Deliverable 5 .3. 3 Toolbox for Equal Health Provision

Development of solutions on how to address the psychological effects on the medical staff of the beneficiary from the Covid-19 pandemic & burnout syndrome - G UIDELINES

1. DEFINITIONS

Term	Definition
Mental health	A state of individual well-being in which the individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and can contribute to the effective functioning of the community
Crisis intervention	Qualified help/support aimed at supporting the behavior of individuals to psychologically resolve sudden crises and restore the level of mental functioning
Psychological counseling	Skilled activity aimed at overcoming individual, group and organizational problems by conducting systemic assessment and impacts
Extreme stress	A transient state that develops in response to a critical incident at work, includes emotional, physiological, and cognitive manifestations and resolves within 48 hours
Professional stress	An individual's response to increased and excessive demands of the work environment that disrupt and/or deplete his mental resources for coping and effective functioning
Risky behavior	Manifestation of maladaptive behavioral patterns to cope with the demands of a non-hospital or in-hospital environment, violating the norms of the organization and endangering the functioning of the health worker and the in-hospital/out-of-hospital facility
Critical incident	An unexpected and sudden event outside the range of normal human experiences that disrupts the sense of control, includes the perception of a threat to life and elements of physical and/or emotional loss
Mental readiness	Ability of the medical worker to realize the assigned tasks on the basis of mobilizing his own resources
Mental resilience	A dynamic process leading to positive adaptation in the context of experiencing significant hardship

2 . PANDEMIC FLOCKS OF COVID-19 AND ITS IMPACT ON HEALTH

The Covid-19 pandemic has caused serious difficulties for people both in their workplaces and at home, during their free time, in their social connections and relationships. Limiting a person's ability to exercise control over events in his life turned out to be a serious test, overcoming which requires skills to deal with the dynamics of changes in work and personal life. The crises that unfolded as a result of the "covid waves" put serious pressure on every single individual.

In January 2020, the World Health Organization (WHO) declared the spread of the novel coronavirus a public health emergency of international concern. Unfortunately, WHO's predictions about the high risk that the disease caused by COVID-19 will spread to other countries of the world, reaching the proportions of a pandemic, have been fully justified, and the subsequent period of crisis has created tension among the population around the world.

Almost a year after the end of the pandemic, it can already be argued that Covid-19 leaves a serious mark not only on physical, but also on mental health. In all countries there is an increase in mental disorders related to anxiety and depression, as well as obsessive-compulsive disorders and those on the spectrum of mixed disorders. All this happens because the thought of perniciousness takes hold of man at every level and the fear that everything in life can change in an instant grabs him in its strong embrace. This fear is strong, devastating and destructive.

In this situation, the role of health workers was subject to even greater tension - both because of the immediate danger of infection (much higher than among other population groups), but also because of the increased expectations of society. At the same time, there are even examples where some health workers feel that their family or community shuns them due to stigma or fear. It is for these reasons that caring for the mental health of healthcare workers is a task of extreme importance (not only in the context of a pandemic), regardless of the fact that working under pressure is a common condition for the profession.

With any epidemic, it is common for people to feel stressed and worried. The following frequent reactions and their consequences are observed in society:

- Fear of illness and death, which can turn into a more severe form of mental illness, even a phobia;
- Avoiding visits to healthcare facilities due to fear of infection during treatment, leading to complications of chronic diseases and additional pressure on the healthcare system;
- Fear of loss of livelihood, inability to work during isolation and being fired. It results in high levels of negative stress (distress, harmful or harmful stress leading to psychological, physical and social consequences) , loss of motivation, change and deterioration in relations between staff, etc. Workers lose a sense of security and perspective. In the spring of 2021, mental well-being reached its lowest level since the start of the pandemic, with the deterioration affecting all age groups, but especially young people and those who have lost their jobs. Almost two-thirds of people (64%) in the youngest age group (18–34 years) are at risk of depression;
- Fear of social exclusion - COVID-19 is unlocking various aspects of discrimination such as: against persons who are from or perceived to be from the affected areas; gender and age discrimination - it is believed that children are the main spreaders of the disease, as well as mothers who are inevitably in contact with them; and others.;
- Fear of separation from loved ones and caregivers due to quarantine regime;
- Refusal to care for unaccompanied or separated minors, disabled or elderly people due to fear of infection because parents or carers are quarantined;
- Feelings of helplessness, boredom, loneliness and depression due to isolation

Emergency situations are always stressful, but the stressors accompanying the COVID-19 outbreak are specific and difficult to control. They include:

- Risk of infection and infecting others, especially if the mode of transmission of Covid-19 is not 100% clear
- Common symptoms of other health problems (e.g. high fever) may be mistaken for COVID-19 and lead to fear of infection;
- Caregivers may feel increasingly concerned about their children being home alone (due to school closures) without adequate care and support. School closures may have a disparate effect on women, who provide the majority of caregiving in the family, particularly because of limited employment opportunities and resulting financial hardship.
- Risk of deterioration in the physical and mental health of vulnerable people, for example older people and people with disabilities, when carers are quarantined and other options for care and support are not available.

Frontline workers (including doctors, nurses, ambulance drivers, paramedics, and others) may experience additional stressors during the COVID-19 pandemic including:

- Stigmatization towards those working with patients with COVID-19 and their relatives
- Stigmatization of those working with patients with COVID-19 in healthcare settings
- Reduction of social support networks if health workers are stigmatized
- Manifestation of acts of discrimination, including violence and harassment against health workers
- Families of healthcare workers may also be subject to stigma and discrimination from society at large
- Strict biosecurity measures:
  - Physical load on protective equipment
  - Physical isolation making it difficult to provide comfort to someone who is ill or in distress
  - Constant awareness and alertness
  - Strict procedures to follow preventing spontaneity and autonomy

- Higher professional demands, including long working hours, increased patient volume and constant awareness of best practices and developments in information about COVID-19
- Reduced capacity to use social support due to intensive work schedules and community stigma towards frontline workers
- Insufficient personal capacity or capacity to implement basic self-care, especially among people living with disabilities
- Insufficient information on long-term exposure of persons infected with Covid-19
- Fear that frontline workers will pass on Covid-19 to their friends and family as a result of their work

The ongoing fear, anxiety, uncertainty and stressors among the population during the Covid-19 outbreak can lead to long-term consequences in the community, families and vulnerable individuals:

- Deterioration of social protection networks, local population dynamics and economic development
- Stigma towards surviving patients leading to rejection from the community

- Possible higher emotional state, anger and aggression towards public servants and frontline workers
- Possible anger and aggression towards children, spouses, partners and family members (increased family and intimate partner violence)
- Possible mistrust of information from the government and other authorities
- People with developing or existing mental health and substance use disorders experience relapse and other negative outcomes because they avoid health care settings or are unable to access their care providers

Some of these fears and reactions stem from realistic dangers, but many reactions and behaviors also stem from a lack of knowledge, rumors, and misinformation.

3. INTERNATIONAL RESEARCH ON THE IMPACT OF THE COVID-19 PANDEMIC ON MENTAL HEALTH

study [1] conducted between August and December 2022 among 241,712 adults with Covid-19 found that mental health and health-related quality of life were worse among patients with ongoing symptoms after COVID compared to those who never had Covid-19 or fully recovered.

The most common long-term symptoms are mild fatigue, difficulty thinking or concentrating, and joint pain. Other reported symptoms that persist include loss or change in smell or taste, shortness of breath, extreme fatigue, chest tightness or pain, and poor memory.

Figure 1. Duration of symptoms after passing Covid-19 – overall and by dominant variant of the strain during infection
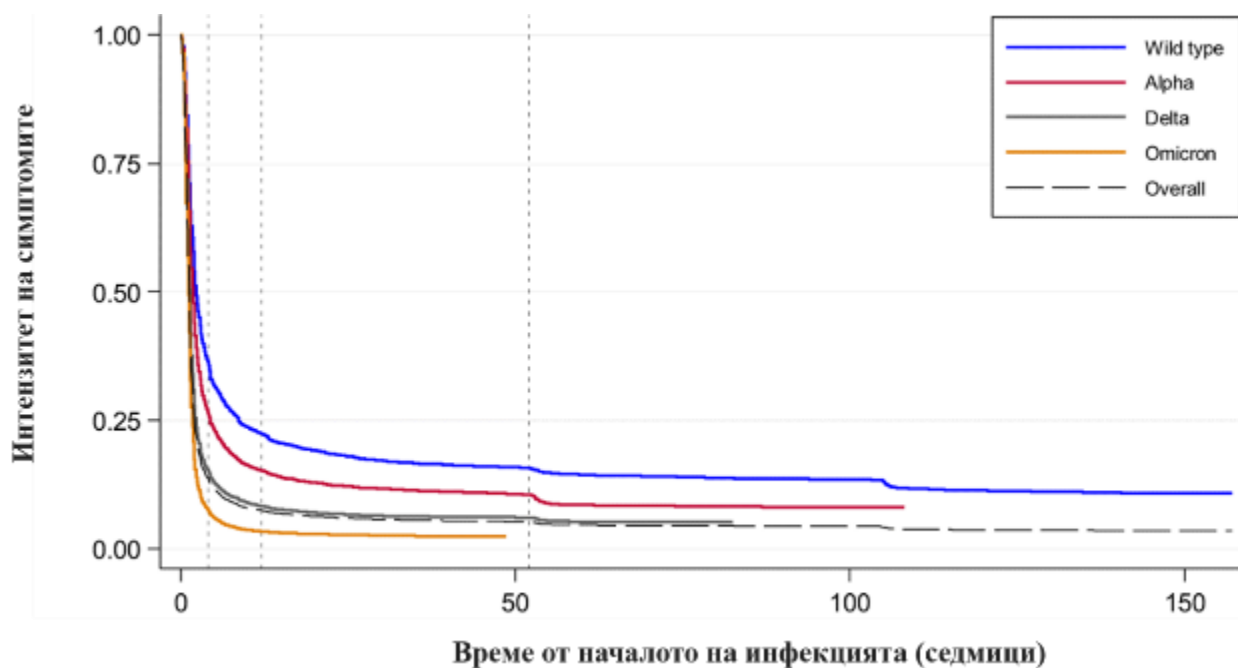
Source: Atchison, CJ, Davies, B., Cooper, E. et al. Long-term health impacts of COVID-19 among 242,712 adults in England. Nat Commun 14, 6588 (2023)

The analysis showed that the average duration of symptomatic illness was about 10 days, but 10% of the individuals who participated in the study reported symptoms lasting more than 4 weeks, 7.5% for more than 12 weeks and 5% for more than year. The analysis showed that almost a third of people reporting symptoms at week 12 would recover within a year.

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[1] Atchison, CJ, Davies, B., Cooper, E. *et al.* Long-term health impacts of COVID-19 among 242,712 adults in England . *Nat Commun* 14 , 6588 (2023)

Also, the study showed that people infected with the Omicron strain were 88% less likely to experience symptoms longer than 4 weeks after infection compared to earlier waves.

The pandemic has had a significant negative impact on the mental health of healthcare workers, with 68.7% of them reporting a deterioration in their mental health due to work and life during the crisis:

- Over 2/3 say Covid-19 has had a serious impact on their mental health
- At the same time, 43.9% of healthcare workers reported a negative impact on their physical health as a result of the pandemic

Another study [2] of the effects of long-term covid-19 (post-acute effects of covid-19) published in January 2023 shows that it is a common debilitating disease that occurs in at least 10% of those infected with the coronavirus and having severe acute respiratory syndrome (SARS-CoV-2) clinic. More than 200 symptoms have been identified affecting multiple organs and systems. At least 65 million people worldwide are estimated to have long-term COVID with more than 651 million documented cases of Covid-19 around the world.

The incidence is estimated to be 10–30% of non-hospitalized cases, 50–70% of hospitalized cases, and 10–12% of vaccinated cases. Long-term COVID is associated with all ages and severities of the acute phase of the disease, with the highest rate of diagnoses between the ages of 36 and 50 years. Most sustained cases of COVID are in non-hospitalized patients with mild disease, as this population accounts for most of the total cases of Covid-19.

Below are only the consequences of long Covid related to the nervous system and cognitive perceptions.

Neurological and cognitive symptoms are a major feature of long-term COVID, including sensorimotor symptoms, memory loss, cognitive impairment, paresthesia, dizziness and balance problems, sensitivity to light and noise, loss (or phantom) of smell or taste, and autonomic dysfunction, often affecting on daily activities. Audiovestibular manifestations of prolonged COVID include tinnitus, hearing loss, and vertigo.

Fatigue was recorded in 32% of individuals and cognitive impairment was found in 22% of patients with Covid-19 at 12 weeks post-infection. The cognitive impairments of prolonged COVID are debilitating, on the same level as intoxication under the drink driving limit or 10 years of cognitive aging, and can increase over time. One study found occurrence in 16% of patients at 2 months post-infection and in 26% of patients at 12 months post-infection. Activation of the kynurenine pathway, specifically the presence of the metabolites quinolinic acid, 3-hydroxyanthranilic acid, and kynurenine, has been identified in long-term COVID and is associated with cognitive impairment.

Cognitive impairment has also been found in individuals who have recovered from Covid-19 and to a greater extent when objective versus subjective measures were used, suggesting that a subset of those with cognitive impairment may fail to recognize and/or report your disability. Cognitive impairment is a feature that occurs independently of mental health conditions such as anxiety and depression and occurs at similar rates in hospitalized and non-hospitalized patients. A report including studies of more than 1.3 million people who have had Covid-19 shows that mental health conditions such as anxiety and depression have normalized over time, but increased risks of cognitive impairment (brain fog) , seizures, dementia, psychosis, and other neurocognitive conditions lasting at least 2 years.

Possible mechanisms for these neuropathologies include neuroinflammation, blood vessel damage through coagulopathy and endothelial dysfunction, and neuronal damage. Studies have found Alzheimer's-like signaling in patients with long-lasting COVID, peptides that self-assemble into amyloid clumps that are toxic to neurons, widespread neuroinflammation, brain and brainstem hypometabolism associated with specific symptoms, and abnormal findings in the

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[2] Davis, HE, McCorkell, L., Vogel, JM *et al.* Long COVID: major findings, mechanisms and recommendations . *Nat Rev Microbiol* 21 , 133–146 (2023)

cerebrospinal fluid in non-hospitalized individuals with long-term COVID along with the association between younger age and delayed onset of neurologic symptoms. Multilineage cellular dysregulation and myelin loss were reported in a recent preprint in patients with long-term COVID who had mild infections, with microglial reactivity similar to that seen with chemotherapy, known as "chemo-brain."

A UK Biobank study [3]involving brain imaging of the same pre- and post-Covid-19 patients as well as control subjects showed a reduction in gray matter thickness in the orbitofrontal cortex and parahippocampal gyrus (markers of tissue damage in areas associated with primary olfactory cortex), overall reduction in brain size and greater cognitive decline in post-Covid-19 patients compared to controls, even in non-hospitalized patients. Although this study looked at individuals with Covid-19 compared to controls and not specifically long COVID, it may have implications for the cognitive component of long COVID. Abnormal levels of mitochondrial proteins as well as SARS-CoV-2 peak and nucleocapsid proteins were detected in the central nervous system. Tetrahydrobiopterin deficiencies and oxidative stress are also found in prolonged COVID.

In eyes, loss of small corneal nerve fibers and increased density of dendritic cells are found in long-term COVID, as well as significantly altered pupillary light responses and impaired retinal microcirculation. SARS-CoV-2 can infect and replicate in retinal and brain organelles. Other manifestations of prolonged COVID include retinal hemorrhages, phantom floaters, and retinal vein occlusion.

Recent reports have shown low blood cortisol levels in patients with long-term COVID compared to control individuals who have a duration of symptoms greater than 1 year. The low production of cortisol by the adrenal gland should be compensated by an increase in the production of adrenocorticotropic hormone by the pituitary gland, but this is not the case, maintaining a dysfunction of the hypothalamic-pituitary-adrenal axis. It may also reflect an underlying neuroinflammatory process.

Two-year retrospective studies published in the summer of 2022 and including an analysis of 1,284,437 patients [4]who recovered from Covid-19 showed an increased risk of neurological and psychiatric complications in the weeks and months after recovery.

The adverse effects of SARS-CoV-2 infection vary widely. Risks of common psychiatric disorders returned to baseline after 1-2 months (mood disorders after 43 days, anxiety disorders after 58 days) and subsequently reached the same overall frequency as the matched control group (mood disorders after 457 days) , anxiety disorders – after 417 days days). Conversely, the risks of cognitive deficits (known as brain fog), dementia, psychotic disorders, and epilepsy or seizures were still elevated at the end of the 2-year follow-up period.

Post-Covid-19 risk scenarios differ in children compared to adults: in the 6 months after SARS-CoV-2 infection, children were not at increased risk of mood or anxiety disorders, but there was an increased risk of cognitive deficiency, insomnia, intracranial hemorrhage, ischemic stroke, nerve, nerve root and plexus disorders, psychotic disorders, epilepsy or seizures.

Unlike adults, cognitive deficits in children have a limited risk horizon (75 days) and a limited rate leveling time (491 days). A significant proportion of older people who received a neurological or psychiatric diagnosis subsequently died, particularly those diagnosed with dementia, epilepsy or seizures. Risk profiles were similar immediately before and after the emergence of the alpha variant of Covid. Just after (versus just before) the appearance of the delta variant, increased risks of ischemic stroke, epilepsy or seizures, cognitive deficits, insomnia, and anxiety disorders compounded by increased mortality have been observed. A

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[3]UK Biobank is a large-scale biomedical database and research resource containing in-depth genetic and health information on half a million individuals in the UK.
[4]Data source: TriNetX Electronic Health Record Network, an international network of de-identified health record data from approximately 89 million patients collected from hospital, primary care, and specialty providers

lower mortality was reported with omicron than immediately prior to the appearance of the variant, but the risks of neurological and psychiatric outcomes remained similar.

Figure 2. 6-month hazard ratios for neurological and psychiatric sequelae after Covid-19 versus other respiratory infection in different age groups
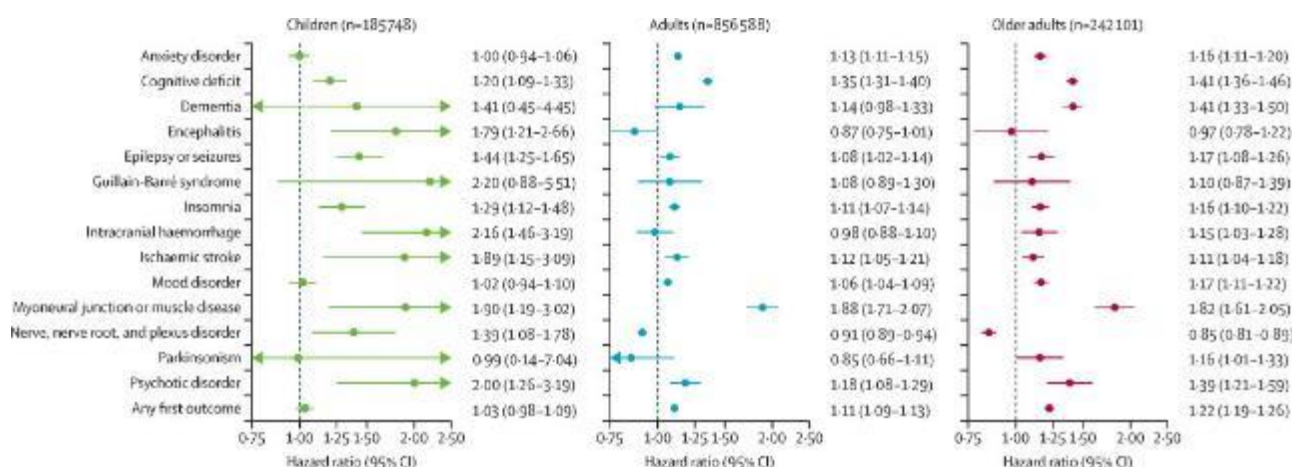
Source: Taquet, M. et al. Neurological and psychiatric risk trajectories after SARS-CoV-2 infection: an analysis of 2-year retrospective cohort studies including 1,284,437 patients. Lancet Psychiatry 9, 815–827 (2022)

This analysis of 2-year retrospective cohort studies of individuals diagnosed with Covid-19 shows that the increased incidence of mood and anxiety disorders is transient, with no overall excess of these diagnoses compared to other respiratory infections. Conversely, the increased risk of psychotic disorder, cognitive deficits, dementia, and epilepsy or seizures persisted throughout.

Different scenarios suggest different pathogenesis for these results. Children have a more benign overall psychiatric risk profile than adults, but their persistently higher risk of some diagnoses is a cause for concern. The fact that neurological and psychiatric outcomes are similar during delta and omicron waves indicates that the burden on the health system can persist even with variants that are otherwise less severe. These findings are relevant to understanding the individual-level and population-level risks of neurological and psychiatric disorders following SARS-CoV-2 infection and may help inform decision-making in other similar pandemics.

4. STATISTICAL DATA ON THE MEDICAL PERSONNEL IN THE CROSS-BORDER AREA OF BULGARIA WITH GREECE

The cross-border region with Greece on the Bulgarian side of the border covers the districts of Blagoevgrad, Smolyan, Kardjali and Haskovo. At the end of 2022, the population of the four regions was 731,462 people or 11.3% of the population of Bulgaria. For the four-year period from 2019 to 2022, a population decrease of just over 58,000 people (7.4%) was observed . For comparison, the population of Bulgaria for the same period decreased by over 500,000 people as a result of mortality and migration (7.2%) .

On the territory of the cross-border area with Greece, there are 19 multi-specialty hospitals, 14 specialized hospitals, 4 diagnostic-consultative centers, 71 medical centers and 137 independent medical-diagnostic and medical-technical laboratories.

Table 1. Number of medical and healthcare establishments in the areas of the cross-border area with Greece as of 31.12.2022.

Areas	Treatment facilities for hospital care		Treatment facilities for outpatient care			Other [4]
	Multidisciplinary hospitals	Specialized hospitals	DKC [1]	MC [2]	SL [3]	
Blagoevgrad	5	5	-	32	53	9
Smolyan	4	3	1	14	29	3
Kurdzhali	5	1	1	5	15	6
Haskovo	5	5	2	20	40	5
TOTAL	19	14	4	71	137	23

Source: National Statistical Institute

Notes:

[1] *Diagnostic-consultative centers*

[2] *Medical centers*

[3] *Independent medical-diagnostic and medical-technical laboratories*

[4] *Other medical and health facilities, incl. medical and dental centers*

The total number of doctors in the four areas of the cross-border region is about 3,000, of which just over 74% are doctors and the remaining 26% are dentists. Medical health care professionals number just over 4,000.

Table 2. Number of medical personnel in the four regions of the cross-border region with Greece as of 12/31/2022.

Areas	Doctors	Dentists	Medical health care professionals
Blagoevgrad	904	322	1,520
Smolyan	303	120	617
Kurdzhali	373	136	812
Haskovo	645	192	1 119
TOTAL in the four areas	2,225	770	4,068
Share, %	*31.5%*	*10.9%*	*57.6%*
Bulgaria (total)	29,599	7,602	44,493
Share, %	*36.2%*	*9.3%*	*54.5%*

Source: National Statistical Institute

There is a relatively low provision of doctors compared to the population. With a national average of 218 people per doctor and 848 people per health medicine doctor, in the four districts of the cross-border region the values are 333 and 950, respectively.

The distribution by functions among the medical specialists by "health care" shows a preponderance of the number of nurses (all profiles) with a share of 67.9%, followed by laboratory assistants (medical and X-ray) - a share of 10.4%, paramedics (7.2%) and midwives (7.0 %). Dental technicians have a share of 2.6%, and other specialists - 4.9%.

Table 3. Number of medical specialists by healthcare cares in the healing ones and healthcare establishments in the areas of the cross-border area with Greece as of 31.12.2022.

Areas	Med. sisters	Laboratory workers	Paramedics	Midwives	I gritted my teeth	Others
Blagoevgrad	1 111	150	79	72	37	71
Smolyan	372	71	65	47	19	43
Kurdzhali	534	78	66	77	22	35
Haskovo	745	124	81	89	31	49
TOTAL in the four areas	**2,762**	**423**	**291**	**285**	**109**	**198**
Bulgaria (total)	**28,827**	**5,933**	**1 733**	**3,285**	**1 628**	**3,087**

Source: National Statistical Institute

5. INCIDENCE AND MORTALITY FROM COVID-19 IN BULGARIA

As of September 1, 2023, there are more than 1.3 million people infected with Covid-19 in Bulgaria. Almost the same number of cured persons. The death toll has reached nearly 39,000 people in the period since the start of the pandemic. As of the same date, more than 11.3 million tests were performed, as well as more than 4.6 million vaccines were administered.

It is noteworthy that in 1 year, from 1.09.2020 to 1.09.2021, 18,267 people died from Covid-19, from 1.09.2021 to 1.09.2022 – 18,707 people, and after the passing at the peak of the pandemic - from September 1, 2022 to September 1, 2023, 847 people died as a result of the disease.

Figure 3. Dynamics of the incidence of Covid-19 in Bulgaria in the period 2020 – 2023.

Source: https://covid.tobel.bg

The mortality rate from Covid-19 by region shows the highest number of deaths from Covid-19 in Blagoevgrad region, followed by Haskovo region, Smolyan region and Kardzhali region.

Table 4. Deaths from C ovid-19 in the four regions of the cross-border region with Greece and in Bulgaria in the period 2020-2022.
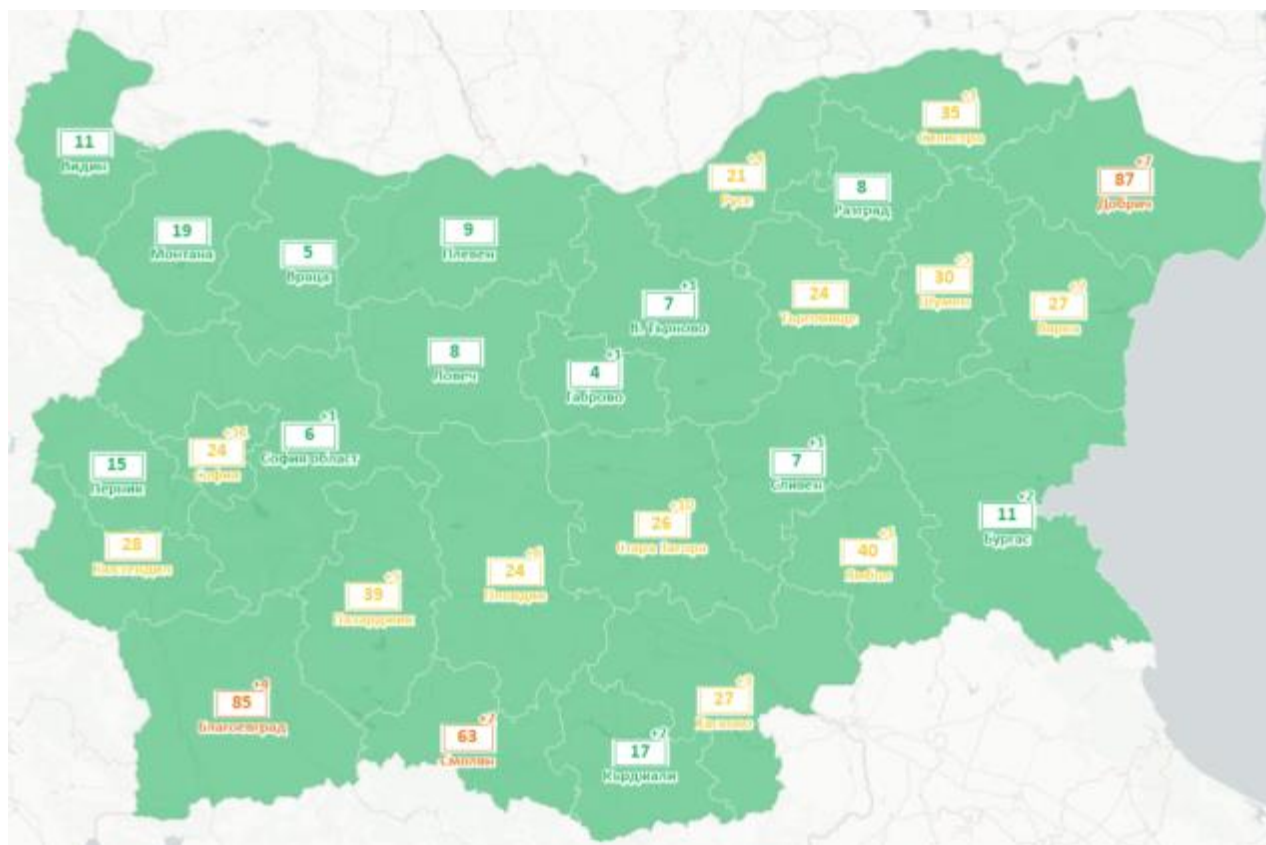
Areas	2020	2021	2022	Total	Share of all, %
1. Blagoevgrad	495	1 079	307	**1 881**	40.6%
2. Haskovo	233	856	329	**1 418**	30.6%
3. Pitched	184	430	157	**771**	16.6%
4. Kurdzhali	102	381	81	**564**	12.2%
Total	**1 014**	**2,746**	**874**	**4,634**	**100.0%**
Bulgaria	**8,554**	**27,588**	**8,993**	**45 135**	**-**

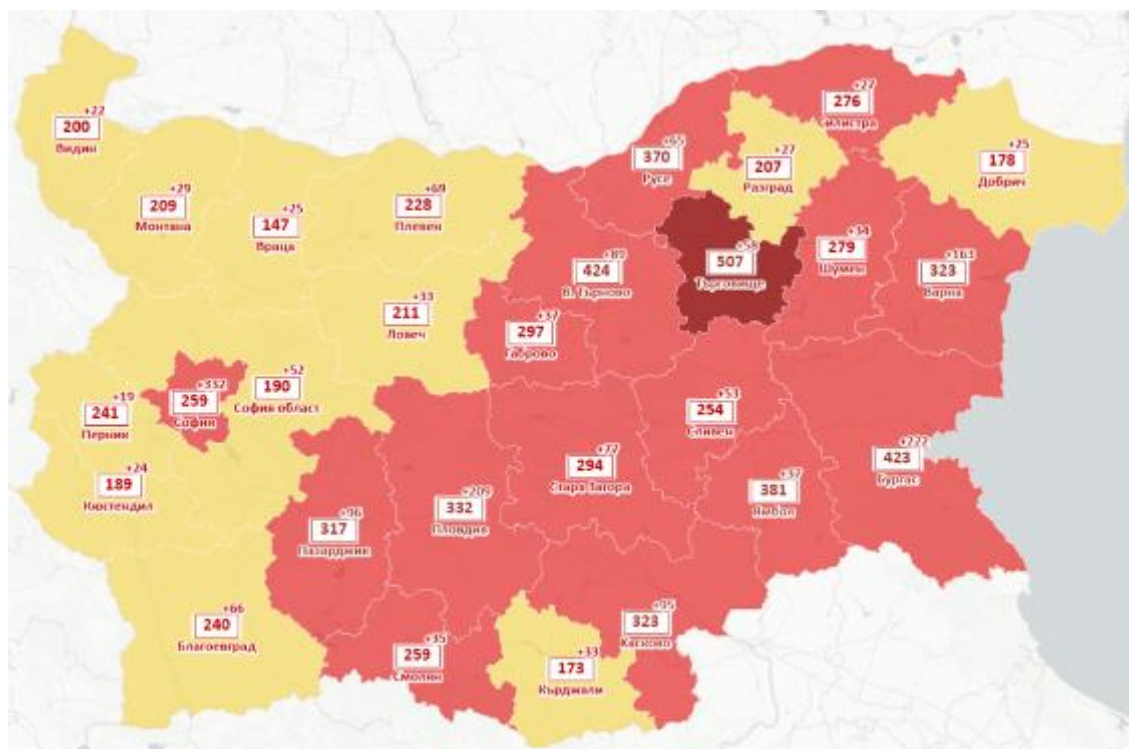| Share of the 4 regions in relation to Bulgaria	11.9%	10.0%	9.7%	10.3%	-

Source: National Statistical Institute

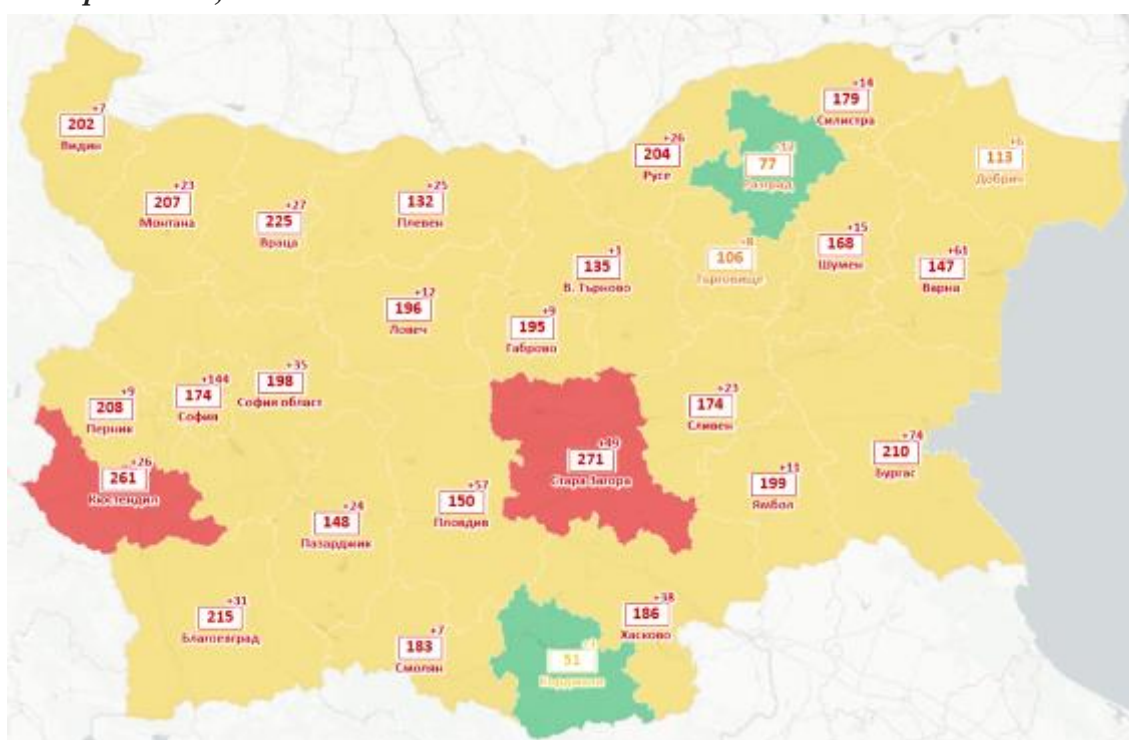**Figure 4. Map of the incidence of Covid-19 by district, 2020 – 2023.**

September 1, 2020

September 1, 2021

September 1, 2022

September 1, 2023

Source: https://covid.tobel.bg

Statistics on morbidity among medical personnel in Bulgaria show that more than 26,400 medical specialists have experienced the disease. Divided by group, this means that nearly 18% of doctors were sick with Covid-19, about 23% of nurses and over 72% of the other categories of medical specialists in health care (paramedics, orderlies, etc.) .

Table 5. Confirmed cases of illness from Covid-19 for medical staff as of April 21, 2023.

Kind	Number
Nurses	8,546
Doctors	6,577
Sanitary	4,974
Paramedics	490
Others	5,855
Total	**26,442**

Source: https://coronavirus.bg/bg/statistika

6. CHARACTERISTICS OF PROFESSIONAL BURNOUT

Professional burnout is one of the serious problems of modern professional activity, and according to Leiter and Maslach (2005) it is currently the biggest occupational risk. The World Health Organization defines it as the "disease of the 21st century". The International Labor Organization estimates annual losses as a result of occupational stress and occupational burnout at USD 200 billion, incl. sick leave, costs of hospitalization and outpatient treatment, losses from reduced labor productivity, etc.

In the Tenth Revision of the International Classification of Diseases, occupational burnout is described in class XXI under heading Z73.0 as "Exhaustion - state of exhaustion of vital forces". According to Schaufeli (2009), burnout is: "a persistent, negative, work-related state of fatigue in healthy individuals that is primarily characterized by exhaustion accompanied by distress, feelings of reduced effectiveness, low motivation, and the development of dysfunctional attitudes and behavior at work".

Z73.0 Fatigue - state of exhaustion of vital forces

Overfatigue syndrome is a state of depletion of vital forces. It also includes the following two syndromes:

(1) Syndrome of professional exhaustion - professional burnout

This syndrome is observed in helping social professions. They are related to solving the problems of people in need of social, psychological, physical and other types of professional assistance. Medical staff, psychologists, social workers, staff in children's and nursing homes, clerks in institutions, saleswomen and others work in such conditions.

The syndrome is observed more often in those people who work in poor living conditions, who have low salaries, when they work tiring and exhausting work in terms of volume and monotony, etc. Due to the fact that employees have to fulfill their duties on a daily basis, negative factors accumulate over time and lead to one or another psychophysiological and psychosomatic manifestations, as well as to the deterioration of physical health.

(2) Household exhaustion syndrome - household burnout

It is a new disease that arose as a result of the long and severe crisis period of the transition after the beginning of the 1990s of the 20th century. Changes in moral and ethical norms and the value system, corruption, crimes, danger to life and property, influx of drug addicts among children, etc. also lead to the emergence of this syndrome.

A very difficult barrier of frustration to overcome, to the point of impossibility, is money. Its implementation is difficult, to the point of stalling. The members of the work force and the family cannot help each other because of the social difficulties described above. They live continuously in conditions of important frustrating situations.

According to S. Rozenzveig , the following types of frustration can be differentiated:
– Primary frustration concerning failure to satisfy biological needs
– Secondary frustration concerning non-satisfaction of needs of a mental nature

Another type is:
– Existential frustration, concerning the meaning of life, in which there are no "prospects in life" for the individual
– Group, when social conditions and interactions affect a group of people

Professional burnout reflects on everyday life, and domestic burnout reflects on professional duties. Professional and household burnout are interconnected and interacting based on feedback .

Symptoms and signs of overtiredness:
– Anxiety
– Irritability
– Symptoms of depression
– Weight loss

| – Loss of appetite |
| - Headache |

According to Maslach, Schaufeli & Leiter (2001), occupational burnout mainly affects social professions (doctors, nurses, teachers, social workers and service professions) because the main aspect of work in these professions is the relationship between caring staff and the recipient of care/services.

Professional stress and related professional burnout lead to serious consequences both for the mental well-being of workers and for the efficiency of the work process. Professional burnout is a long-term response to workplace stress and occurs mostly in those for whom practice is a social calling (Gabassi et al, 2002). The specificity of the professional activity of those working in the field of health care requires medical specialists to possess personal and professional qualities, as well as a continuous process of professionalization and versatile education. The work of medical professionals is responsible, requires endurance, which implies high and constant psycho-emotional stress, as well as the need to make decisions in emergency situations.

The entire professional activity of medical professionals implies emotional saturation and a high percentage of stressogenic factors. Emotions, as a rule, are ambivalent: satisfaction from a successful operation or treatment, a sense of self-worth, empathy for others, acceptance and respect of colleagues, but also regret, depression due to a wrong diagnosis or errors of drug therapy, envy of successful colleagues , a feeling of dissatisfaction with the profession, etc. (Latenko Yu.A., 2009).

Professional burnout is the result of the prolonged impact of cumulative occupational stress and failure to cope with it. Stressful factors can originate both from the organization and from the individual (Achkova, M., 2001). The personal factors that determine professional burnout are the orientation towards career development, the lack of support from relatives and the presence of sources of stress outside the organization. Therefore, social support is an important factor in preventing the occurrence of professional burnout or reducing it.

Social support is the physical and emotional comfort that people receive from their family, friends, colleagues, etc. Most prominent among these enhancing factors is social support from status equals, the spouse, the organization itself. These factors foster the belief that we belong to a community of people who love us and can care for us. It is social support that explains the ability of some people to successfully resist stressors.

Almost all research on this issue, proves a negative relationship between burnout and social support in representatives of almost all professions related to the provision of professional help to people (Bennet L. et al., 1994; Gerengaiss ER et al., 1997; Himie DP et al., 1991; Melchior MEW et al., 1997; Van Yperen NW, 1998; Virginia SG, 1998). Social support can take many forms. It can be emotional, informational or physically tangible (practical).

Emotional support increases when supportive activities and positive attitudes from others increase an individual's self-esteem and improve his or her confidence and ability to cope with challenges. Informational support helps a person identify new strategies for solving specific problems, and real support means giving certain resources to help that person solve the problems they are facing. (Hawton, Rodham & Evans, 2006).

Research shows that social support can be effective in reducing the effects of professional burnout, by removing some of the predisposing factors that lead to its development, or by protecting the person, regardless of the conditions, so that he does not reach burnout. According to Dollard, Dorman, Boyd, and Winefiled (2003), social support is necessary to create and maintain both physical and mental health—regardless of the presence or absence of work stressors.

The role of social support has been widely studied by scholars. Maslach, Schaufeli & Leiter (2001) opine that lack of adequate support from management is even more damaging than lack of support from colleagues. In their medical research, Prins, Hoekstra-Weebers, Gazendam-Donofrio, Wiel, Sprangers, Jaspers & Heijden (2007) proved that lack of social support has a

direct effect on emotional exhaustion, and that feelings of depersonalization (the most reliable predictor of burnout) may be conditioned by the degree of dissatisfaction that HCPs feel about the emotional support they receive (or do not receive) from their supervisors.

Studies prove the relationship between family status and professional burnout (Maslach S., Jackson SE, Leiter MP, 1996), which prove that single, divorced and widowed individuals are more prone to the syndrome.

Other authors demonstrate the impact of family social support and influence on burnout syndrome in medical professionals (Bryant, 1994; Beaver, Sharp & Cotsonis, 1986; Barnett, Hopkins & Jackson, 1986). Demir et al. (2003) suggested that social support from family is important for health professionals to cope with professional burnout. They found that social support provided by family can be associated with lower emotional exhaustion and higher personal achievement in professionals.

The researchers also emphasize the importance of social support from family when medical professionals face burnout. They indicate that a bad relationship with family members has a negative impact on the health of the professional in general, and that if he experiences problems in his family, the risk of professional burnout increases.

Emotional stress and exhaustion due to professional activity is a problem for medical professionals on a global scale, and one of the most effective ways to manage stress is by eliminating one's own stressors. In this context, the presence of social support will lead to a reduction in burnout, achieving not only better satisfaction of medical professionals, but also a higher retention rate of healthcare workers.

7. CLASSIFICATION OF AFFECTIVE DISORDERS

Bulgaria applies the Tenth Revision of the International Classification of Diseases (WHO, 1992). According to her, affective disorders (heading F3) are divided into:

F3 Affective disorders

F 30 Manic episode (manic, hypomanic, with or without psychotic symptoms, other)

F 31 Bipolar affective disorder (currently in phase, severe, with or without psychotic symptoms, other)

F 32 Depressive episode (mild, moderate, severe, with or without psychotic symptoms. Other)

F 33 Recurrent depressive disorder (severity as F 32)

F 34 Chronic affective disorders

F 34.0 Cyclothymia (marked fluctuations, > 2 years)

F 34.1 Dysthymia (> 2 years)

Below are some of them that can be manifested in the different phases of the path to burnout syndrome.

7.1. Depressive episode (F 32.)

A depressive episode is a period characterized by a lack of mood and usual symptoms of depression lasting 2 weeks or more. Single episodes of depressive reaction, psychogenic depression and reactive depression are also observed in it.

Symptoms:

- Central – dysthymia (permanent depressed mood), reduced interests, anhedonia (inability to experience joy), hypobulia (reluctance to work or any other activities)/asthenia (general/overall body weakness, weakness)
- Additional - decreased concentration, decreased self-esteem, guilt, pessimism, suicidal thoughts, insomnia (sleeplessness)/hypersomnia (excessive sleepiness and sleep), reduced appetite
- Somatic - significant loss of appetite, weight loss, waking up in the early hours of the night, psychomotor retardation (decreased volitional activity) or agitation (strong emotional arousal accompanied by feelings of anxiety and fear), morning sadness, limited response to external stimuli

Mild depressive episode (F32.0)

Two or three of the above symptoms are usually present. The person usually suffers from the expressed symptoms, but is probably able to continue to perform their activities.

Moderately severe depressive episode (F32.1)

Usually, four or more of the above symptoms are present and the person experiences significant difficulty in continuing their usual activities.

Major depressive episode without psychotic symptoms (F32.2)

A depressive episode in which several of the above symptoms [5]are prominent and stressful, usually low self-esteem and feelings of worthlessness or guilt. Suicidal thoughts and actions are common and a number of psychosomatic symptoms are usually present.
Depression with agitation
Severe depression
Vital depression

Major depressive episode with psychotic symptoms (F32.3)

A depressive episode as described above, but in which hallucinations, delusions (eg, impoverishment, catastrophizing, auditory hallucinations), psychomotor retardation, or stupor are present to such an extent that normal social activity is impossible. There is a danger to life that can result from suicidal behavior, dehydration or starvation. Hallucinations and delusions can be either mood-congruent or mood-incongruent.

Single episode of:
- Major depression with psychotic symptoms
- Psychogenic depressive psychosis
- Psychotic depression
- Reactive depressive psychosis

Other depressive episode (F32.8)

Not meeting the criteria, but a significant depressive episode (e.g. persistent fatigue, pain without an organic cause, etc.).

Depressive episode not elsewhere specified (F32.9)

- Depression
- Depressive disorder

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[5]Three central and four additional symptoms (one of them particularly pronounced), 2 weeks (or shorter if the symptomatology is particularly intense).

7.2. Recurrent depressive disorder (F33.)

A disorder characterized by recurrent depressive episodes [6], as described under depressive episode (F32) , without a history of isolated episodes of elevated mood or increased energy (mania) . However, short-term episodes of mild mood elevation and hyperactivity (hypomania) may occur immediately after a depressive episode, sometimes provoked by antidepressant treatment.

The most severe forms of recurrent depressive disorder have much in common with early views of manic-depressive psychosis, melancholia, vital depression, and endogenous depression. The first episode can occur at any time from childhood to late adulthood. The onset can be acute or insidious, and the duration varies from 3 to 12 months. The risk of a recurrent depressive disorder also developing a manic episode never completely disappears. If this happens, the diagnosis can be changed to bipolar affective disorder.

Recurrent depressive disorder includes recurrent episodes of:
- Depression reaction
- Psychogenic depression
- Reactive depression
- Seasonal depressive disorder

Recurrent depressive disorder, current episode – mild (F33.0)

A disorder characterized by recurrent depressive episodes, with the current episode being mild and no history of previous manic episodes.

Recurrent depressive disorder, current episode – moderately severe (F33.1)

A disorder characterized by recurrent depressive episodes, with the current episode of moderate severity and no history of previous manic episodes.

Recurrent depressive disorder, current episode—severe without psychotic symptoms (F33.2)

A disorder characterized by recurrent depressive episodes, with the current episode being severe, without psychotic symptoms, and no history of previous manic episodes:
- Endogenous depression without psychotic symptoms
- Major depression, recurrent, without psychotic symptoms
- Manic-depressive psychosis, depressive type, without psychotic symptoms
- Vital depression, recurrent, without psychotic symptoms

Recurrent depressive disorder, current episode—severe with psychotic symptoms (F33.3)

A disorder characterized by recurrent depressive episodes, the current episode being severe, with psychotic symptoms, and no history of previous manic episodes:
- Endogenous depression, with psychotic symptoms
- Manic-depressive psychosis with psychotic symptoms
- Recurrent severe episodes of:
  - Severe depression
  - Psychogenic depressive psychosis
  - Psychotic depression

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[6]Criteria for episodes: minimum of two episodes suffered, no mania, remitting form.

–   Reactive depressive psychosis

Recurrent depressive disorder, now in remission (F33.4)

The patient has had two or more depressive episodes in the past, such as those described above, but is currently free of depressive symptoms for several months.

8. CLINICAL PICTURE OF DEPRESSION

Among the main symptoms of the depressive syndrome, two stand out - dysthymia (permanent depressed mood) and anhedonia (inability to experience joy). The duration of these symptoms, as a rule, is weeks, since they can appear in a short time even in healthy individuals. Permanently depressed mood may be combined with reduced ability to make decisions (hypobulia), distraction (hypoprosexia, poor concentration of attention), retardation (slowed psychomotor) or agitation (tension with increased motor activity), most often decreased appetite with a reduction in body weight (rarely increased with weight gain), disturbed sleep (insomnia with difficulty falling asleep or painful awakening in the wee hours of the night, but less often hiersomnia), decreased libido.

Various mental changes are often found. Most often, a heightened general pessimistic attitude is established. In other cases, a deep preoccupation with physical health is marked (hypochondriacal thoughts that can reach severe hypochondriacal delusions), which are ultimately expressed in the so-called nihilistic delusions (experience that an organ is decaying or "rotted", "melted", etc.). The general experience of failure in the present or the past can amount to intense delusions of guilt and sin. The experience of impoverishment and ruin can manifest itself in the extreme as a pauperistic delusion. Thoughts of persecution and hostility from others (paranoid thoughts), which can also reach a paranoid level (i.e. patients are absolutely convinced and unconvinced), occur significantly less often.

Particular attention should be paid to suicidal thoughts or intentions. In such cases, additional questions should always be asked about the patient's development of a suicide plan. In case of suicidal intentions or plans, the GP always refers the patient to a psychiatrist.

Along with this, a number of "subjective" experiences are established that do not correspond to the objective facts - the patient has the feeling that he is losing his memory (depressive pseudodementia), that he has not slept at all for days and weeks (depressive experience of complete absence of sleep). A special place among these subjective experiences is occupied by the painful feeling of loss of feelings for the closest ones. A typical example is the mother's extremely distressing feeling of loss of feeling for her own child.

Other somatic depressive symptoms are:
*   Sleep changes (insomnia or hypersomnia)
*   Changed appetite (decreased or increased)
*   Decreased or increased body weight
*   Loss of libido
*   Headache
*   A variety of pains such as chest pain or back pain
*   Itching
*   Skin dryness
*   Blurred vision
*   Tachycardia
*   Constipation (complete lack of defecation)
*   Frequent urination

Anxiety and depressive symptoms can be viewed on a continuum. Thus, distinguishing them and accepting comorbidity between the two groups is largely conditional. In medical

practice, pure anxiety disorders are diagnosed, the treatment of which has certain specificities, but it has many features in common with the treatment of depressions.

Figure 5. Overlap of anxiety and depression
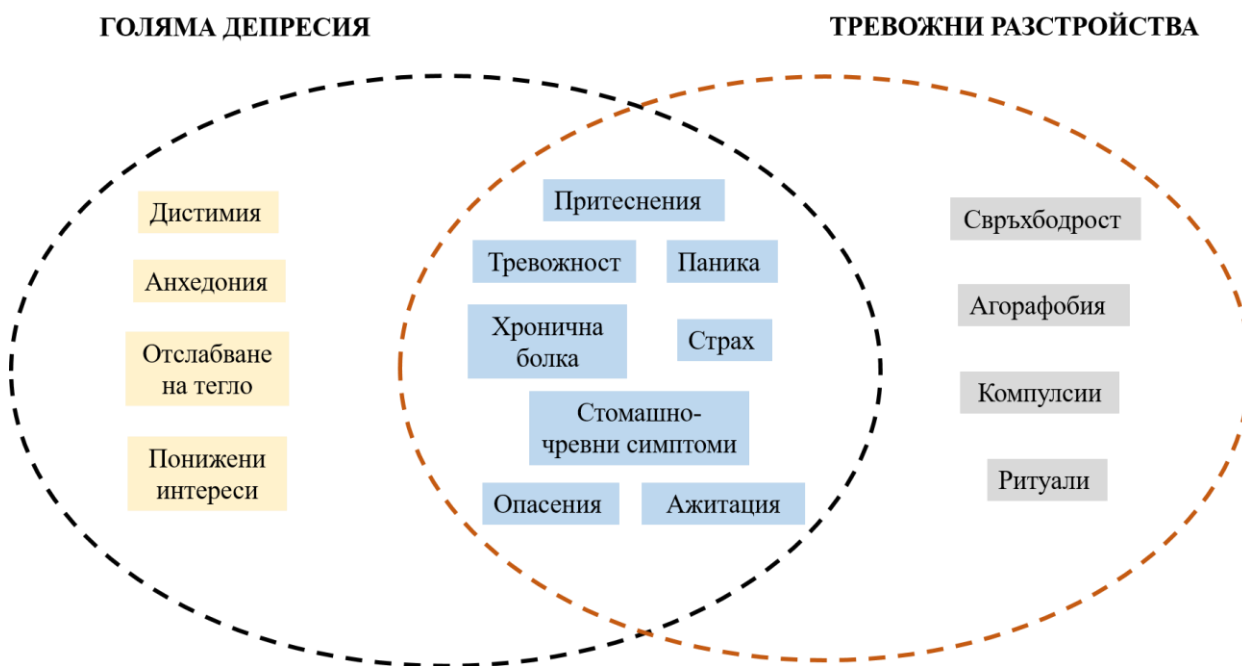
Source: Marinov, P. Testing a screening approach for depressive and anxiety disorders, Varna Medical University, 2016.

These symptoms are extremely easy to diagnose with a few sample questions:
1. How do you feel? Has there been a change in your mood in the last two weeks?
2. Has your ability to take pleasure in (enjoy) things been weaker in the past two weeks?

If the answer to one or both questions is YES, a targeted interview should be initiated to diagnose the presence or absence of a depressive disorder.
Additional questions:
1. Has your appetite been decreased (or increased) recently? Have you had changes in body weight of more than 3.5 kg in the last month?
2. Have you had difficulty falling asleep in the past month (or waking at night or oversleeping)?
3. (Are you moving and speaking more slowly than usual, or are you fidgety and restless?
4. Do you feel tired and run down most of the day?
5. Do you feel guilty or worthless most of the time?
6. Do you have difficulty concentrating or making decisions?
7. Do you think about harming yourself, taking your own life, or that you are better off dead?

If the answer to 5 or more questions is YES, it should be determined whether the symptoms appeared at the same time and whether they persisted for at least two weeks. The 5 out of 9 answer system is accepted in most developed countries.

9. DEPRESSION IN DOCTORS

A number of studies present an undeniable picture of an increased level of depression among physicians. Studies of depression and suicidal risk among doctors began as early as the 1970s. The results show that the number of doctors with clinical signs of depression depends on the years of professional experience, being the highest in the first year of the career - about 30%. The percentage is similar for general practitioners (GPs) , regardless of the years dedicated to the profession, with depression among female doctors amounting to 47% (Firth-Cozens, 1990). A new study in Germany shows that depression in doctors is strongly related to job dissatisfaction (Abholz, 2012). Another German study showed that 23% of German general practitioners had symptoms that exceeded the threshold for depression, which was significantly higher than in the general population (Unrath et al., 2012). Unfortunately, similar data are still missing for Bulgaria.

Despite the generally accepted view that a major role in the tendency to depression in physicians is played by workload and shortened sleep, these factors correlate weakly or not with depression in various studies. Obviously, the choice of a helping profession is related to early childhood experiences in the family, which led the individual to the desire to be a savior, to be good, as well as to fantasies of omnipotence. In the parental family of the future doctor there is often an illness or death of a loved one.

Self-criticism is an important depressiogenic factor, and it is further reinforced by external blaming authority figures and institutions. Last but not least, is the proximity to death inevitable in medicine. A study by the University of Medicine in the city of Varna on depression in GPs shows a tendency towards too high values of the disease in this cohort, which are significantly more pronounced than those in the general population (Marinov, 2009). This fact requires a detailed analysis of the causes of this phenomenon. One of these may be the unpredictability of nosography that GPs face. Another could be the lack of time. In addition, in general practice there are a number of unclear inter-institutional relationships, which in aggregate give rise to considerable distress. An even more worrying fact is the high suicide risk among the examined doctors.

The suicide risk among doctors arising from the reasons listed so far is relatively higher than in the general population. It is further reinforced by the psychological difficulty of assuming the role of a patient, as well as by the stigma of psychiatry, which does not escape the medical staff.

10. PREVENTION OF PROFESSIONAL STRESS IN NURSES

Nurses in the cross-border region (2022) predominate among the medical staff, including doctors, dentists and healthcare professionals, accounting for nearly 40% of all. They also have the largest proportion of all "healthcare" medical professionals (67.9%) in medical and health facilities in the four districts. Therefore, the text below presents the status and activities for the prevention of occupational stress in nurses. In hospital nursing, a comprehensive vision for the prevention of stress among nurses at the institutional (hospital) level is needed because:

- All patients need equal care and treatment, regardless of their illness
- The profession of a nurse includes care for patients with any pathology, which does not imply refusal of work due to the nature of the diseases (respectively the wards)
- There is internal mobility within hospitals – moving nurses from one ward to another to cover staff shortages
- During shifts, hospital staff (doctors and nurses) serve patients from different departments

- The functioning of a hospital depends on the activity of all departments, therefore the prevention of stress and burnout syndrome should be a strategic priority at the hospital management level

The problem of professional stress and professional burnout in hospitals should not be considered separately for individual medical specialists or by departments, but needs a comprehensive vision, at the general hospital level, since the functioning of a hospital depends on the activity of the whole team, on many different specialists. Approaches to dealing with stress should be developed at a hospital-wide management level, with care for each member of staff, regardless of the department in which they work.

10.1. Types of stressors

10.1.1. Professional-organizational stressors

The medical profession is characterized by constant learning of new methods and methods of treatment and research, difficulties in mastering new techniques or dealing with old equipment. Work with many patients, multiple functions and the increased workload of medical professionals in recent years of shortage of health professionals, we also refer to the group of organizational stressogens in professional life.

The most prominent stressor is being overburdened with ever-increasing written work, duplicating documents to fill out and reporting medical activity. The introduction of electronic systems in modern health care, in addition to better reporting and control of activity, leads to an increase in the employment of medical personnel, at the expense of time for patient care. There is a need to train older nurses in computer skills.

10.1.2. Psycho-emotional stressors

Work load is a complex problem, which includes not only physical but also intellectual efforts - mental and emotional commitment. It is also largely related to personal coping resources. When a member of the staff exceeds the permissible individual thresholds of endurance and adaptability, stressful conditions are created, which, with prolonged action and high intensity, lead to accumulation and the appearance of signs of the burnout syndrome.

Types of psycho-emotional stressors:
- No possibility of complaints
- Carrying out uncharacteristic activities
- Subordinate role of copper. sister
- Lack of autonomy
- Continuous patient care
- Constant contact with people with impaired health
- High expectations and demands from patients and relatives
- Lack of outcome of nursing care
- Bad psychological climate in the workplace
- Working with patients who are close (acquaintances, relatives)

Workplace stressors are not isolated, but in close interaction with socio-economic processes, with culture and traditions, with social factors, family and friendly environment. All of them have an impact on the worker through the moderating action of the individual characteristics of the personality.

There is a discrepancy between the increased professional requirements for the functions of the nurse and the low social status of the nursing class in Bulgaria, leading to tension, which is a prerequisite for the occurrence of stressful situations. The most negative and stressful thing

is the discrepancy between qualifications, responsibilities and realization in the work environment:

- High professional responsibilities but low pay
- High public importance of the nursing profession, but low social prestige
- High expectations and motivation at the beginning of the career, but low satisfaction with the work environment
- High requirements for acquiring education, but uncertain prospects for career growth
- Availability of necessary knowledge and skills, but limited opportunities for autonomy in the profession

10.2. Presence and level of burnout syndrome components

A study [7]conducted in the period from 01.10.2014 to 01.10.2017 investigated 3 factors that have an impact on the occurrence of burnout syndrome among nurses in Bulgaria.

- Emotional exhaustion
- Depersonalization
- Self-presentation

10.2.1. Emotional exhaustion

Emotional exhaustion is a component of the burnout syndrome, which is determined by the reduced energy resources of those working with large numbers of people and responsibilities, such as those who practice the profession of nursing. Over 30% of nurses experience the burden of emotional stress, about 20% - every day, and about 10% - several times a week.

The emotional burden in the medical profession is due to the continuous contact with severe pathological conditions, the inability to meet the high expectations of a cure and the empathic experience of dramatic human suffering.

The statements characterizing emotional exhaustion, indicated by the surveyed health professionals as leading in strength and frequency of manifestation, show the complexity and multifunctionality of health care implementation. The profession includes, in addition to the technical implementation of medical procedures according to doctor's appointments, the implementation of good communication skills and effective relationships with patients, their relatives and colleagues. The health care professional experiences an enormous workload in resolving the physical and psychological problems of patients who sometimes exhibit fear, aggression or depression. Daily duties often cause negative experiences in nurses and lead to emotional exhaustion. The increased degree of emotional exhaustion distances medical professionals from the patient and turns them into a soulless body for performing technical manipulations, changing the supportive role of the nurse.

10.2.2. Depersonalization

Depersonalization is understood as the development of a negative attitude towards oneself and others in the process of work and communication, social isolation and hostility primarily towards users of health services.

Persistent symptoms of depersonalization were shown by about 10% of the nurses surveyed, occurring from every day to every week. Among them, the most common negative indicators at about 17% are the appearance of hard-heartedness in relations with patients. Indifference, as an attitude towards the suffering and problems of sick people, covered about 8%

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[7]Georgieva, Z. Status and strategic guidelines for the prevention of occupational stress in hospital nurses. Dissertation abstract for awarding the educational and scientific degree "doctor" in public health management, 2018, Medical University "Prof. Dr. P. Stoyanov" - Varna.

of the respondents. Traits such as callousness, cynicism, indifference to suffering, and formalism in medical practice lead to distancing and depersonalization. The established data show that the frequency of manifestation of the symptoms of depersonalization in more than 90% of the respondents is very small and episodic, in large time intervals.

10.2.3. Self-presentation

The category of professional presentation - self-presentation, as part of the burnout syndrome, is the result of strong emotional exhaustion and depersonalization and is characterized by negative self-evaluation and reduced work capacity. Multiple factors influence personal performance and its assessment by the nurse. A large part of them are from the professional-organizational work environment, the social position of nursing, the prestige of the profession, the motivation to work, fair pay, the results achieved by nursing work, the opportunities for career growth, a dignified place in society, fair treatment and respect the rights of everyone in the medical team.

There is a high rating for nurses' self-presentation. The frequency of the following signs is highest:

- Effective handling of patient care
- Easily overcome the barrier in communicating with patients
- Understanding patients' feelings with ease

Obviously, the self-esteem of medical professionals is high regarding their level of communication skills when dealing with sick people.

10.2.4. Conclusion

The results of the study among nurses show that more than half of them (51.6%) have an average and high degree of expression of the components of the burnout syndrome. There is a particularly big difference in the percentages of the high level of emotional exhaustion (34.9%) and compared to the data from other studies it is significant, above the indicated upper limit. This is due to the fact that as professional duties increase, the number of working nurses decreases and the average age of employed health professionals increases, professional intense stress increases, provoking the development of burnout syndrome. The low level of social status and high levels of stress have had their adverse effect on the psycho-emotional and physical condition of a large part of nursing in Bulgaria. All these factors are aggravated by uncertainty and constantly changing socioeconomic living conditions.

Professional burnout is not a direct result of exposure to prolonged stress at work, but is a much more complex phenomenon that also depends on the individual's ability to effectively deal with it. While stress is a temporary process of adaptation and is accompanied by physical and mental symptoms, burnout syndrome is a breakdown in adaptation and is a long-term process of mental erosion.

10.3. Relationships between demographics, stress level, and burnout syndrome components

The most affected by professional stress (with a high degree) are nurses from the 51 to 60-year-old group. With increasing age, a slight increase in the number of examinees with a high level of stress, despite the accumulated experience and routine in their professional activity, is noticed. To this should be added the family duties of the night shift nurse, permanent stress, and decreasing resources to deal with stress with increasing age.

The role of the family and children is very important for the Bulgarian working woman. In the family, she can find support to cope with the detrimental effect of professional stressors,

which is a comfort to the fragile psyche of women. On the other hand, maintaining harmony and stability in a family requires more time and peace. There is a higher percentage with a high level of stress in the family group - nearly 80% of the examined sisters.

In the group of family nurses, the high level of burnout syndrome was at a higher rate, while it was lower in non-family nurses. This is explained by the fact that employment and care in the family unit is difficult to combine with the tension, workload and disturbed biological rhythm of work in the wards.

The family is the smallest social structure that exerts a multidirectional influence on the mental stability of its members. Risk factors in the family environment increase due to a number of negative macro-social adversities. Especially important is the support that the working hospital nurse can find in the family to cope with disturbances in the emotional balance and to limit the development of professional burnout. However, the family should not be seen as an outlet for professional problems.

Personal financial status is a factor with a strong positive or negative influence on an individual's health. Depending on its direction of impact, it helps or hinders the adaptation capabilities of the organism (Karaslavova, 2007). The data show that with an increase in family income, the percentage of a high level of stress decreases, with the exception of the group with income between BGN 1,500 and BGN 2,000.

Prolonged as well as intense, short-term negative impact of risky occupational stressors lead to a state of distress. The characteristic pathological manifestations of stressful conditions are the sympathetic reactions: accelerated heart rate, increased arterial pressure, increased release of catecholamines and glucocorticosteroids from the adrenal glands. Constant stress affects the immune system and makes the body more susceptible to vascular diseases, infections, cancer and autoimmune diseases, etc.

A very important means of reducing stress levels is the emotional support in difficult moments of the medical team that the managers manage. It is easier to overcome problems with the participation of the team, with mutual respect and appreciation of the work done. The lack of support in stressful situations at work demotivates the management staff, but in turn, this result raises the question of why line nurses are not always willing to support their supervisors.

To overcome stress in the team, managers use different methods. Conversations and discussion of problems at work are the most frequently used and effective. The efforts to improve the organization of the work process, the creation of a schedule for the on-duty duties, which is consistent with the regular rest and leave, also have a beneficial effect. Collegiate training also brings nursing staff together and helps to build greater mutual trust and prevent professional tension.

Health professionals believe that a change in the work environment is needed to counteract the negative impact of stress, and it can be done. One direction is at the organizational level: improving the organization of work at the workplace, decent pay for the work done, improving working conditions. An increase in staff would reduce work overload and thus be a kind of prevention of workplace stress. The other direction is the person himself and his rights: respect and correctness in the medical team, fair distribution of duties, discussion of problems every week, organization of common events, increase of vacation days, strict observance of the job description.

The obtained results of research on the opinion of nurses in a managerial position show that:

- Head and senior nurses are aware of the impact of occupational stress on individual and organizational health
- They try to episodically apply some methods to limit stressogenic factors and improve the working psychoclimate
- They need a professional expert on problems related to the negative impact of stress
- Share the need to adopt and implement a strategy for the prevention of occupational stress in hospital nurses at the individual and organizational level

- Prevention and control of occupational stress should not be the problem of the individual or the department ("rescue individually", "the drowning man's problem"), but should be a priority of hospital management

11. PSYCHOLOGICAL INSURANCE OF MEDICAL STAFF

11.1. Principles and activities

The principles of psychological insurance are:
1. Teamwork and multidisciplinarity
2. Systematicity
3. Adherence to professional standards of good practice
4. Expediency, applicability and adequacy
5. Ability to continuously adapt (flexibility)

Determination of psychological suitability is carried out through:
1. Screening – is a short assessment procedure aimed at examining specific psychological parameters on a specific occasion
2. Diagnostics – is a study of individual and/or group mental resources and resilience for work in the army environment
3. Expert assessment - is a complex study of individual and/or group mental resources or an assessment of the psychosocial climate when performing various types of specific activities
4. Forecast - is a study of the dynamics and potential for development at the individual, group and organizational level

Activities to determine psychological fitness may be performed through one or more of the following procedures:
- Socio-demographic data
- Psychological exploration
- Psychological interview
- Psychological tests and/or questionnaires
- Observation
- Hardware research
- Case solving
- Group work
- Document analysis
- Focus groups, etc.

Psychological interventions

Psychological interventions are specialized activities that include:
1. Psychological and/or crisis counseling at the individual, group and organizational level, which are carried out according to the principles of conducting crisis interventions and anti-crisis work
2. Specialized crisis interventions - diffusion, demobilization and debriefing
3. Psychotherapy - individual and group
4. Psychological counseling

11.2. Psychological Insurance Analysis Report

The report with an analysis of the psychological provision of the medical staff should have the following parts:

1) Psychological research

1. Assessment of psychological fitness for work
2. Screening – individual and group level
3. Psychological diagnosis at the individual, group and organizational level
4. Forecast

2) Psychological interventions

1. Individual (Family)
2. At group level (department, department)
3. At the organizational level

3) Training in psychological skills

1. Learning objective
2. Methods used
3. Categories and total number of trainees
4. Thematic areas of study
5. Results analysis

4) Prevention of risky behavior

1. Registered suicide attempts and/or completed suicides
2. Registered medical professionals with alcohol use and/or drug abuse
3. Identified cases of behavioral disorders and occupational stress
4. Violations of disciplinary practice related to psychological problems
5. Psychological work on overcoming conflicts related to acceptance of differences (ethnic, religious, gender, etc.)
6. Summary analysis of cases, problems and trends
7. Interventions planned and carried out. Forecast

5) Summary

1. Trend analysis
2. Conclusions
3. Suggestions

12. PRINCIPLES FOR CARRYING OUT ANTI-CRISIS WORK AND CRISIS INTERVENTIONS

12.1. Principles

The principles for conducting anti-crisis work and crisis interventions include:
- Clarity – using simple and efficient methods
- Short-term - use of intensive and fast-acting methods
- Immediacy – intervention in a short period of time
- Close
- Plasticity and flexibility

- Adequacy of the approach to the situation

The main steps in the implementation of anti-crisis interventions are:
- Controlling the situation - rapid assessment and limiting of stressful impacts
- Minimizing the negative consequences of stress - providing the necessary help
- Mobilization of personal and group resources
- Develop immediate and long-term strategies/approaches to address the problem
- Anti-crisis intervention
- Restoration of individual and/or group functioning
- Interact with commanders to master and track
- Receiving immediate and delayed information about the achieved results

After carrying out the crisis intervention, the specialist, at his discretion, offers the head of the medical unit to refer the employee to the relevant specialized structures, bodies and units.

12.2. Specialized crisis interventions (diffusion, demobilization and debriefing)

Diffusion in place

On-site diffusion is an opportunity to ventilate initial experiences during a critical incident. When experiencing acute stress during critical incidents, cognitive, emotional and bodily responses occur in the healthcare worker.

The purpose of field diffusion is to help medical workers continue their work in the incident setting. Many can continue to perform their duties if they are able to overcome their symptoms.

Diffusion in place can be:
- Individual
- Group

Principles of Group Diffusion:
- It is carried out immediately after the event (3 to 4 hours maximum).
- It is recommended that the entire staff be present. In some cases, however, only the most severely affected are covered
- The duration is from 30 to 60 minutes.

Specialists conducting group diffusion observe the phases of group work.

Demobilization

Demobilization is an informational session that takes place after a critical incident, before the end of the medical staff shift. It is carried out in a group format, in an outpatient setting.

The main objectives are:
- To provide an opportunity for the medical staff for a short meeting
- To create prerequisites for providing mutual support in the transition to the usual conditions
- Medical workers should be informed about common stress reactions after working in a serious incident setting

The duration of the sessions should be about 15 minutes.

Psychological debriefing

Critical Incident Stress Debriefing is a structured psychological and educational group process designed to alleviate the impact of a critical incident and limit the possibility of developing PTSD. Debriefing takes place between 24 and 72 hours after the incident. There is no debriefing immediately after the event. The debriefing method is effective up to 12 weeks after the occurrence of the critical incident.

Before conducting the group work with medical personnel, the specialist should become familiar with the nature of the incident and the medical workers involved in it to determine who should be included in the debriefing. Planning for the debriefing can begin based on this information.

It is important to keep in mind that it is very likely that the information received at this time is inaccurate.

The debriefer should ensure that a room is provided where the group work will not be disturbed, as well as water/soft drinks etc.

12.3. Stages of debriefing

Debriefing has the following stages:

1) Orientation

The facilitator explains the debriefing process, its meaning and objectives to the participating medical personnel.

2) Questions

If the group has no idea what a debriefing is, participants are given an opportunity to ask questions. Continuity should be provided to the health workers' concerns about the nature of the procedure and their objections.

3) Rules

Ground rules apply to the group. The presenter directly seeks confirmation that the rules will be followed. These rules include:
1. Strict confidentiality. One can talk about one's own feelings and experiences later, but never about things someone said or heard during the debriefing
2. All participants are present until the end
3. This is not a criticism. No criticism of others
4. No dark humor
5. Except for the factual phase, no one should be forced to participate in the sharing. Attendees are encouraged to participate, assuming that what they share may be of benefit to others in alleviating their pain.
6. Do not interrupt the speaker
7. Everyone is asked to stay until the end of the session
8. Everyone needs to take responsibility for what they say. Participants need not say anything that could lead to incrimination or provide facts that should or may be used in subsequent investigations
9. In the room there is no distribution by positions (head of department, etc.) and functions (doctors, medical specialists in health care, etc.). All are equal
10. Only the medical workers directly or indirectly involved in the critical incident and the debriefing team are present in the room

11. Any other rules requested by the participants

4) Stage of the facts

Participants are invited to introduce themselves, indicate what role they had during the incident, what they said, heard, saw or felt. Through this process the group is introduced gradually and details of the event that may have been suppressed slowly resurface in all their vividness.

5) Reflection stage

Participants are invited to share what they were thinking during the incident.

6) Reactive stage

In this phase, participants are asked to discuss which part of the event was the most difficult for them or which worried them the most. If the event had emotionally significant content for them, it will become clear here. Participants should be reminded that they did their best and made the best possible decisions under the circumstances.

7) Stage of symptoms

As participants share their reactions, the facilitator encourages sharing of the individual experience through the language of symptoms: "Did anything unusual happen to you during the incident?" or "…when you got home?" or "…at your next actions?" In this way, the group described their own version of stress response syndrome, the signs and symptoms of acute stress.

8) Stage of training

The goal of the presenters in this stage is to normalize the reactions of the participants to the incident by means of the interventions of the previous two stages. It is important to allow sufficient time to carefully consider critical incident stress reactions. The facilitator should emphasize the fact that the responses the participants are experiencing are NORMAL responses to acute stress.

9) Re-entry phase

A variety of questions are usually left unasked, which the presenter will use to make connections where things are not yet clear. Here we talk about the future - family expectations, demands of the profession, future plans. Telephone numbers of support and follow-up services should be provided. This stage essentially serves as a psychological transition to normal life.

For the debriefing to be effective, sufficient time is needed for its conduct. Experience shows that this process can take from 2 to 6 hours depending on the type of group and the nature of the incident.

13 . RECOMMENDATIONS TO TEAM LEADERS OR MANAGERS OF HEALTHCARE FACILITIES AND HEALTHCARE WORKERS RELATED TO MENTAL HEALTH

It is useful to consider the following recommendations for **team leaders or managers of health facilities and health workers** involved in mental health, which have been developed by the WHO Division of Mental Health and Substance Use as messages aimed at different groups with the aim supporting mental and psychosocial well-being during the COVID-19 outbreak:

- **The heads of teams or managers of health facilities:**
  - **Ensuring that all staff are protected from ongoing stress and poor mental health during the current crisis period means that they will be able to perform their duties better.** You should not forget that the current situation will not be short-lived and you should focus on long-term professional capacity, not on periodic short-term reactions to the crisis.

  - **Ensure high quality communication and accurate and up-to-date information to all staff.** Rotate healthcare workers from high-stress roles to lower-stress roles and vice versa. Working in pairs helps provide support, monitor stress and reinforce safety procedures. Provide an opportunity for mobile teams to roam the area in pairs. Organize, encourage and monitor breaks at work. Implement flexible scheduling for workers who are directly affected or have a family member who is affected by a stressful event. Be sure to schedule time for colleagues to provide each other with social support.

  - **If you are a team leader or manager of a healthcare facility, facilitate access to mental health and psycho-social support services and ensure staff know where they can access such services.** Managers and team leaders are subject to the same stressors as all staff, but they are likely to experience additional stress due to their level of responsibility. It is important that the above services and strategies are provided for both staff and managers, and managers can set a personal example of what care they take to limit the impact of stress on themselves.

  - **Provide guidance to first responders** , including nurses, ambulance drivers, volunteers, case finders, teachers and community leaders, as well as those working in quarantine areas, on how to provide basic emotional and practical support to affected people by using psychological first aid.

  - **Manage mental health emergencies and neurological complaints** (eg, delirium, psychosis, severe anxiety or depression) within emergency or general wards. When time permits, appropriately trained and qualified professionals may need to be sent there, and the capacity of lay medical staff to support mental health and provide psycho-social support should be increased.

  - **Ensure availability of essential, generic psychotropic medications for all levels of the health care system.** People living with chronic mental illness or epileptic seizures will need continuous access to their medication and stopping it suddenly should be avoided.

- **Health workers**

  - Stress and the feelings associated with it do not in any way mean that you cannot complete your work or that you are weak. During this period, maintaining your mental health and psycho-social well-being is just as important as taking care of your physical health.

  - Take care of yourself in this situation. Try and implement helpful coping strategies, such as getting enough rest at work or between shifts, eating plenty of healthy food, staying physically active and staying in touch with family and

friends. Avoid coping strategies that don't help, such as smoking, alcohol, or other intoxicants. In the long run, they can worsen your mental and physical health. The current situation is unique and unprecedented for many health workers, especially if they have not been involved in measures related to similar crises. Even if this is the case, strategies that have helped you cope with stressful times in the past may be helpful in your current situation. You most likely know how to relieve stress and should not hesitate to maintain your psychological resilience. It's not a sprint, it's a marathon.

- Some health workers may feel they are shunned by their family or community because of stigma or fear. This can make an already complicated situation far more difficult. If possible, staying in touch with loved ones, including through digital methods, is one way to maintain contact. Reach out to your coworkers, your supervisor, or other people you trust for social support—your coworkers may be experiencing the same thing.

- Use accessible ways to convey information to people with intellectual, cognitive and psycho-social disabilities. If you are a team leader or manager of a healthcare facility, you need to use ways of communication that are not based solely on written information.

- You need to know how to support people who are affected by COVID-19 and how to direct them to available resources. This is particularly important for those who need mental health and psycho-social support. The stigma associated with mental health issues can lead to reluctance to seek help for both COVID-19 and mental health conditions. Developed within the framework of the WHO program to fill the gaps in the field of mental health

14. MODEL OF STRATEGIC GUIDELINES FOR THE PREVENTION AND CONTROL OF OCCUPATIONAL STRESS/BURNOUT SYNDROME

The model aims to determine the main strategic guidelines for the implementation of preventive measures to control permanent stress at the following levels:
- Intra-institutional (general hospital and intra-sectoral organizational level)
- External institutional
- Individual level

The activities are aimed at prevention and modification of occupational stressogens, increasing social support, personal stress resistance and adaptability. Preventive measures should be carried out comprehensively under the leadership and with the participation of the health managers of the hospital (director, head of department, chief and senior nurse), with the active assistance and involvement of specialists and experts on the problem (psychologist, specialist in occupational medicine, physiotherapist, kinesitherapist, rehabilitator, occupational therapist).

14.1. Intra-institutional (general hospital and intra-sectoral organizational) level

A favorable work environment can be achieved through better control of the medical process and the results of medical care. Stress will be reduced by applying good practices and behavioral models of high-tech advances in medicine. Controlling and managing aggression and violence in the team and by users of medical care will lead to a sense of security and minimize stress. Increasing the level of autonomy in the work of nursing staff will increase their self-esteem

and self-confidence, as well as satisfaction with care. Management staff must take responsibility for increasing the internal and external motivation of health personnel. It is essential to create effective and efficient communication management at the internal and external institutional level, with a view to improving mutual trust between health professionals, health managers and society.

Expedient selection of human resources in medical facilities . Before starting work in a medical institution, the psychological type of each candidate, internal motivation, acquired knowledge and skills should be checked in accordance with the requested position in the specific department.

Ergonomic working environment . Ergonomics, as a science of the human factor and the work activity of a person, determines the ways of designing the work process, the organization of the workplace and their adaptation to the capabilities of the person. The application of ergonomics in the occupational medical environment will positively influence organ and system changes in healthcare professionals. These include the limited action of motor-visceral reflexes, significant neuro-sensory and neuropsychic tension, forced hypokinesia - predictors of occupational stress.

Rational conditions of work and rest . Creating an optimal regime of work and rest during the overwork and shift schedule of the medical staff is an important measure for the prevention of mental and physical fatigue and overwork. Overtiredness significantly potentiates some pathological processes in the body such as headache, distraction, irritability, impaired concentration, attention and sleep. Several scheduled breaks throughout the workday should be used, as well as longer vacations several times a year.

Postgraduate studies . Continuous training is a necessary condition for increasing the level of adaptation to informational stress by preparing to meet modern medical technologies and improving communication skills. Moral and financial support from the hospital management is needed in this direction, as well as material incentive for postgraduate training and qualification. To reduce and master the elements of the burnout syndrome, the training of the risk groups of health professionals in the ability of early detection and management of the syndrome helps.

Social benefits and support can contribute to the integration of medical staff into the organizational environment, acceptance and increased responsibility towards the hospital institution. They are related to the financial resources of the hospital, but any good manager could find ways to provide social assistance and support to his employees. Team-building is a very suitable form of team work, providing an opportunity to get to know the members, improve communication skills, cooperation and mutual assistance in the team. Participation in Balintov groups will provide an opportunity to share professional problems, discuss and resolve conflicts and get out of stressful situations related to the tense emotional daily life with patients. In this direction, regular trainings in the hospital teams concerning problems of the working environment and work realization are very useful.

Balint groups

Balint's groups aim at preparing health workers to perceive the patient and his illness as a whole, avoiding the division between the "scientific" approach, in which the emphasis is entirely on the illness, on the one hand, and the psychological understanding of the patient, on the other. Often, emotional factors and patient responses are viewed as artifacts that interfere with the practice of somatic medicine. Focusing only on the "organic" symptom and looking for a narrow biological explanation is an approach that turns out to be inappropriate for a very significant proportion of the cases that the general practitioner sees in his daily practice. In these cases, it is the patient's emotional experience that can help to understand his complaints and the way he views them.

The idea was developed in 1945 by Michael Balint (1896 – 1970), a Hungarian psychoanalyst and proponent of the object relations school, and his wife Enid Balint (1903 – 1994). Balint is convinced that in order to be complete, the doctor must be able to feel sufficiently

at home both in the field of somatic diseases and in understanding the emotional functioning of the patient. Therefore, he proposes an approach that seeks to make doctors more sensitive to the psychological factors that determine the patient's illness and which at the same time participate in the construction of the relationship between the doctor and the patient. This approach is based on the psychoanalytic understanding of counter-transference.

Balint groups are usually between 8 and 12 people, meet regularly (most often once every 2 weeks), with sessions lasting 1.5 – 2 hours. In each session, there is usually time for two of the doctors to present a relatively short case with which they have a particular difficulty, question or puzzling experience. The leader's task is to use the group process in clarifying the emotional situation associated with the case being presented.

The group discusses "diagnostic" issues at three levels:

(1) Symptoms, investigations, classic diagnosis and treatment

(2) The patient's emotional needs and behavior

(3) The patient's attitudes and reactions to his illness, his environment, and especially to the physician, as well as the latter's reactions to the patient

14.2. External institutional level

Political support at a high management level can influence the social status of medical professionals by creating and controlling the implementation of regulations and laws regarding medical education, qualifications and professional careers. A successful health policy implemented according to European and global standards and good practices will contribute to the effective management of health activities, services, care and human resources.

Legal protection . The normative basis of the rights and obligations of doctors and nurses, as well as medical standards for good medical practice in hospital settings, are absolutely necessary to achieve a sense of security, order and protection in the risky profession.

Media support includes the role of information media in increasing the credibility and recognition of the importance of the activities of medical professionals. Involving, for example, nursing representatives in patient NGOs and volunteer appearances will help increase trust and empathy, better understanding of patient needs, and mutual cooperation to achieve better health. The organization and participation in seminars and conferences will contribute to media appearance and popularization of the achievements and successes of nurses in their noble mission, scientific and public activity.

Figure 6. Model of strategic guidelines for the prevention and control of occupational stress/burnout in medical professionals
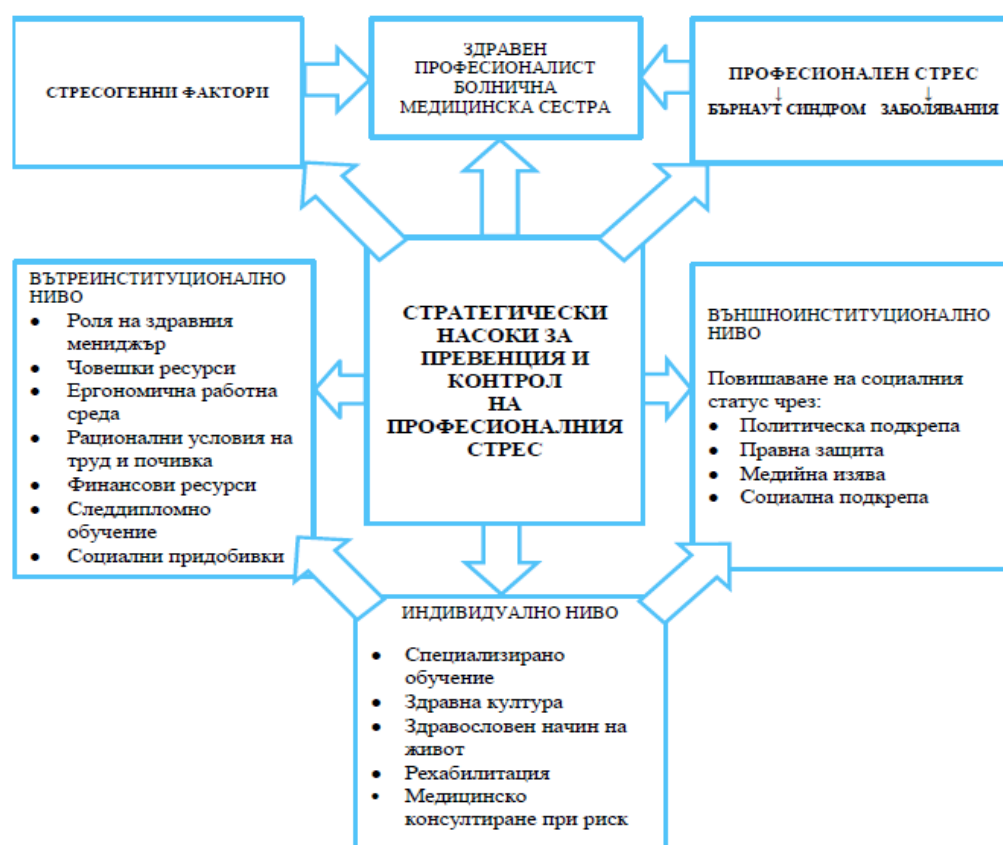
Source: Georgieva, Z. Status and strategic guidelines for the prevention of occupational stress in hospital nurses. 2018, Medical University - Varna

14.3. Individual level

Specialized training and retraining of medical professionals to detect and defend stressogens, study the symptoms of stress, distress and burnout syndrome, as well as appropriate relaxation techniques and self-training will help to reduce emotional tension and prevent psychosomatic diseases. The development of communication skills is an absolute necessity when seeking and realizing efficient and useful relationships in organizations, groups and families. Mastering the methods of assertive communication - active listening, developing self-confidence, speaking honestly and directly, skill in discussion, will facilitate the choice of a coping strategy - emotionally focused or problem focused (Folkman 1988).

Constant activities for the improvement of qualification and professional improvement will contribute to a full expression and self-respect in nursing work and an increase in professional self-esteem.

Health culture of the person includes the components of health awareness, positive emotional experiences related to health protection, one's own and that of others, as well as positive health behavior (G. Terzieva 2010).

Development of emotional intelligence - the ability to perceive, evaluate and manage one's own emotions, the ability to name them and determine them in the right direction, will contribute to strengthening professional adaptability and active-cognitive orientation when solving problems and making optimal decisions.

Self-motivation, self-control and self-improvement would help the health professional in achieving stress resistance and a balance between the demands of the work environment and individual capabilities. The formation of audacity and courage in accepting challenges, self-

confidence, self-esteem, emotional commitment in work improve adaptability and resistance to the influence of professional factors (M. Stoicheva, 2000).

A healthy lifestyle is an integral part of stress management. Many medical professionals know and promote but do not follow the rules of a healthy lifestyle. A controlled and well-balanced diet will prevent the accumulation of fatigue and increase the body's adaptive abilities. Physical activity is of great importance in reducing emotional stress, anxiety and restlessness. Sports should be enjoyable, chosen individually and dosed optimally. Daily physical activity will help counteract chronic stress and increase the body's resistance. Maintaining mental health implies emotional balance, the ability to self-control - a sign of emotional and social maturity, the ability to quickly adapt to difficult situations and a factor in regulating behavior in extreme situations.

Rehabilitation interventions . Psychoprophylactic methods such as autogenic training, debriefing, breathing relaxation will reduce neuropsychological tension. The use of special rooms for rest, meals and relaxation outside of work will alleviate the symptoms of stress. Regularly maintaining a good physical condition through moderately intense sports will increase the health professional's resistance to stress and tone. By using stimulating activities and relaxing activities (yoga, self-training, aromatherapy, music, walks, massage, dancing, practicing a hobby) the mood improves, the levels of endorphins increase, which generate personal satisfaction, the feeling of happiness and well-being. The rational utilization of free time, the balanced combination of work and rest contribute to prevention of stress and improvement of health.

Medical counseling in crisis situations . When diagnosing a high degree of manifestation of the determinants of burnout syndrome, there is a real danger of the appearance of mental and somatic symptoms and diseases. Medical professionals who know the characteristic signs of the consequences of distress and burnout should seek and receive appropriate medical help from the hospital psychologist or psychiatrist. Timely intervention and medical help will prevent extreme depressive states and diseases of psychosomatic origin.

15 . CONCLUSION

In conclusion, both current and future medical personnel must be protected from burnout in such unprecedented situations through various measures at the governmental, organizational, and individual levels. The government, through the Ministry of Health, should develop policies to ensure the mental well-being of medical personnel during a pandemic.

At the organizational level, providing appropriate training and personal protective equipment, as well as recognizing the efforts of nursing staff, will improve both motivation and psychological outcomes among healthcare professionals. Clear and frequent communication is key to quickly identifying their needs related to the pandemic and providing up-to-date information to reduce their anxiety due to the uncertainty of the situation. In order to identify signs of psychological distress as early as possible, campaigns to reduce the stigma against psychological problems in the workplace and a peer support system can be implemented.

A telephone hotline enabling contact with psychologists or the presence of a psychologist in the hospital should be resources made available to medical professionals to deal with their individual problems and to obtain adequate psychological support immediately. At the individual level, mindfulness-based interventions have been shown to be effective in reducing stress among healthcare workers by allowing them to objectify their emotions and negative thoughts.

Talking to family members on the phone is considered by frontline workers to be a very important coping mechanism for stress. Psychological support, especially for medical students, although often underestimated, should be emphasized. The protection of such students is of great importance to society, since the primary goal of medical education is the sustainable promotion of health in any community.

Members of the public rely on health care personnel for their physical and mental well-being. Conversely, medical professionals are also supported by society. Therefore, medical

professionals, medical students and the public must come together to ensure each other's mental safety so that difficulties can be jointly overcome in the event of a new pandemic in the future with the scope and severity of the COVID- 19 in order to ensure a stable health system.

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