related to a perceived lack of interest on behalf of the management regarding the (emotional) state of healthcare workers (Koinis et al., 2015; Eurofound, 2023).

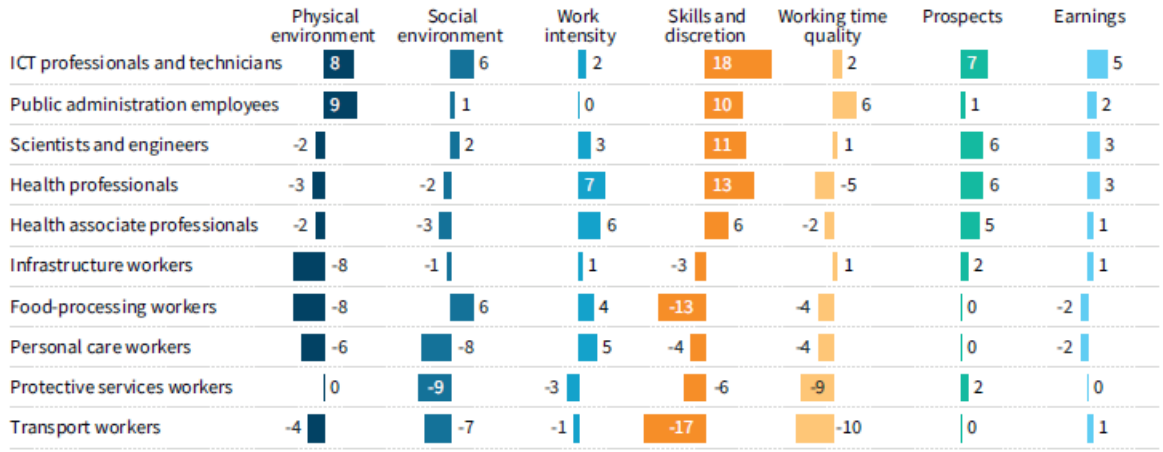
Individual job autonomy in, for example, working time and speed and order of tasks is an important job resource to deal with high demands in the workplace. However, low levels of freedom to make decisions about work are associated with an increased risk of stress, emotional fatigue and anxiety, and in the longer run possibly in depression, burnouts and other serious mental health conditions among healthcare workers (De Hert, 2020; Niedhammer et al., 2021).

Remuneration can also be a job resource. However, dissatisfaction with wages is an important factor reducing the attractiveness of the health professions. Remuneration of hospital nurses is around the national average in most countries. Nurses' remuneration in 2019 ranged from about 10% lower to 20% higher than the national average wage. Differences in wage levels are more significant among doctors (Eurofound, 2022a).

In sum, mental health risks are related to workloads, high levels of individual responsibility, the taking of difficult decisions, dealing with the suffering of patients and their relatives, the threat of physical violence and other aspects. Factors like these frequently result in high levels of stress, emotional fatigue and anxiety, and in the longer run possibly in depression, burnouts and other serious mental

health conditions. The result, in turn, is absenteeism and workers leaving the healthcare sector to go to other sectors or become inactive. In this way, mental health risks have negative effects both on HCWs and on the functioning of hospitals, and ultimately on the provision of good and accessible healthcare to the population. As outlined in this section, and also illustrated in figure 1, it was observed that healthcare workers' work demands are relatively high in terms of work intensity and work time demands. Conversely, crucial resources like social support and earnings (especially for nurses) are of limited quality.

Figure 1 Job quality of selected critical occupations in relation to the workforce average



Notes: *Values on the right side of each axis represent better-than-average scores while values to the left represent worse-than-average scores, except for Work intensity, for which the reverse is the case.*
Source: *EWCS 2015*

Source: Eurofound, 2021, p. 59.

In recent decades, and especially since the 2008 financial crisis, mental health pressures in Europe increased with the further increase of workload in the healthcare and long-term care sectors; a result of, among other factors, austerity measures leading to understaffing and changing (new public) management methods (see e.g. Keune et al. 2020; Llorens Serrano et al., 2022.). Healthcare reforms in European countries changed the sector's landscape, with the expansion of private healthcare provision and increased fragmentation of working conditions and interest representation in the sector (Eurofound, 2022b). Generally speaking, this led to a deterioration of working conditions and a devaluation of work (Llorens Serrano et al., 2022), as well as growing dissatisfaction and protest in, for instance, the hospital sector with insufficient recognition of mental health problems and a lack of measures to prevent such problems from occurring or to treat them (Keune et al., 2020). High stress levels, job-dissatisfaction and low psychological empowerment among nurses seem to be important factors for them leaving their jobs, and so do factors in managerial style and supervisory support (Halter et al, 2017; World Health Organisation, 2018: 30). Health and care sectors in European countries are struggling with 'vicious circles' in reproducing dynamics of staff shortages – workloads – absenteeism/ and leaving jobs.

Mental health problems are primarily problems for the workers themselves. They have negative effects for the functioning of hospitals as well, for instance with absenteeism and workers leaving the healthcare sector to go to other sectors or become inactive. Ultimately, they put further pressures on the provision of good and accessible healthcare to the population and the attractiveness of the nursing profession and other medical professions among the next generations of students and workers (for example World Health Organisation, 2020).

The effects of the COVID-19 crisis

This already strained sector then had to confront the COVID-19 crisis, in which healthcare workers were on the frontline and received broad recognition as *the* essential workers. The crisis elevated workloads to extreme levels, intensified the 'traditional' mental health risks and added several new ones: fear for one's own health and that of co-workers, fear of contaminating loved ones, having to distance oneself from loved ones, high mortality rates among patients, sometimes deaths of colleagues. Many healthcare workers had no choice but to continue working physically at their workplace to provide services for others, at great risk to their own health and that of their families. Healthcare workers, and medical support staff in particular, indeed experienced a substantially higher risk of becoming infected and of experiencing severe COVID-19, defined as being hospitalised or deceased (United Nations, 2020; Mutambudzi et al., 2021).

Recent research shows that the mental health impact of the COVID-19 crisis on nurses and other HCWs was substantial (Cabarkapa et al, 2020; Lai et al., 2020; Muller et al., 2020; Spoorthy, 2020; Stelnicki et al., 2020; Tan et al., 2020; Busch et al., 2021; Kovner et al., 2021; Olaya et al., 2021; Riedel et al., 2021; Sampaio et al. 2021; Varghese et al. 2021). In terms of prevalence, the results highlight significant effects in terms of anxiety, stress, depression, PTSD and insomnia among HCWs from different parts of the world (Du et al., 2020; Luceño-Moreno et al., 2020; Rossi et al., 2020; Bassi et al., 2021; Young et al., 2021; Chinvararak et al., 2022). These are especially the workers who were directly involved with COVID-19 patients in hospital, but also the colleagues in other departments of the hospital and non-clinical health workers (Franklin and Gkiouleka, 2021) and in other sectors like nursing homes and hospices. Further, Sampaio et al. (2021) – in a cohort study among nurses in Portugal – points not only to immediate impacts on mental health, but also to longer term impacts: some groups found a balance (by 'psychological adaption') but others came to suffer from more severe mental health conditions with long-lasting risks.

A large body of literature addresses individual workers' characteristics in relation to mental health risk in times of COVID-19. Generally, investigations find that female workers, young workers and lower educated workers were at higher risks (e.g. Franklin and Gkiouleka, 2021; Nicolaou et al. 2021). There is also evidence that mental health problems among healthcare workers during the pandemic were related to occupational groups. The group of nurses in particular was vulnerable to the development of depression during the COVID-19 pandemic, and required extra support to strengthen their resilience and commitment (Saeed et al. 2021; Sessions et al. 2021; Palese et al., 2022). Llop-Gironés et al. (2021) point to the vulnerability of many nurses worldwide regarding their poor working and employment conditions. Other more vulnerable workers' groups that are mentioned in the literature are nursing assistants, medical assistants and social workers (Prasad et al., 2021). Depression was more common among young healthcare workers, potentially due to more difficult and demanding work duties in the context of relatively low professional experience (Saeed et al., 2021). The sense of being valued by organisations has been identified as a mitigating factor in reducing the likelihood of burnout among healthcare workers. (Prasad et al., 2021).

Several studies, however, have voiced their concerns about the low methodological quality of evaluation studies and mental health outcomes that were conducted during the COVID-19 pandemic (see e.g. Lamb, 2020; Muller et al., 2020; De Maeseneer et al., 2021). Low response rates, convenience sampling, self-reported responses, response bias, lack of control groups and a limited number of longitudinal studies inhibit our understanding of whether or how strong the effect of the pandemic was on healthcare workers as compared to other groups, or changed compared to pre-pandemic

levels. Another limitation is that mental health research, in general, tends to emphasise the mental illness dimension, while mental well-being is under-represented.

Determinants of mental health outcomes include risk factors related to fear of the unknown, threats to one's own mortality, stigma from society and/or family members, working long hours and limited personal, social and/or institutional support (see e.g. Cabarkapa et al., 2020; Muller et al., 2020; De Maeseneer et al., 2021; Li et al., 2022; Eurofound, 2023). Among workers, a significant proportion of health and care workers received support from colleagues, yet they had one of the lowest percentages receiving support from managers (Eurofound, 2023). Negative ratings of workplace relations, organisational support, organisational preparedness, access to supplies, training in proper PPE were associated with higher scores on adverse mental health outcomes (Havei et al., 2021; Kovner et al., 2021). Overall, “Health and care workers had the poorest job quality overall during the pandemic” (Eurofound, 2023, pp. 4, also illustrated in figure 2).

Figure 2 Job quality index, by critical worker group, EU, 2021 (%)

Note: *The numbers at the start and end of each bar indicate the total percentage of workers in strained and resourced jobs, respectively.*

Source: Eurofound, 2023, p. 11

An interesting discussion is mentioned in De Maeseneer et al (2021) about the relevance of distinguishing between burnout, PTSD and moral injury. As highlighted in their report, during significant health crises like a pandemic, the workload of healthcare workers inevitably surges, potentially surpassing available resources. This challenge may be exacerbated by illnesses and, in certain instances, the loss of lives. In such conditions, there is a persistent risk of what is commonly referred to as burnout – a state characterised by "feelings of energy depletion or exhaustion; increased mental distance from one’s job, or feelings of negativism or cynicism related to one's job; and reduced professional efficacy” (World Health Organisation, 2019).

The term 'moral injury' lacks a universally agreed definition, but it has been conceptualised as "a character wound that stems from a betrayal of justice by a person of authority in a high-stakes situation" (Shay, 2014). Moral injury can lead to consequences such as re-experiencing traumatic

events and engaging in avoidance or numbing behaviours. Moral injury is triggered by acts that violate deeply-held moral values and causes guilt, shame and anger.

Distinguishing between conditions like burnout and moral injury is crucial because using different terminology reframes the issues, as emphasised by Dean et al. (2019) and De Maeseneer et al. (2021). Traditionally, burnout implies that the problem lies within the individual, suggesting a deficiency in resources or resilience to cope with the work environment. However, this perspective is evolving, and burnout is increasingly viewed as a problem rooted in the work environment. In contrast, moral injury places the problem at the organisational level and implicates leadership from the outset.

Impact beyond the individual

Obviously, apart from the strong negative effects on healthcare workers, the pandemic also further increased the negative effects on the functioning of hospitals, increased the danger of workers leaving the healthcare sector and made the provision of good and accessible healthcare to the population more difficult during and after the pandemic (Eurofound, 2022a, 2023, see also figure 3 below). The pandemic exacerbated staff shortages in the healthcare sectors of many countries, especially shortages of nurses and specialised doctors (Eurofound, 2021, 2023).

Sometimes working methods were changed, for example remote working for nurses in mental health care (Foye et al. 2021), which may have affected the quality of work and quality of care services. Several factors played a role in turnover intentions for healthcare workers during the pandemic, such as fear of COVID-19 exposure, psychological responses to stress, bad working conditions, and lack of organisational support (Poon et al., 2022). Additional responses in terms of preventive measures, guidance and support for healthcare workers, and (frontline) nurses in particular, turned out to be a necessity to lessen the impact and prevent healthcare workers from leaving the sector (Labrague and de Los Santos, 2020). In 2022, the OECD highlighted the fact that the COVID-19 pandemic had worsened the pre-existing skills shortages in the healthcare workforce across various countries. (OECD/ILO, 2022). They recommended that the engagement of social partners in skills policies within the healthcare sector was crucial; to ensure that skills intelligence is well-suited for policy implementation and to foster support for the policy response among stakeholders (OECD/ILO, 2022: 8). 'Skills gaps and labour shortages are particularly costly in the health workforce, since they can increase the length of patient waiting lists and waiting times and result in poor patient care, for instance due to increased burnouts and job dissatisfaction among medical staff (OECD/ILO, 2022; Kane et al., 2007; Jun et al., 2021).

Figure 3 Sectoral challenges in the wake of the COVID-19 pandemic identified by sectoral social partners

	Workers	Employers
Hospitals and healthcare	Staff shortages Need for recognition of COVID-19 as an occupational disease Privatisation Stress (partly caused by staff shortages) Low pay	Staff shortages Mental health problems Attractiveness of jobs

Source: Eurofound, 2023, p. 27

4. Strategies and initiatives of trade unions, hospitals and other stakeholders

In the previous section, we explored the literature on the mental health risks of healthcare workers. This section explores the literature on interventions and measures that were taken during the COVID-19 pandemic to prevent and mitigate these risks. An important note here is that many articles and reports point to the need and importance of taking actions in times of COVID-19 and possible new health crises. However, there is far less literature available about the different types of interventions and policies that were implemented during the COVID-19 crisis, let alone about the experiences and effectiveness of these programs.

To support the mental well-being of healthcare workers, the workplace serves as a crucial context for implementing appropriate interventions. These interventions operate on various levels, encompassing policy-level initiatives (e.g., economic and social measures), organisational strategies, task-oriented approaches and individual-focused interventions. Additionally, interventions are categorised as primary, secondary or tertiary prevention (De Maeseneer et al., 2021). Primary interventions are proactive, aiming to prevent exposure to known risk factors and forestall the emergence of harmful effects. Primary prevention may also enhance an individual's tolerance or resilience to better manage or cope with stress factors. Secondary prevention efforts precede the onset of mental health issues that could impair functioning. These interventions aim to reverse, reduce, or slow the progression of ill-health and preclinical conditions, or to enhance individual resources. Such secondary approaches may involve early detection and treatment to diminish the severity or duration of symptoms and impede the further development of more serious and potentially disabling conditions. Lastly, tertiary interventions are rehabilitative in nature, seeking to alleviate negative impacts and address existing damage. Tertiary prevention efforts focus on treating and managing diagnosed conditions, minimising their impact on daily functioning. Examples of tertiary interventions include rehabilitation, relapse prevention, providing access to resources and support and facilitating reintegration into the workforce.

In 2020, the World Health Organisation (WHO) published a guide with targeted recommendations to protect, support and empower health professionals at the individual, management, organisational and system levels in the context of the COVID-19 pandemic. According to the WHO, health workers' mental health should be prioritised for both long-term occupational capacity and short-term crisis response' (WHO, 2020: 8). Regarding the mental health of health workers who were threatened during COVID-19, the WHO formulates five recommendations aimed at managers of health organisations (World Health Organisation, 2020: 8).

1. Assess and minimise additional COVID-19-related occupational psychosocial risks for stress.
2. Ensure access to and provision of mental health and psychosocial support services (MHPSS) for health workers involved in the COVID-19 response, which facilitates suicide prevention through early identification. Provide basic psychosocial support for first-line distress care, with at least one trained MHPSS worker for every health facility to manage priority conditions.
3. Promote help-seeking and provide evidence-based resources on basic psychosocial skills for health workers. Establish approaches to discuss challenges and dilemmas, organise schedules to include breaks, minimise other work-related stress and activate peer support.
4. Train health leads in basic psychosocial skills and regular supportive monitoring of staff mental wellbeing, including protection from COVID-19-related stress (Inter-Agency Standing Committee, 2020).

5. Ensure that health workers with mental health conditions originating from COVID-19 have the same rights to treatment and access to care as the general population.

In other chapters, the WHO also addresses recommendations to stakeholders; namely asking employers to plan workloads to ensure appropriate working hours (guided by national law and collective agreements, if available) and enforced rest periods and breaks to prevent burnout and error (World Health Organisation: 2020: 16; see also World Health Organisation, 2018). And the recommendation to policymakers to provide female healthcare workers with support for domestic tasks and care responsibilities in their private lives (World Health Organisation, 2020: 21).

Where the WHO (2020) follows a multi-stakeholder approach and some integration of interventions at several levels, in the remainder of this section we will analyse literature that is more targeted to stakeholders who are specifically related to certain levels in dealing with the problem of the mental health of healthcare workers (during pandemics), i.e. at the individual worker's level, organisational level of (departments of) hospitals or other health providers, collective bargaining at sectoral and company level, and national and societal level.

Individual-level interventions

There is a substantial body of literature advocating for the provision of individualised support for workers in the realm of mental health awareness and interventions, aiming to enhance their ability to navigate mental health challenges in the workplace and cultivate individual resilience and empowerment (World Health Organisation, 2022). The WHO specifically recommends the training of managers to effectively support the mental health of their employees, emphasising the need to enhance managers' knowledge, attitudes and behaviours in relation to mental health (World Health Organisation, 2022). In the context of healthcare workers, the literature underscores the importance of encouraging self-care through activities such as physical exercise, relaxation, maintaining a balanced diet, ensuring good sleep, seeking family support and participating in reflective small group discussions. These recommendations apply generally and are particularly pertinent in the context of the challenges posed by the COVID-19 pandemic (Leo et al., 2021; Heath et al., 2020). Available evidence indicates that workplaces should prioritise addressing employees' fundamental needs, encompassing safety, making feasible adjustments to eating and sleeping arrangements and integrating warmth, empathetic listening and validation (World Health Organisation, 2011; Kisely et al., 2020; De Maeseneer et al., 2021).

Nurses, in particular, are recognised as being a crucial target group for disseminating information and organising support programs focused on healthy coping skills and therapeutic interventions to mitigate the adverse effects of the COVID-19 pandemic (Riedel et al., 2021). Buselli et al. (2021) note that only a few countries introduced specific psychological support intervention protocols for healthcare workers during the pandemic, with some preventive programs emerging in university-associated hospitals, underscoring the importance of multidisciplinary collaboration. According to the World Health Organization (2022), there is ambiguity regarding whether psychosocial support for at-risk workers experiencing emotional distress should be delivered within or outside the workplace (World Health Organisation, 2022: 50). While employers in the healthcare sector can contribute to raising awareness and organising/financing infrastructure for individual support, their responsibilities are constrained.

Recognising that mental health challenges for healthcare workers stem from work- and job-related factors, addressing the issue necessitates a broader approach beyond the individual worker's level. Muller et al. (2020) posit that healthcare workers exhibit a lesser need for individual support but a greater need for social support from the organisation to alleviate stress.

Organisational level

A first source of mental health problems at the time of the COVID-19 pandemic lay in a fear for one's own health and worries about adequate protection against contamination for healthcare workers' colleagues and families (Kisely et al., 2020; Shanafelt et al., 2020 (see also Table 1); De Maeseneer et al., 2021). Hospitals and other healthcare organisations were responsible for giving their personnel access to appropriate protective equipment and testing facilities that met the quality requirements. In addition, the pandemic pressured professional and organizational challenges to provide competent and good care. This required regular information, communication and training meetings on how to deal with (a lot of) Covid-19 patients in crisis situations (World Health Organisation, 2022; Muller et al., 2020). Challenging and traumatic clinical/professional situations and emotional demands during crises furthermore require team/peer support in crisis situations (Diver et al., 2021) or a buddy system (Rieckert et al., 2021) and regular small group meetings to address wellbeing among health care workers. Also, monitoring the health status of workers in pandemic-related departments was important during the outbreak and further periods in crises situations (Rieckert et al., 2021; Zhu et al., 2020).

Table1 Requests From Health Care Professionals to Their Organisation during the pandemic

Request	Principal desire	Concerns	Key components of response
Hear me	Listen to and act on health care professionals' expert perspective and frontline experience and understand and address their concerns to the extent that organizations and leaders are able	Uncertainty whether leaders recognize the most pressing concerns of frontline health care professionals and whether local physician expertise regarding infection control, critical care, emergency medicine, and mental health is being appropriately harnessed to develop organization-specific responses	Create an array of input and feedback channels (listening groups, email suggestion box, town halls, leaders visiting hospital units) and make certain that the voice of health care professionals is part of the decision-making process
Protect me	Reduce the risk of health care professionals acquiring the infection and/or being a portal of transmission to family members	Concern about access to appropriate personal protective equipment, taking home infection to family members, and not having rapid access to testing through occupational health if needed	Provide adequate personal protective equipment, rapid access to occupational health with efficient evaluation and testing if symptoms warrant, information and resources to avoid taking the infection home to family members, and accommodation to health care professionals at high risk because of age or health conditions
Prepare me	Provide the training and support that allows provision of high-quality care to patients	Concern about not being able to provide competent nursing/medical care if deployed to new area (eg, all nurses will have to be intensive care unit nurses) and about rapidly changing information/communication challenges	Provide rapid training to support a basic, critical knowledge base and appropriate backup and access to experts Clear and unambiguous communication must acknowledge that everyone is experiencing novel challenges and decisions, everyone needs to rely on each other in this time, individuals should ask for help when they need it, no one needs to make difficult decisions alone, and we are all in this together
Support me	Provide support that acknowledges human limitations in a time of extreme work hours, uncertainty, and intense exposure to critically ill patients	Need for support for personal and family needs as work hours and demands increase and schools and daycare closures occur	Provide support for physical needs, including access to healthy meals and hydration while working, lodging for individuals on rapid-cycle shifts who do not live in close proximity to the hospital, transportation assistance for sleep-deprived workers, and assistance with other tasks, and provide support for childcare needs Provide support for emotional and psychologic needs for all, including psychologic first aid deployed via webinars and delivered directly to each unit (topics may include dealing with anxiety and insomnia, practicing self-care, supporting each other, and support for moral distress), and provide individual support for those with greater distress
Care for me	Provide holistic support for the individual and their family should they need to be quarantined	Uncertainty that the organization will support/take care of personal or family needs if the health care professional develops infection	Provide lodging support for individuals living apart from their families, support for tangible needs (eg, food, childcare), check-ins and emotional support, and paid time off if quarantine is necessary

Source: Shanafelt et al., 2020, p. 2134

Health organisations also have a role in more preventive measures and healthier working conditions, healthy jobs and organisational solutions to reduce mental health risks. The WHO, in its 'Guidelines on mental health at work', recommends that 'organisational interventions that address psychosocial risk factors, for example reductions to workload and schedule changes or improvement in communication and teamwork, may be considered for health workers to reduce emotional distress and improve work-related outcomes' (World Health Organisation 2022: 17-19). Nevertheless, it must be noted that the WHO also reports at the same time that there is limited scientific evidence in the existing literature supporting the effectiveness of these organisational measures.

Some academic studies highlight that the most effective interventions for bolstering the mental health of the health workforce are those implemented at the workplace level. These interventions take place within the organisation, led by senior management and managerial staff, and address factors at the team and organisational levels (De Brier et al., 2020; Kisely et al., 2020; San Juan et al., 2020). Factors include communication and training, infection control, employee workload, psychological support for employees, and personal support for employees. Several studies developed overviews to inform planners, managers and team leaders and were likely to be helpful, or unhelpful, in supporting staff during the COVID-19 pandemic (see for instance Billings et al., 2020; Dewey et al., 2020; Greenberg et al., 2020; Kisely et al., 2020; Shanafelt et al., 2020; Walton et al., 2020).

Comparative case study research from 13 healthcare providers over the world found that strong organisational level direction, including engaged leadership, and the input, feedback and engagement of frontline staff were the two main facilitators in implementing initiatives designed to improve healthcare worker health and wellbeing during the COVID-19 pandemic (O'Brien et al., 2022). According to the authors, such organisational policies require a comprehensive, multi-level and multi-modal approach to address multiple aspects of health and wellbeing (idem).

The effectiveness of coordinated and/or integrated approaches is notably evident in the case of burnout. There is a general consensus that burnout should primarily be regarded as an organisational issue rather than an individual one. Despite the inclination to "medicalise" the challenges faced by individuals affected by burnout, the support for individualised interventions is limited. Although there is some evidence of symptom overlap between workers experiencing burnout and patients with clinical depression, particularly those with pronounced exhaustion symptoms, the broader consensus is that burnout originates specifically from the work environment. In essence, an appropriate response should prioritise addressing working conditions rather than focusing solely on the affected individual (De Maeseneer et al., 2021).

Voice and workers' participation of healthcare workers

Some literature suggest that giving healthcare workers a *voice* – in terms of for example employment, working conditions, shifts and working hours – does have positive impacts for the wellbeing and mental health of healthcare workers. Also giving a voice in the content of work, such as having job autonomy in doing tasks, has positive impacts. Positive effects of a voice can be the result of *direct* individual workers' participation (Gray et al., 2019) or group participation (Von Thiele Schwarz et al. 2017), but can be also effected by regulations and practices of *indirect*, representative workers' participation in the field of occupational health and safety (Walters & Wadsworth, 2017). Dependent on labour law and other national industrial relations institutions, representation can be more or less organised by unions or by works councils or other non-union employee representative bodies in the workplace.

It is not clear how much healthcare workers themselves or their representatives - like trade unions, works councils or specified representatives in occupational health and safety – were involved in pandemic related policies and measures in hospitals and other healthcare organisations. The availability of publications on the subject of voice and workers participation during the COVID-19 period was (still) very limited. Nevertheless, we can look to the findings of a European Working Conditions Telephone Survey in 2021 that distinguished 11 groups of critical workers. In this study, the overall picture regarding 'voice' and 'direct workers' participation' for health and care workers is not particularly positive. Health and care workers received the lowest support from managers in 2021 compared with other COVID-19 pandemic essential workers (Eurofound, 2023: 18). Further, their level of task discretion and autonomy – the ability to choose or modify the order of tasks, the methods of performing tasks or the speed of work – were also notably lower than average (Eurofound, 2023:19). The same can be said about involvement in improving work organisation or work processes: the health and care workers also scored relatively low on this item in 2021 compared to other workers' groups

(Eurofound, 2023: 19). They also had the lowest level of flexibility in working hours. Female health and care workers were in the worst situation: just 17% could arrange easily to take an hour or two off to deal with private or family issues (Eurofound, 2023: 20). The picture of *representative* workers' participation for health and care workers however seems more positive. Almost 90% of the health and care workers had access to formal employee representation in the workplace in 2021, which was above average (Eurofound, 2023: 23).

Some of the organisational and voice factors mentioned above might be interrelated. For example, the positive effect of direct worker participation might disappear when there is also understaffing or when the organisation has adopted New Public Management principles (Llorens Serano et al., 2022: 22).

Collective bargaining

Generally speaking, collective bargaining in Europe plays a role mainly in the job quality dimension of 'terms of employment', covering pay, working hours and job security. Trade unions' participation and their influence though collective bargaining are very heterogeneous in the EU because of large variations in the institutional and organisation powers of trade unions. National variations in industrial relations regimes can also be seen in the diversity of labour relations in the healthcare sector across European countries, such as membership levels in trade unions and employers' associations and levels of collective bargaining and coordination. Furthermore, levels of privatisation in the healthcare sector are quite different across the European Member States, which also might have consequences for the healthcare workers' job quality.

Besides the traditional wage bargaining in Europe, social dialogue and collective bargaining in the healthcare sectors of some European countries played a role in scaling up hospital capacities and in initiating and developing emergency measures during the Covid-19 pandemic. Logically, this was a bigger role in countries with well-established social dialogue institutions and traditions of cooperation between the social partners, such as in Austria, Belgium, Denmark, Finland, Germany, The Netherlands and Sweden (Eurofound, 2022a). In Greece, Portugal and Spain – all countries most affected by austerity measures – social partners played a more limited role in managing the pandemic response (idem). The Hungarian and Lithuanian governments even restricted the positions of social partners (idem). Although collective bargaining in the hospital sectors continued to focus on wages and bonus payments, some information and consultation involvements were on broader issues such as the adaptation of work organisation to secure greater capacity, the reallocation of staff and the protection of staff health and safety (Eurofound, 2022a). Social partners found that the pandemic exacerbated existing staff shortages and problems with staff retention, which were related to burnout as results of high stress levels and heavy workloads of those who continued to work in the sector (idem).

There is little academic literature about trade union actions in the field of mental health promotion in general or in healthcare sectors. However, trade unions[2] around the world ask in websites for more awareness about mental health at work and these campaigns might be enhanced by the COVID-19 crisis and recent WHO reports. Llorens Serrano et al. (2022) analysed three case studies on trade union views on psychosocial risks in the healthcare and long-term care sectors (Sweden, Germany, Spain). Trade unions in all three countries saw training among OS&H representatives and raising awareness as the main tools for addressing psychosocial risks in health and care sectors. Generally speaking, prevention is seen as more important than mitigation. It depends however on the institutional context how trade unions (can) organise their efforts. In Sweden, trade unions collaborate with municipalities to make industry-specific guidelines and toolboxes to use in problem situations with the highest rates of reported sickness leave. In Germany, trade unions have concentrated on supporting the creation of

[2] For example COVID-19: Are You OK? | Nursing Times

works councils in healthcare and long-term care organisations, making risk assessments and initiating consultation on psychosocial risks. German unions see sectoral collective bargaining in the hospital sector and social dialogue in individual hospitals as platforms for influence. Spanish unions focus on the instrument of drafting 'counter reports' as a critical response on obligatory company risk assessment reports made by employers, and on grievance cases and awareness campaigns.

Legislation

The European Framework Directive 89/391/EEC (12 June 1989) on Occupational Safety and Health obliges employers to take the measures necessary for the safety and health protection of workers, including prevention of occupational risks and provision of information and training, as well as provision of the necessary organisation and means. Regarding for example pandemics like COVID-19, the following sentence is relevant: 'the employer shall be alert to the need to adjust these measures to take account of changing circumstances and aim to improve existing situations' (European Directive 89/391/EEC, Article 6). The Directive also regulates the employers' obligation regarding worker representation: 'the employer shall designate one or more workers to carry out activities related to the protection and prevention of occupational risk'. It defines a workers' representative with specific responsibility for the safety and health of workers as 'any person elected, chosen or designated in accordance with national laws and/or practices to represent workers where problems arise relating to the safety and health protection of workers at work' (cited from Eurofound, 2022b: 66).

European directives are legally binding and have to be transposed into national laws by Member States. Nevertheless, there are wide variations among national strategies in the field of Occupational Safety and Health in the European Union (European Agency for Safety and Health at Work, 2019). Furthermore, the structures of workers' representative bodies in OH&S and the threshold in terms of workplace size for which workers' representation bodies are required, vary greatly across the EU (ETUC-CES, 2013).

Some European countries created new legislation or adapted existing legislation during the COVID-19 pandemic, aimed at improving the working conditions of critical workers. The members of the Network of Eurofound correspondents found seven measures that related to the recognition of COVID-19 as an occupational disease, which is crucial to ensuring that employers provide the right working conditions to protect workers from contracting it (Eurofound, 2023: 25). These measures covered either the entire working population - in France, Latvia and Slovakia - or health and care workers specifically, such as in Germany, Spain, Sweden and Norway.

Broader cultural or societal factors

Literature is more and more often referring to the need to combat social stigma and stereotypes associated with mental illness, especially for healthcare workers (De Maeseneer et al., 2021; Leo et al., 2021; WHO 2020 etc.) and societal stigma against healthcare workers (Kisely et al., 2020). Stigma is a critical barrier in itself, determining health-seeking behaviour and ultimately access to care (De Maeseneer et al., 2021). In this context it is also important to adopt a blame-free environment to share incidents and ethical issues among workers in health care organisations (Leo et al., 2021).

Recently, the European Commission announced its intention to develop an EU mental health strategy at work, but also more broadly in society. We are leaving that policy out of this literature review because of its broad scope.

5. Summary and conclusions

The COVID-19 crisis had a significant impact on the mental health of healthcare workers, who already faced serious mental health risks prior to the pandemic. The crisis further increased these risks, with healthcare workers experiencing anxiety, stress, depression, post-traumatic stress disorder (PTSD), and insomnia. The mental health effects of the crisis were not limited to the individual, but also had broader implications for the functioning of hospitals and the provision of healthcare to the population.

The literature reviewed in this study highlights the importance of understanding and addressing the mental health risks faced by healthcare workers. Various factors contribute to these risks, including high workloads, substantial individual responsibilities, dealing with the suffering of patients and their relatives, and the threat of physical violence. The COVID-19 crisis added additional stress factors, such as fear for one's own health and the health of loved ones, high mortality rates among patients, and the deaths of colleagues. These factors could lead to burnout, depression and other serious mental health conditions.

Various strategies and initiatives were implemented to mitigate the negative impact on healthcare workers' mental health. These included individual-level interventions, such as training managers to support the mental health of their employees, and promoting self-care practices among healthcare workers. Organisational-level interventions involved providing appropriate protective equipment, training and support for healthcare workers, as well as creating a supportive work environment with good communication, teamwork and adequate rest periods. The involvement of trade unions, hospitals and other stakeholders was crucial in implementing these interventions and ensuring their effectiveness. Collective bargaining and workers' participation can also play a significant role in promoting the mental health of healthcare workers. Giving healthcare workers a voice in decision-making processes and addressing their concerns regarding working conditions, workloads and job autonomy can contribute to their well-being. Trade unions have an important role to play in advocating for the mental health of healthcare workers and negotiating for better working conditions and support systems. Legislation is another important tool for protecting the mental health of healthcare workers. European directives and national laws require employers to provide a safe and healthy work environment and to involve workers' representatives in occupational safety and health matters. However, the implementation of these measures varies across countries, and there is a need for further research on their effectiveness. Addressing mental health risks in the healthcare sector requires a comprehensive and multi-level approach. Strategies should focus on prevention, early detection and treatment of mental health issues, as well as creating a supportive work environment and addressing broader societal factors, such as stigma.

It is important to note that the literature reviewed in this study has its limitations. The quality of some studies was low, and there is a need for more rigorous research on the mental health of healthcare workers in the context of pandemics. Additionally, the findings presented in this study may not apply universally, as they are based on specific contexts and populations.

In conclusion, the mental health of healthcare workers is a critical issue that requires attention from healthcare organisations, policymakers, trade unions, and other stakeholders. The COVID-19 crisis highlighted the urgent need for interventions and support systems to protect the mental well-being of healthcare workers. It is important to prioritise the mental health of healthcare workers, both during times of crisis and in the longer term, to ensure the well-being of healthcare workers and the provision of high-quality healthcare services.

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