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Psychosocial well-being of healthcare workers during COVID-19

Bien-être psychosocial du personnel de santé pendant la pandémie COVID-19

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SUMMARY
During the present COVID-19 pandemic, healthcare workers are confronted with multiple stressors. At the beginning of the pandemic, these stressors were mainly related to health and safety issues. In the course of the pandemic, societal stressors became more salient. These include lacking credibility of important stakeholders (leadership, organization and policy) as well as lacking appreciation from society and policy. Both stressors referring to safety related issues as well as stressors referring to trust or morally related issues, have negative impact on psychosocial well-being in terms of distress, anxiety, burnout, depression and moral injury. To mitigate the effects of the COVID-19 crisis on healthcare workers and to enhance the resilience and psychosocial well-being of healthcare workers, psychosocial support is important to be delivered on different levels.

RÉSUMÉ
Pendant la pandémie actuelle COVID-19, les personnels de santé ont été confrontés à de multiples facteurs de stress. Au début de la pandémie, ces facteurs de stress étaient principalement liés à des questions de santé et de sécurité. Au cours de la pandémie, les facteurs de stress sociaux sont devenus plus saillants. Il s’agit notamment du manque de crédibilité des parties prenantes importantes (direction, organisation et politiques) ainsi que du manque d’appréciation de la part de la société et des politiques. Que ce soient les facteurs de stress liés à la sécurité, ceux liés à la confiance ou à la morale, tous ont un impact négatif sur le bien-être psychosocial en termes de détresse, d’anxiété, d’épuisement, de dépression et de préjudice moral. Afin d’atténuer les effets de la crise COVID-19 sur les personnels de santé et d’améliorer la résilience et le bien-être psychosocial de ces derniers, il est important d’apporter un soutien psychosocial à différents niveaux.

INTRODUCTION
Since 2019, healthcare workers (HCWs) worldwide have been confronted with the diverse and manifold effects of the COVID-19 pandemic. Stressors and challenges that helpers have been confronted with have been a major point for discussion and exchange within the scope of the NO-FEAR project, being addressed in several webinars and broadly reflected in the needs regarding human factors derived from the NO-FEAR webinars [1].

HEALTH CARE WORKERS ARE CONFRONTED WITH MANIFOLD STRESSORS
The stressors for healthcare workers have changed over the course of the pandemic [1]. As we stated through joint research efforts...
CONSEQUENCES FOR HCW'S MENTAL HEALTH

As a wide variety of published research shows, the psychosocial consequences for healthcare workers are manifold. However, measures on stress and symptom levels should be evaluated in consideration of the given context and time of measurement. In a review of correlational studies conducted from December 2019 to April 2020, the prevalence of anxiety in HCWs was between 24.1–67.55%, of depression between 12.1–55.89%, and stress between 29.8–62.99% [3]. A review of studies conducted between December 2019 and May 2020 shows a prevalence of anxiety between 30 and 70% and depression between 20 and 40% in HCWs [4]. A review of studies between January and August 2020 of European and American HCWs reported moderate and high levels of stress (37–78%), anxiety (20–72%), and depression (20–65%). Sleep disturbance ranged between 8–72% [5]. One review reported on the prevalence of trauma-related stress in HCWs during COVID-19 between January and May 2020, which was between 7.4% and 35% [6]. In an Italian study of various HCWs conducted from April to May 2020, including physicians, nurses, nurse assistants and physiotherapists, 31.3% reported clinically relevant levels of anxiety, 26.8% of depression, 34.3% of stress, and 36.7% of posttraumatic stress (PTS). In terms of burnout, 35.7% stated moderate and 31.9% severe levels of emotional exhaustion, 14.0% had moderate and 12.1% reported severe levels of depersonalization. 40.1% showed moderate and 34.3% severe levels of reduced personal accomplishment [7]. Our measurements conducted in German-speaking samples of health care workers show increasing stress levels and depression risks over time as well as an increase in anger related emotions [1]. In an Italian sample by other colleagues from the NO-FEAR project a prevalence of 20% with depressive and 12% with mild to moderate anxiety symptoms could be found among HCWs in a COVID-19 intensive care unit (ICU) in May 2020. Sixty-four percent reported high levels of burnout, and around half of the sample had experienced moderate or severe PTS symptoms. Female gender, negative testing for COVID-19 buffer, changing family habits, being single or divorced as well as no previous working experience in ICUs were identified as risk factors [8].

CONSIDERATION OF RISK FACTORS

Although ill effects of the pandemic have been shown in HCWs in general, some subgroups were even at a higher risk of developing stress symptoms. To assess vulnerability, it is important to consider individual risk factors. Anxiety is reported more frequently and at higher levels in women [3,5] and in nursing staff [3,5,6]. Women, single people, younger people and people with less work experience report higher rates of depression. Sleep disturbances are also observed more frequently in HCWs working with COVID-19 patients [5]. Risk groups for experiencing anxiety and depression are families with children [4], individuals with neuroticism [4], and people with preexisting mental health problems or physical diseases [4,6]. In terms of stress, women and caregivers are found to be more affected. In addition, HCWs with less work experience, singles and individuals with pre-existing mental and chronic illness report higher levels of stress [5]. Predictors of burnout include age and previous mental illness [7]. Higher age predicts reduced accomplishment. Female gender, as well as belonging to the occupational group of nurses, is associated with emotional exhaustion and depersonalization [7]. In terms of COVID-19 exposure, higher vulnerability for and higher levels of anxiety and depression exist among first responders, intensive care workers, HCWs in COVID-19 hospitals, quarantined staff [4], frontline HCWs [3,6] and HCWs who have been infected themselves or had infection cases in their family [4]. Contact with COVID-19 patients is associated with emotional exhaustion and depersonalization [7]. In addition to personal risk factors, also organizational risk factors need to be taken into account. Organizational risk factors for anxiety and depression among HCWs include resource availability in different domains. Resource availability in the form of PPE shortages has been associated with fear of infection [4]. In the context of human resources, shortages included a lack of psychological support and the extension of working hours [4]. Organisational stressors included uneven staffing levels in wards, with shortages of staff on COVID-19 wards while employees from other departments took leave [9]. Excessive overtime increased emotional exhaustion and insomnia [4], as well as depersonalization [7]. These findings highlight the importance of leadership in the pandemic [10]. Epidemiological development is also shown to be another influencing factor for the development of anxiety, depression, and distress. HCWs living in a high incidence area report higher levels of stress [5]. Previous experience of pandemics, incidence of the region or stage of the pandemic are also associated with the experience of anxiety and depression [4]. Over the course of the pandemic additional psychosocial risk and protective factors are proposed by Juén and colleagues [9]. One factor, which lessens the fear of infection in most HCWs is vaccination, but, depending upon the working context, psychosocial effects may differ. HCWs working in COVID-19 wards, over the course of the pandemic, experienced relief in terms of fear of infection [1,11]. In contrast, among HCWs in non COVID-19 wards increasing structural and system-related stressors could

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partly explain the increase in distress and other psychological complaints in HCWs over the course of the pandemic.

**MORAL INJURY AMONG HEALTHCARE WORKERS**

During the course of COVID-19 many stressors are grouped around moral distress and moral injury, which means they include a violation of personal values [12], core values [13], or professional values [14]. Core values refer to constructs of fairness, responsibility, respect, citizenship and caring [15]. Professional values in the healthcare sector include justice, integrity, ethical practice, respect and compassion, accurate and competent practice, as well as autonomy in decision making [16]. In nursing literature, environments likely to cause morally distressing events are characterized by institutional, social, or procedural restrictions [13], low degree of autonomy, as well as, of influence in decision making processes. Morally distressing situations are characterized by both low degree of influence on outcomes of the situation and high demand to act [14]. In this context moral violations may have multiform origins: one’s own actions, witnessing an immoral act, or feeling betrayed by central and trusted authorities [17,18]. Several moral stressors for HCWs during COVID-19 were identified in a recent review [19]. Ensuring a dignified death or conflicts between patient isolation and the fundamental right of freedom, changing teams, poor qualification of colleagues and violation of safety standards by colleagues were identified as interpersonal moral stressors of HCWs during COVID-19 [19]. In the organizational domain, a lack of knowledge and acting under conditions of crisis were morally stressful. Conflicts arose between the role as HCW and the role as family member due to the compulsion to choose between professional ethics and duties and the fundamental value of protecting the family [19]. Especially in the context of the present pandemic, these morally distressing experiences occurred more frequently or accumulated and thus lead to the psychosocial experience of moral distress or moral injury in many HCWs [19]. Moral distress refers to minor everyday unpleasant psychological experiences in situations where individuals are prevented from acting in ways they would have considered right based on personal values [12]. Moral injury (MI) on the other hand is the negative impact of ongoing or severely morally distressing experiences. According to Shay, MI is the experience of feeling betrayed by authority figures in high stakes situations [18]. Authority figures can represent organizations, or other legitimate authorities [18]. Referring to Litz and colleagues [17], MI is the “the lasting psychological, biological, spiritual, behavioral, and social impact of perpetrating, failing to prevent, or bearing witness to acts that transgress deeply held moral beliefs and expectations” [17]. In the course of MI, individuals experience a fundamental violation of fundamental self-related expectations and expectations concerning societal value systems. Events cannot be integrated into schemes of personal values and central values of the community. The incongruence between own immoral actions or witnessing immoral actions and one’s own moral ideals may lead to the loss of trust in one’s own person or loss of interpersonal trust. Furthermore, it can result in reduced trust in close or higher authorities, in a government, or in society as a whole [18,20]. If unresolved, this incongruence has implications for psychosocial functioning and can affect individual and social domains. Individual consequences include negative impact on self-concept and emotions of shame and guilt [17]. During COVID-19, mental HCWs reported feelings of guilt towards patients as vicarious moral injury [21]. Kreh and colleagues [2] found MI in HCWs in the form of anxiety, loss of confidence and exhaustion [2]. In clinicians, feelings of helplessness and cynicism have been identified [22]. In therapists, feelings of MI include sadness, helplessness, isolation and distress [23]. MI was found to correlate with depression [24], burnout [25,26], and low well-being [25]. Interpersonally and socially, MI negatively impacts family life and social environments [27,28]. In HCWs alienation from colleagues and work-related guilt have been found [29,30]. Inter-individual changes in HCWs during COVID-19 have been identified as frustration and blame [2], disengagement from work, desire to change the career direction [22], anger, loss of trust in leadership, and decreased commitment to the organization [31]. Few empirical studies report prevalences of MI in HCWs during COVID-19. A study from China conducted during March–April 2020 found a prevalence of 41.3% in 3006 doctors and nurses [25]. In an Israeli study, 41% of HCWs reported clinically relevant symptoms of MI [24]. In a study at a university hospital in North Carolina from November 2019 to March 2020 among 181 HCWs, 23.9% reported at least moderate symptoms of MI. Psychological impact was assessed using the dimensions of betrayal, guilt, shame, moral concerns, loss of trust, loss of meaning, difficulty forgiving, and self-judgment. In addition, religious difficulties and loss of religious faith were reported [26]. Individual risk factors for MI include younger age, female gender [32], and lower educational background [25,26]. Additionally, experiencing MI was positively associated with less work experience [26]. In Zerach and Levi-Belz, older age was associated with lower exposure to moral stressors [24]. Additional individual risk factors for MI represent no religious affiliation and low identification with religion [26], low self-compassion and high self-criticism [24]. Comparing different employment groups the professional group of nurses faced higher exposure of moral stressors than social staff [24]. Nurses experienced MI more frequently than doctors [25,26]. In Miljeteig and colleagues staff directly involved in the treatment of COVID-19 patients, redeployed staff, HCWs executing unfamiliar tasks due to COVID-19, and staff working in psychiatry or addiction medicine reported more frequently priority setting dilemmas than HCWs working in the medical department [32]. In the same study Moral distress was higher in redeployed workers, staff working in psychiatry or addiction medicine and in female HCWs. Among the occupational group, not directly involved in COVID-19 care, managers reported higher Moral distress than non-managers [32]. Referring to COVID-19 exposure, people working with COVID-19 patients are 28% more likely to develop symptoms of MI than those without contact with COVID-19 patients [25]. Organizational risk factors were present in a lack of material resources like PPE or deficiencies of time and staff. Taking on new roles and responsibilities, lack of communication and instrumental leadership were other risk factors [19]. In 77 critical care staff (90% physicians) from the United States across three points of measurement (March to July 2020) levels of stress and lack of workplace support were positively associated with MI [33]. Additionally, HCWs exposed to verbal or physical violence from relatives are 44% more likely to experience MI [25].
CONCLUSION

In the context of COVID-19, increasing distress among HCWs can be observed despite adequate PPE and vaccination. Adequate psychosocial support must be implemented on several levels (decision makers/authorities, organization and leadership). Authorities often limit adequate compensation despite unchanged demands for HCWs, and stigmatization of HCWs may increase [9]. For example, unequal distribution of financial compensation may concern norms and values regarding equity in terms of justice. Trust related values may be violated if HCWs cannot rely on financial provision and credibility of statements by the organization or political stakeholders. A loss of trust in the system and in society as a whole can occur if the workload of HCWs not only in COVID-19 ICUs but also in the normal wards are not perceived and appreciated. During crisis, well-being can be maintained by ensuring a sense of safety, calm, connectedness, self-, and collective efficacy, as well as hope in the form of positive future orientation [34]. Evidence shows that perceived organizational justice increases well-being of staff in hospitals. Decentralized decision making, including nursing staff in executive positions and investment in continuing education is associated with less negative mental health impacts on staff [35].

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Disclosure of interest

The authors declare that they have no competing interest.

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