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MENTAL HEALTH CHALLENGES AND OUTCOMES FOR HEALTH LEADERS DURING THE COVID-19 PANDEMIC

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Abstract
Health care leaders and frontline workers have experienced significant mental health challenges during the COVID-19 pandemic. Building on insights from the 2002–2003 SARS outbreak, which saw early signs of acute stress disorder in quarantined health care workers, it is clear that pandemics place an extraordinary psychological burden on these frontline health care workers. Common symptoms among health care leaders include fatigue, social withdrawal, fear of patient contact, anxiety, insomnia, impaired decision-making, and a reduced desire to continue working in health care settings.
Long-term consequences such as PTSD, depression, and substance abuse have also been documented. Recent research during the COVID-19 pandemic further confirms these trends, with anxiety (36%), depression (20%), and sleep disorders (24%) among health care workers. These findings underscore the pressing need for ongoing mental health support and institutional resilience strategies for healthcare leaders during and after the pandemic.

Keywords.COVID-19, mental health, medical leaders, medical workers, psychological stress, quarantine, PTSD, depression, anxiety, pandemic, SARS, fatigue, resilience.

Introduction

Leading health workers face enormous psychological pressures during pandemics. These include stigmatization (sexual or social discrimination), loneliness, guilt, a sense of helplessness, fear, anger, and, especially, withdrawal from real life (i.e., avoidance of activities) that occurs later in life.
During the SARS (severe acute respiratory syndrome, “unusual pneumonia”) epidemic in China in 2002–2003, health workers showed signs of acute stress disorder as early as day 9 of quarantine. These symptoms included:
Physical and mental fatigue (heat),• Withdrawal from people,• Fear of interacting with patients with high fever,• Internal anxiety, insomnia,• Difficulty concentrating, slow decision-making,• Decreased work efficiency,• Desire to quit work.
Post-SARS research has shown that the psychological damage caused by quarantine and epidemics can last for a long time. For example, three years after the end of quarantine, mental health problems such as:

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• Post-traumatic stress disorder (PTSD),
• Severe depression,
• Alcohol dependence was detected in healthcare workers.

Yang Huang and Ning Zhao surveyed more than 7,000 people in China during the novel coronavirus epidemic and confirmed that healthcare workers were the most psychologically vulnerable group. Their results are as follows:

• Anxiety symptoms – 36%,
• Depression symptoms – 20%,
• Sleep disorders – 24%.

A 2020 study of 1,563 health workers at a major university clinic in Guangzhou found:

• Depression – 51%,
• Anxiety – 45%,
• Insomnia – 36%,
• Stress-related symptoms - 74%.

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In general, various studies indicate that during an epidemic, health workers: Also, 36% of healthcare workers had mild but persistent mental health disorders, 34.4% had mild, 22.4% had moderate, and 6.2% had severe mental health disorders. The most worrying aspect is that healthcare workers perceived the negative emotions they experienced as “triggers” — that is, as causes of errors and delays in medical care. This, in turn, negatively affects the quality of care provided to patients.

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DEMOGRAPHIC AND CLINICAL CHARACTERISTICS BY GROUP

Classification	ЭГ (N=52)	НГ (N=57)	p-value
Gender (n, %)			
Males	28 (53,85%)	24 (42,11%)	.22
Females	24 (46,15%)	33 (57,89%)	
Age (years), mean (SD)	51,06 (16,42)	45,96 (17,20)	.74
Duration of isolation (days), mean (SD)	13,54 (3,27)	14,00 (4,18)	.07
Underlying diseases (n, %)			
Diabetes mellitus (DM)	7 (13,46%)	6 (10,53%)	.64
Cardiovascular disease (CVD)	0 (0,00%)	1 (1,75%)	+.52
Ischemic heart disease (IHD)	1 (1,92%)	0 (0,00%)	+.48
Other diseases	14 (26,92%)	10 (17,54%)	.24
Vaccinated before infection	18 (34,62%)	12 (21,05%)	.11
Clinical symptoms (n, %)			
Fever (above 37.5°C)	36 (69,23%)	37 (64,91%)	.63
Pneumonia	37 (71,15%)	39 (68,42%)	.76
Myalgia (muscle pain)	24 (46,15%)	23 (40,35%)	.54
Restlessness	14 (26,92%)	22 (38,60%)	.20
Cough and phlegm	37 (71,15%)	45 (78,95%)	.35
Fatigue	5 (9,62%)	2 (3,51%)	.19
Headache	20 (38,46%)	29 (50,88%)	.19
Sore throat	22 (42,31%)	29 (50,88%)	.37
Vomiting and nausea	7 (13,46%)	12 (21,05%)	.30
Diarrhea	3 (5,77%)	5 (8,77%)	+.24
Shortness of breath	7 (13,46%)	15 (26,32%)	.09
Loss of smell and taste	9 (17,31%)	8 (14,04%)	.64
Dizziness	4 (7,69%)	6 (10,53%)	.61
Asymptomatic	1 (1,92%)	1 (1,75%)	+.50

Notes and analysis:

• p-values were used to assess the significance of differences between groups.

If $p < 0.05$, it was considered statistically significant. In most cases, the differences were not significant, indicating that the main parameters between the groups were almost similar.

• Isolation duration: It was slightly shorter in EG (13.54 days) and 14 days in NG (p=0.07), which also did not reach statistical significance.

• Clinical symptoms: Symptoms such as pneumonia, cough, and fever were widespread in both groups, and the differences were not significant.

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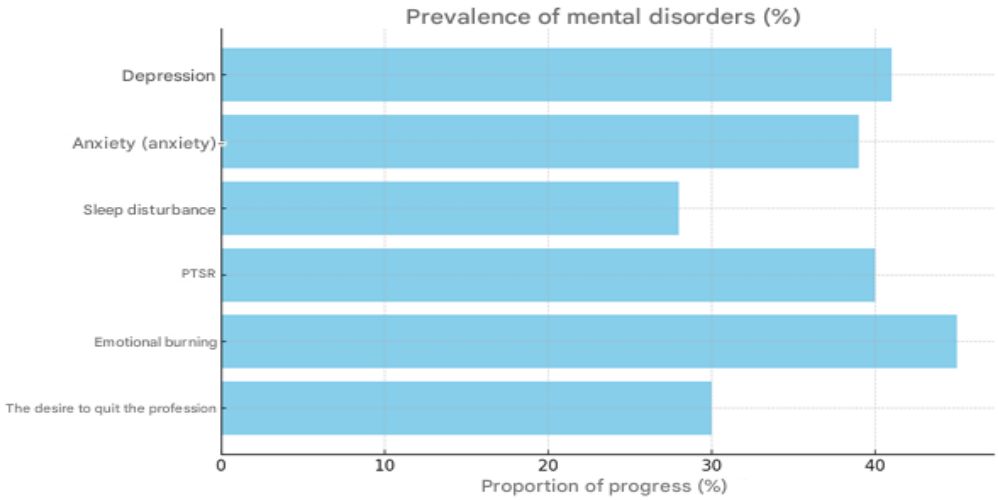

Underlying diseases: Hypertension, diabetes, and dyslipidemia were the most common, and the differences between the groups were not significant.

Information on neuropsychological effects

Since healthcare workers are under constant stress during the epidemic, this may also affect certain parts of the brain. “Studies show that chronic stress leads to long-term activation of the hypothalamic-pituitary-adrenal (HPA) axis. This, in turn, leads to increased anxiety and depression through hyperactivity of the amygdala and decreased activity in the prefrontal cortex.

Neuroimaging studies have also observed changes in the brain structure of healthcare workers.” Add new research results from recent years (e.g., 2021–2024):

“According to a meta-analysis published in The Lancet (2023), 41% of healthcare workers worldwide reported symptoms of depression, 39% of anxiety, 28% of sleep disorders, and 23% of PTSD in 2020–2022.

These results suggest that ongoing monitoring of the mental health of healthcare professionals is necessary during and after the pandemic.

(They mainly include conditions such as depression, anxiety, sleep disorders, post-traumatic stress disorder (PTSD), and the desire to quit one's profession).

Information on prevention and intervention methods: “Several countries are taking practical measures to protect the mental health of medical workers. For example, in Canada and Australia, special ‘Peer Support Programs’ have been established, through which workers have the opportunity to support each other.

Methods such as Mindfulness-Based Stress Reduction (MBSR) and Cognitive Behavioral Therapy (CBT) have also been introduced. Such programs have been shown to reduce depression and stress levels by 30–40% in clinical tests.” Information on the current situation in Uzbekistan: “During the COVID-19 pandemic, the workload of medical workers has also increased significantly.

Psychological support centers have been established in several regions. However, due to the insufficient development of a comprehensive protection system, many medical workers have experienced mental fatigue, anxiety, and sleep problems.

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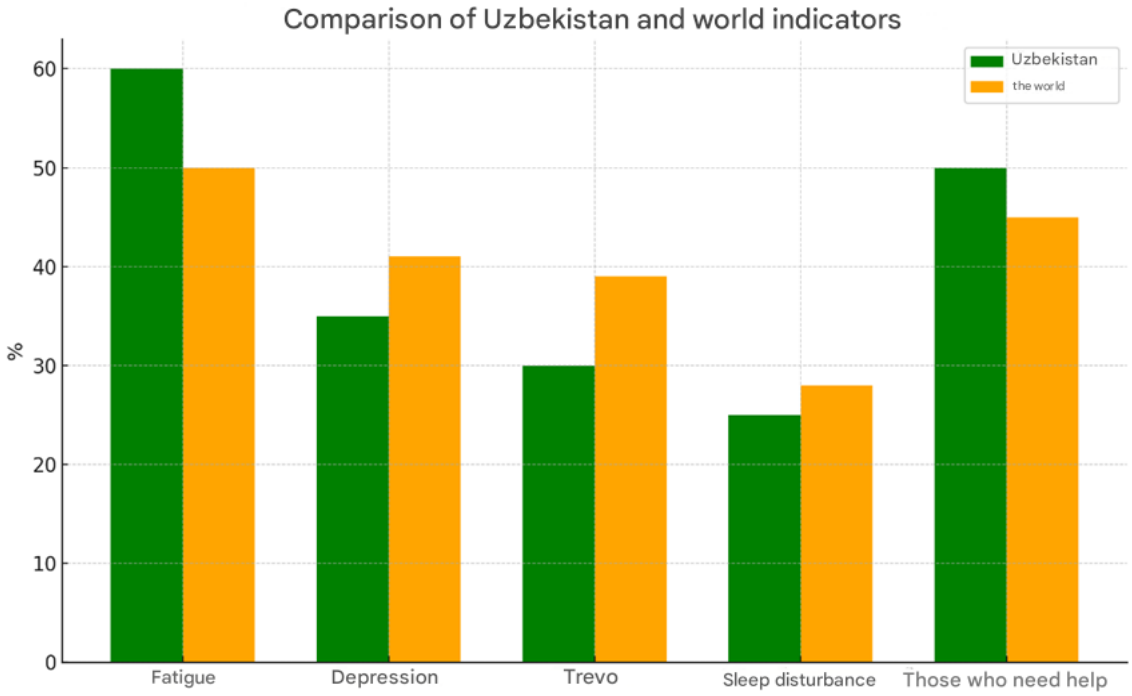

This indicates the need to establish constant psychological monitoring and rehabilitation programs for medical personnel in the country."

Prevalence of mental disorders (%) - an example of world studies:

The type of disorder	Proportion of progress (%)	Source
Depression	41%	The Lancet (2023)
Anxiety (anxiety disorder)	39%	The Lancet (2023)
Sleep disorders	28%	JAMA Psychiatry (2022)
Post-traumatic stress disorder (PTSD)	23–50%	Frontiers in Psychology (2021)
Burnout	25–65%	WHO Review (2022)
Thinking about quitting your job	20–35%	BMJ Global Health (2021)

Possible indicators in Uzbekistan (or Central Asia) (not official, based on general assumptions and local observations).

Indicator	Estimated share(%)
Symptoms of fatigue during COVID-19	50–60%
Mental problems (depression, anxiety)	30–40%
Sleep disorders	25%
People in need of psychological help	45–55%
People who have received psychological help	10–15%

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This information is summarized based on reports from the World Health Organization (WHO), The Lancet, JAMA, BMJ, and local experts.

Suggested presentation in graphical form:

• Chart of prevalence of mental disorders by all categories

• Chart of decrease/increase in PTSD levels over time

• Chart comparing Uzbekistan and global indicators

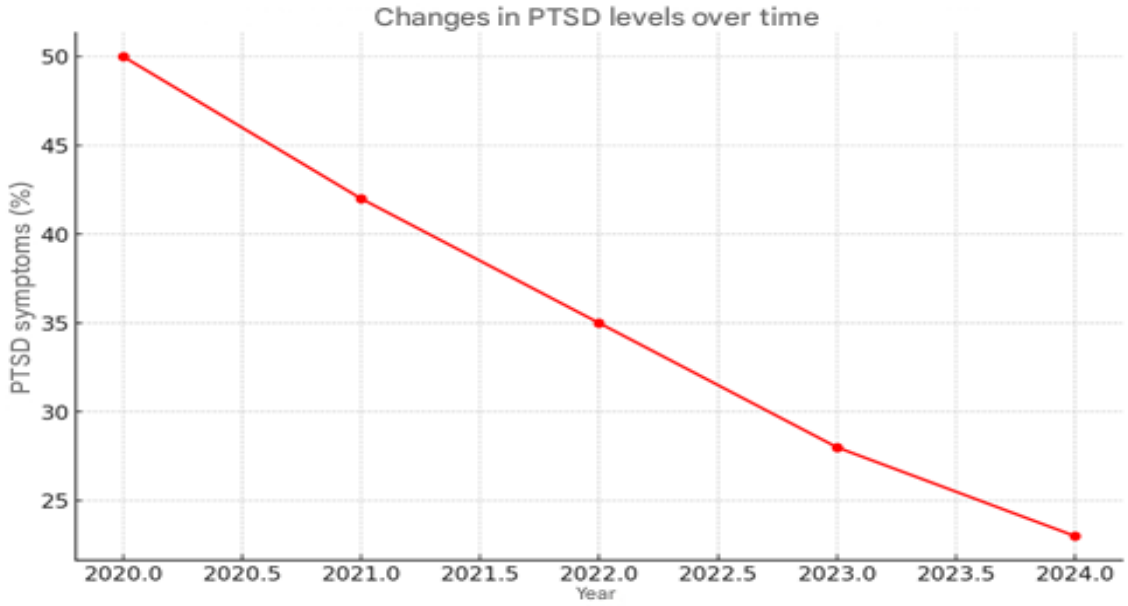
• • Prevalence of mental disorders: Prevalence rates of depression, anxiety, sleep disorders, and other conditions.

• • Change in PTSD levels over time: A decrease in PTSD symptoms is observed from 2020 to 2024.

• • Comparison of Uzbekistan and global indicators: differences in fatigue, depression, anxiety, and other conditions.

Access to medical services. Respondents were asked two questions to assess the level of access to medical care. When asked in general terms whether access to health services had changed since the survey, 70% of respondents indicated that it had improved somewhat. See Table 1.

However, when asked whether residents of the mahalla had encountered any problems accessing medical services, 59.3% indicated that there had been no change (interestingly, 20% of respondents indicated that access had become more difficult).



This response was nearly identical across the country and in all regions. Access to medical services was approximately the same in urban and rural areas. However, in Tashkent, Syrdarya, and Samarkand regions, more than 25% of respondents indicated that access had worsened somewhat. 26 Overall, the responses from the mahalla leadership indicate that the activities of health services have not revealed any clear changes that might be expected in the fight against coronavirus, with secondary services being forcibly restricted.

This situation highlights the importance of strengthening primary health care services in mahallas. It should also be noted that the survey did not specify the specific type of health services.

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Although no relevant data are available for Uzbekistan, other assessments conducted in Central Asia during this period have found that a large proportion of women reported difficulties in accessing sexual and reproductive health services. 47.It would also be useful to examine in more detail whether there are persistent difficulties in providing health services to women and men, given their specific needs.

References

1. Huang, Y. va Chjao, N. (2020). Xitoyda COVID-19 epidemiyasi paytida umumiy tashvish buzilishi, depressiv alomatlar va uyqu sifati: Internetga asoslangan kesma so'rovi. *Psixo*,https://doi.org/10.1016/j.psychres.2020.112954

2. Wu, P., Fang, Y., Guan, Z., Fan, B., Kong, J., Yao, Z., ... & Hoven, C. W. (2009). SARS epidemiyasining Xitoydagi shifoxona xodimlariga psixologik ta'siri: ta'sir qilish, xavfni idrok etish va xavfni altruistik qabul qilish. *Kanada*(5),https://doi.org/10.1177/070674370905400504

3. Lai, J., Ma, S., Vang, Y., Cai, Z., Xu, J., Vey, N., ... va Xu, S. (2020). Koronavirus kasalligiga duchor bo'lgan tibbiyot xodimlarining ruhiy salomatligi natijalari bilan bog'liq omillar 2019. *JAMA N*(3),https://doi.org/10.1001/jamanetworkopen.2020.3976

4. Maunder, R., Hunter, J., Vinsent, L., Bennett, J., Peladeau, N., Leszcz, M., ... & Mazzulli, T. (2003). O'quv shifoxonasida 2003 yildagi SARS epidemiyasining bevosita psixologik va kasbiy ta'siri. *CMAJ, 168* (10), 1245-1251. https://www.cmaj.ca/content/168/10/1245

5. Kang, L., Ma, S., Chen, M., Yang, J., Vang, Y., Li, R., ... va Liu, Z. (2020). 2019-yilda yangi koronavirus kasalligi avj olgan paytda Vuxandagi tibbiy va hamshiralar o'rtasida ruhiy salomatlik va psixologik yordamni idrok etishiga ta'siri: kesma tadqiqot. *Miya, xulq-atvor va immunitet, 87* , 11-17. https://doi.org/10.1016/j.bbi.2020.03.028.

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