

Review

Mental health of healthcare workers during the COVID-19 pandemic

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Summary

Health workers, doctors and nurses and other health staff, due to their occupation and daily exposure to stressful situations, are the most exposed to professional burnout and the dangers of numerous mental disorders. The aim of this review was to point out, based on data from recent literature, the importance and level of mental health of doctors and nurses during the COVID-19 pandemic. Mental health is influenced by various factors, from social changes and circumstances to personal experiences in society. Extended working hours, night work, shift work, responsibility when making decisions, contact with the sick, contact and care for patients in the terminal phase of the disease, care for their families, and also the professional burnout of health workers have increased the morbidity of numerous psychological disorders and psychosomatic diseases in health workers, especially during viral epidemics and pandemics.

The World Health Organization advocates the thesis that the feeling of pressure in the current situation associated with the COVID-19 pandemic is normal, and that taking care of mental health is just as important as taking care of physical health.

Keywords: healthcare workers, mental health level, COVID-19 pandemic

Introduction

The World Health Organization defined mental health as “a state of well-being in which each individual realizes his own potential, can cope with normal life stresses, can work productively and can contribute to his community” [1]. Positive mental health implies the ability to adapt to stressful situations, the ability to create positive feelings about oneself, i.e. maintaining a sense of personal worth and self-esteem, as well as engaging in productive activities that help people develop, create and maintain friendships and good interpersonal relationships. Mental health is influenced by various factors, from social changes and circumstances to personal experiences in society. Working people spend most of the day at their workplaces, so it is understandable that the workplace with all its characteristics can affect the mental health of every employed person,

especially healthcare workers. A high-quality working environment helps to a large extent to preserve the mental health and working ability of employees, while, on the other hand, poor environment and difficult working conditions of employees contribute to the development of mental disorders [1].

Health workers, doctors and nurses and other health staff, due to their occupation and daily exposure to stressful situations, are most exposed to professional burnout and the dangers of numerous mental disorders. At the end of 2019, a new virus from the coronavirus family appeared in Wuhan, China, which was first called the novel SARS-CoV virus, and then the SARS-CoV-2 virus [2]. It is a highly contagious disease that first caused an epidemic of acute respiratory syndrome (COVID-19), and in the period between January and April 2020, the epidemic turned into a global pandemic, and very quickly spread to other countries all over the world. The COVID-19 pandemic has been a great challenge for countries around the world since its inception, especially for healthcare workers facing with the challenge of providing care to a large number of patients [3].

For healthcare workers around the world, the word "exhaustion" has taken on a new meaning. The pandemic has brought many problems and new challenges, as well as the presence of fear and uncertainty, but also the appearance of problems with the functioning of health workers who were involved in the treatment of patients suffering from the COVID-19 infection, as well as all other patients. Taking care of their own mental health and well-being is equally important, as is physical protection at work. Health workers during the pandemic had an important task, i.e. to implement numerous interventions in their work processes, to provide quality health care to the sick and infirm.

A meta-analysis from 2018 spoke about the high rates of burnout syndrome, but also about the impaired mental health of health-

care workers before the COVID-19 pandemic [4]. The prevalence of burnout syndrome among physicians was 67.0% for total burnout, 72.0% for emotional exhaustion, 68.1% for depersonalization, and 63.2% for poor personal achievement [5]. Health workers, nurses and doctors, belong to the professions that are most exposed to the burnout syndrome, which was further increased by the crisis caused by the COVID-19 pandemic [5]. The stressful situations in which healthcare workers find themselves are often linked to mental and physical health. Health workers carry out numerous diagnostic procedures and provide care to patients. Extended working hours, night work, shift work, responsibility for contributing to decisions, contact with the sick, contact and care for patients in the terminal phase of the disease, care for their families, but also the professional burnout of healthcare workers increase the morbidity of numerous mental disorders and psychosomatic diseases in healthcare workers, especially during viral epidemics and pandemics [6, 7, 8]. Research has shown that depression in the workplace is most often manifested in the form of fatigue, decreased concentration, and physical symptoms in the form of various pains. Such persons become passive, withdrawn and unproductive at the workplace, and depression can also affect their ability to judge or make decisions. People with this disorder quit their jobs or change jobs more often [8].

The prevalence of mental disorders at workplaces (stress, anxiety, depression) has been increasing since 2015, and expectations that impaired mental health will surpass all other work-related illnesses are justified. According to the research conducted by the European Agency for Safety and Health at Work on the prevalence of occupational stress, it is evident that stress at the workplace is present in every third employed person in Europe, that is, there is a visible increase in occupational stress in the period from 1995 to 2005 with a prevalence of 28% to 31%. The problem

of professional stress annually causes the loss of a million working days, which makes costs of 20 billion euros and 5 million registered accidents and various injuries at work [9].

The aim of this review was to point out, based on data from recent literature, the importance and the level of mental health of doctors and nurses during the COVID-19 pandemic.

Burnout syndrome among healthcare workers

Professional burnout syndrome occurs in people who are continuously exposed to stress at the workplace, when an individual encounters events or situations that he/she cannot cope with, or if they exceed his/her abilities. This syndrome is manifested by a feeling of exhaustion, chronic fatigue, loss of energy, idealism and motivation, which can be accompanied by various symptoms of a psychological and physical nature such as insomnia, diseases of the heart and blood vessels, then anxiety, depression and many others. The most vulnerable demographic category is young people, who are twice as likely to suffer from depression as average-aged workers. Burnout syndrome at work, which is related to professional stress according to the International Classification of Diseases ICD-11 (International Classification of Diseases - ICD-11) issued by the WHO, has been declared a legitimate medical diagnosis [10].

A large number of organizational factors such as the type of work, conflicting professional services, working conditions, scope of work tasks, length of working hours, contribute to a large extent to the stressogenicity of a certain profession. In recent years, interest in the phenomenon of professional burnout has been very widespread in various scientific fields, but it is also the subject of a large number of extensive scientific researches related to stress in general. However, still there is neither

generally accepted definition of this term nor a generally accepted theoretical model that would offer a universal explanation of how stress leaves a negative impact on people's psychophysical health. Scientists view stress as a complex bio-psycho-social phenomenon that occurs as a systemic response of the organism (psycho-neuro-endocrine-immunological reaction) to the action of various stressors that disturb the psycho-physiological and psycho-social balance of the organism [11].

Timely recognition of symptoms can give an advantage in better stress control. So far, the results have indicated the fact that healthcare workers are exposed to a much higher level of stress at the workplace compared to the general population under normal circumstances, and are also exposed to a higher risk of psychosomatic diseases. Healthcare workers showed the highest risk of adverse psychological reactions during the COVID-19 pandemic, while contact with the coronavirus infection is associated with a significant increase in stress among healthcare workers [12]. However, feeling stigmatized is not associated with infection risks and is most prevalent among nurses and nursing assistants [13].

The 2020 meta-analysis by Batra et al, related to the COVID-19 pandemic, which included 65 studies and a total sample of 79,437 respondents, showed a prevalence of anxiety of 34.4%, depression 31.8%, stress 40.3%, post-traumatic stress syndrome 11, 4%, insomnia 27.8%, psychological stress 46.1% and burnout 37.4%. The analysis showed a higher prevalence of anxiety and depression among women, nurses and people on the front line of the fight against the pandemic, in contrast to lower prevalence among men, doctors and health workers on the second line [13]. The level of stress when dealing with a biological threat such as COVID-19 in healthcare workers can potentially cause post-traumatic stress syndrome, as well as increase the rate of psychosomatic diseases [14, 15].

In addition to psychological symptoms, frontline health workers are at higher risk of

viral infections, sudden death and work-related disorders, including cardiovascular disease [16]. Relevant research from the available literature supports the fact that the pandemic threatens the psychological well-being of the youngest and highly qualified professionals [12, 14]. A relevant study from 2021 on the burnout syndrome and the suicide rate of healthcare workers during the COVID-19 pandemic showed the presence of professional burnout in 42% of respondents, of which 79% stated that they were in burnout even before the COVID-19 pandemic [17]. Work-related stress is a characteristic reaction of employees because there are some work tasks that must be performed, and sometimes these demands exceed the knowledge and abilities of healthcare workers and they are often unable to cope with them [18]. Also, it is very important to recommend providing training to managers of institutions to acquire the necessary knowledge about the threat of mental health in the workplace so that they are able to recognize warning signs, take appropriate measures and possibly refer the employee to the procedure of providing professional assistance, if it is estimated that he/she needs help [19].

Mental health of healthcare workers during the COVID-19 pandemic

The World Health Organization advocates the thesis that the feeling of pressure in the current situation associated with the COVID-19 pandemic is normal, and that taking care of mental health is just as important as taking care of physical health [20]. The COVID-19 pandemic has put healthcare workers in a situation where they have to make impossible decisions and work under extreme pressure. These decisions may include ways to allocate inadequate patient resources equally, how to balance one's own needs with the patient's physical and mental health needs, how to bal-

ance duties and wishes to patients, family, and friends, how to provide care to all seriously ill patients when resources are limited and inadequate. All this can damage the mental health of healthcare workers [21]. These problems can affect the working ability of healthcare workers and the quality of services provided. It is known that a negative work environment can lead to mental health problems. Although the World Health Organization emphasized the importance of mental health during the pandemic, most countries still do not focus on this problem [22, 23, 24].

Direct exposure to infection during the treatment of infected patients, working with suspected patients and also the potential possibility of infection, number of newly infected and hospitalized, high workload, wear of personal protective equipment, fear of inadequate use of protective equipment, care for loved ones, the lack of certain medications and feeling insufficient support, unsafe discharges of patients from the hospital, loss of health professionals and citizens due to death, lack of staff, emotional and ethical involvement in making difficult decisions, uncertainty about the duration of the pandemic, these are all extremely stressful situations to which health workers are exposed, which ultimately leads to damage to physical health, affecting the thinking process, the emotional well-being and behavior of the individual. A special emotional and psychological burden is also imposed during the healthcare of patients in isolation and quarantine. Very often orders to work in quarantine occur during working hours, which puts workers in a situation where it is impossible to go home to their loved ones. In particular, nurses involved in the care and treatment of coronavirus patients are very sensitive to unfavorable psychological conditions that cause reported difficulties in functioning at the business and private level [25]. The research, which involved 12,596 nurses working in different departments, indicated that 34.8% of them had sleep problems or poor sleep quality, 33.9% of

them believed that a similar disaster would happen again in the future, 28.1% became especially nervous or scared during unexpected events, 27.6% showed symptoms of irritation or got angry easily, 24.6% had negative thoughts or memories related to their experiences with the pandemic, while 13.3% had symptoms of trauma [26]. However, even before the onset of the pandemic, nurses were a vulnerable group for burnout in the workplace due to their emotional work with patients in various health and emotional states mostly unpleasant, which required managing not only their own emotions, but also the emotions of patients, i.e. a kind of regulation their suffering and pain [26]. Health care workers of a younger age, especially women and mothers of minor children, experience a greater dose of stress, because the female gender and interaction with COVID-19 patients is associated with anxiety and depression because it causes fear of infecting themselves or family members. One of the possible reasons for this can be also that older healthcare workers show fewer symptoms and difficulties with mental health because they have experienced a lot in their work practice and for this reason they have developed better coping skills. Stressors that impair their health are frustration over the impact of prescribed measures for the performance of work, lack of practical support such as a lack of adequate protective equipment, inadequate and insufficient staff training, lack of fairness in the organization, lack of support and understanding from superiors, conflicts related to professional roles, and interpersonal conflicts. This type of stress increases psychological pressure in the workplace. Also, stress can be caused by work organized in shifts, night work, standby at work and extraordinary calls to work in the employee's free time. Such situations shorten rest, sleep and recovery of workers, resulting in bad mood, irritability, drop in concentration, decrease in communication skills, and decrease in the ability to deal with emotional difficulties in the workplace [26].

The results of the research published in JAMA (Journal of the American Medical Association) and conducted during the peak of the number of coronavirus patients in Wuhan on 1257 health workers, i.e. 39.2% of doctors and 60.8% of nurses from 34 hospitals, show that 42% of the total number of respondents constantly took care of COVID-19 patients, where high rates of depression (50.4%), anxiety (44.6%), insomnia (34%) and stress (71.5%) were found among them [27].

The way the organism responds to stress depends on the psychological constitution of the person himself/herself, on his/her emotional state, and especially on previous life experiences. However, if exposure to stress lasts continuously, it leads to harmful consequences for the health of the person. The modern processes of globalization, the development of information and communication technologies and the demographic change of the workforce are radically changing the context of work, the working environment and the structure of work organizations, which results in the fact that work in many areas has already become, or will become even more intense and complex in the future and more responsible, requiring increased "mental-emotional stress", with more complex work patterns and more complex interpersonal relationships [28]. The encouraging fact is that the World Health Organization and many institutions have proposed guidelines for providing psychological support to healthcare workers during the pandemic, which is why it is important to use all evidence-based strategies to maximize already excessive resources [29]. According to the World Health Organization, healthcare workers need to be provided with adequate education, workplace support, and promotion of positive coping strategies to reduce their psychological distress [30].

The COVID-19 pandemic poses a significant challenge to the mental health of healthcare workers due to frequent exposure to stressful situations and increased risk of various mental

disorders such as anxiety, depression, PTSD, burnout syndrome and others. Therefore, it is important to implement specific strategies to prevent these disorders. Support from colleagues is of great importance. Healthcare workers often work in teams, so it is important that they support and help each other. Regular work meetings and discussions about stressful situations can help reduce the risk of burnout. Long working hours can be harmful to mental health, so it is important to establish a balance between work and personal life to avoid burnout and stress. Providing education on stress management methods can also help healthcare workers cope with stress and reduce the risk of mental disorders. Providing a safe and healthy working environment reduces stress and the risk of mental disorders. Healthcare institution management can help healthcare workers by providing adequate support, including financial support, appropriate working conditions, flexible working hours, regular breaks, as well as mental health programs and access to psychologists or counselors. There are many strategies that can be applied to reduce the risk of

mental disorders and maintain good mental health in healthcare workers. It is important that these strategies are implemented at the individual and organizational level to ensure a healthy and safe working environment for all healthcare workers [30].

Conclusion

The COVID-19 pandemic has led to many changes on the personal, family and social level of each individual, but also to many changes in the functioning of the health system. Previous research and extensive clinical practice indicate the existence of frequent and intense problems related to mental health, which are the consequence of the COVID-19 pandemic. It is of great importance to timely develop strategies for the prevention, treatment and rehabilitation of health workers with burnout syndrome, which would maintain the mental health of health workers, but also quality health care and assistance provided to patients within the health system.

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Mentalno zdravlje zdravstvenih radnika tokom pandemije COVID-19

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Zdravstveni radnici, ljekari i medicinske sestre i drugo zdravstveno osoblje, zbog vrste svog zanimanja i svakodnevnog izlaganja stresnim situacijama, najviše su izloženi profesionalnom sagorijevanju i opasnostima od brojnih mentalnih poremećaja. Cilj ovog preglednog rada bio je da se, na osnovu podataka iz novije literature, ukaže na značajnost i nivo mentalnog zdravlja ljekara i medicinskih sestara tokom pandemije COVID-19. Na mentalno zdravlje utiču različiti faktori, od društvenih promjena i okolnosti, do ličnih iskustava u društvu. Produženo radno vrijeme, noćni rad, rad u smjenama, odgovornost pri donošenju odluka, kontakt sa oboljelima, kontakt i briga o pacijentima u terminalnoj fazi bolesti, briga o njihovim porodicama, ali i profesionalno sagorijevanje zdravstvenih radnika povećavaju morbiditet brojnih psihičkih smetnji i psihosomatskih bolesti kod zdravstvenih radnika, posebno tokom virusnih epidemija i pandemija.

Svjetska zdravstvena organizacija zastupa tezu da je osjećaj pritiska u trenutnoj situaciji povezan s pandemijom COVID-19 normalan, te da je briga za mentalno zdravlje jednako bitna kao i briga za fizičko zdravlje.

Ključne riječi: zdravstveni radnici, nivo mentalnog zdravlja, pandemija COVID-19