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RESEARCH ARTICLE

# The Impact of Emotional Burnout on the Somatic Health of Healthcare Workers

**Murad Arsenovich Elderov[1], Kamil Sailaubayevich Satayev[2], Ibragimovich Makhmudov Arslanbek[3], Denis Alievich Sataev[4], Maxim Sergeevich Shashkov[5], Bariyat Ruslanovna Vitaeva[6] and Anzhili Nurulaevna Supiyanova[7]**

[1]Astrakhan State Medical University, 121 Bakinskaya Street
[2]Astrakhan State Medical University, 121 Bakinskaya Street
3Astrakhan State Medical University, 121 Bakinskaya Street
[4]Astrakhan State Medical University, 121 Bakinskaya Street
[5]Astrakhan State Medical University, 121 Bakinskaya Street
[6]Astrakhan State Medical University, 121 Bakinskaya Street
[7]Astrakhan State Medical University, 121 Bakinskaya Street

*Corresponding Author
Murad Arsenovich Elderov
(elderov.m@yandex.ru)

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Abstract: Emotional burnout is a persistent syndrome that develops in healthcare professionals under the influence of prolonged psycho-emotional stress, accompanied by a loss of motivation, depletion of the body's resources, and a decrease in the effectiveness of professional activities. In today's healthcare system, characterized by high workload, staff shortages, and an increasing number of stressors, the issue of burnout has become a systemic problem. One of the least studied but extremely significant consequences of emotional burnout is the deterioration of medical professionals' physical health. The purpose of this study is to determine the degree of influence of burnout syndrome on the indicators of somatic condition of medical workers of various profiles and to identify the relationships between the psychological and physiological components of the professional destructive process. Based on the analysis of questionnaire data, the results of standardized questionnaires, as well as the study of outpatient records of personnel, key risk groups were identified and typical patterns of psychosomatic disorders were described. Special attention is paid to comparative analysis between different categories of personnel, and the assessment of the role of seniority, workload intensity, and organizational working conditions in the formation of burnout. The relevance of this work is due not only to the growing number of cases of temporary disability and deteriorating health among medical workers, but also to the fact that a decrease in their psychophysiological resources directly affects the quality and safety of medical care. The results presented in this study can be used in the development of burnout prevention programs, the creation of an internal organizational psychological support system, and medical monitoring of personnel.

Keywords: emotional burnout, somatic health, medical professionals, occupational stress, and psychosomatic disorders.

## INTRODUCTION

The modern healthcare system is in a state of constant transformation, which is accompanied by an increasing workload for medical personnel. The increased volume of responsibilities, regulatory overregulation, staff shortages, the complexity of working with patients, and the high moral requirements for the profession create an environment that is full of stressors. In the context of professional pressure, the key risk is the development of burnout syndrome, which is no longer seen as a specific case of psychological exhaustion, but rather as a systemic problem affecting a significant portion of the medical community.

Emotional burnout is a destructive condition that occurs in response to prolonged exposure to professional stress. It includes a set of symptoms, such as emotional exhaustion, depersonalization, decreased job satisfaction, and a sense of detachment from one's work. Although this syndrome was initially considered solely in terms of its emotional manifestations, recent decades have seen an increasing body of evidence in the scientific literature regarding its direct and indirect impact on physical health. For healthcare professionals who are in constant interpersonal contact with patients, a high level of responsibility and stress can lead not only to psychological disorders, but also to a persistent psychosomatic imbalance.

Somatic manifestations of emotional burnout are often disguised as functional disorders: tension headaches, gastrointestinal symptoms, arterial hypertension, sleep disorders, chronic fatigue, and decreased immune resistance. In some cases, there are exacerbations of chronic diseases, worsening of already diagnosed pathologies, and an increase in temporary disability rates, which directly affects the staff stability and efficiency of medical organizations. Despite the significant interest of researchers in the problem of burnout, the mechanism of this syndrome's impact on the physical health of healthcare workers remains insufficiently studied, especially in the domestic scientific tradition. This issue requires a comprehensive analysis that combines psychometric and clinical diagnostics, which can serve as a basis for developing

prevention and health improvement systems for medical personnel [8].

It should be noted that to date, the Russian Federation does not have a legally established program for diagnosing and correcting burnout in medical institutions. Meanwhile, research conducted in Western European and North American countries indicates the effectiveness of systemic prevention at both the organizational level (optimized schedules, supportive practices, and stress management) and the individual level (psychological relief, coaching, and supervision). The transfer of such practices to Russian realities requires an empirical justification adapted to the specific conditions of the Russian healthcare system [7].

The relevance of studying the impact of emotional burnout on the somatic health of medical professionals is due to the need to revise approaches to occupational safety in the medical field, which focus not only on physical safety but also on the psychophysiological well-being of personnel. Recognizing the somatic consequences of burnout as a significant component of general pathology opens up opportunities for interdisciplinary solutions aimed at maintaining the performance and prolonging the professional longevity of medical professionals [2]. This is especially important in the context of the growing burden on the healthcare system caused by demographic changes, the increase in chronic diseases in the population, and the epidemiological crises of recent years [4].

The study aims at filling the gap in the domestic scientific literature and provides a basis for implementing tools to protect the psychosomatic health of healthcare workers as a priority area of public policy in the field of medicine.

## MATERIALS AND METHODS OF RESEARCH

This study was conducted at two multidisciplinary medical institutions and involved 164 respondents, including doctors of various specialties, nurses, paramedics, and support staff. The level of emotional burnout was assessed using the Maslach Burnout Inventory (MBI), which was adapted for the Russian sample. Both subjective questionnaire scales (in particular, the Goldberg questionnaire-based scale for assessing psychosomatic manifestations) and medical record analysis, including data on the frequency of visits, diagnoses, and sick leave, were used as tools for assessing somatic health.

Descriptive statistics, Pearson's correlation coefficient, and multiple regression analysis were used to identify the relationship between the severity of emotional burnout symptoms and somatic disorders. To ensure the reliability of the results, the principle of anonymity was followed, and participation in the study was based on voluntary informed consent.

## THE RESULTS OF THE STUDY AND THEIR DISCUSSION

The problem of emotional burnout among medical professionals is increasingly becoming the subject of interdisciplinary analysis that combines clinical psychology, psychophysiology, and occupational medicine. In the context of chronic stress, staff shortages, high workloads, and social responsibilities, the psycho-emotional resources of medical professionals are being depleted. The development of burnout triggers a cascade of reactions, including significant somatic manifestations, both in terms of complaints and objective medical indicators.

The analysis of the study, which included 164 medical professionals from two multidisciplinary institutions, revealed a stable correlation between the severity of burnout and the frequency of visits related to somatic problems. Respondents with high levels of emotional exhaustion were diagnosed with multiple somatic symptoms, which may not always have an organic cause but can significantly impact the overall functioning of the body.

| Burnout level | Headache (%) | Gastrointestinal disorders (%) | High blood pressure (%) | Sleep disorders (%) |
|---|---|---|---|---|
| Low | 21 | 17 | 19 | 23 |
| Medium | 44 | 39 | 48 | 51 |
| High | 69 | 61 | 72 | 78 |

The highest concentration of complaints was observed in the group with pronounced burnout: almost 70% of respondents regularly experienced headaches, 72% were diagnosed with high blood pressure, and sleep disorders were observed in 78% of the respondents. It is noteworthy that individuals with low levels of burnout have significantly lower rates of somatic complaints, highlighting the dependence of the functional state of the body on the psycho-emotional component.

**The dynamics of symptom prevalence are visualized in Figure 1.**

There is a clear trend of an increasing proportion of respondents suffering as burnout intensifies.

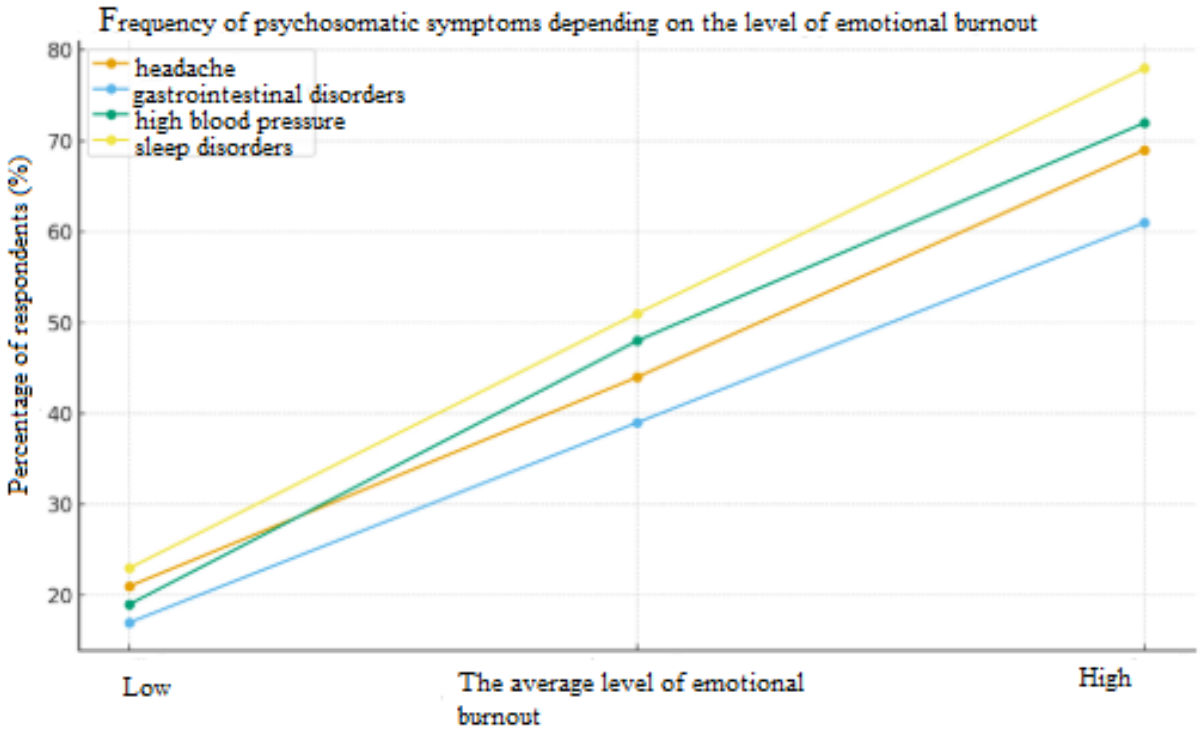


**Figure 1. The frequency of psychosomatic symptoms depending on the level of emotional burnout**

The data obtained are confirmed by the results of regression analysis. It was found that the level of emotional burnout is positively correlated with the frequency of visits to the clinic ($r = 0.62$, $p < 0.01$) and the number of days of temporary disability ($r = 0.54$, $p < 0.01$). Table 2 demonstrates differentiated data by medical staff categories.

**Table 2. Relationship between burnout indicators and medical treatment**

| Group of employees | The average score on the MBTI scale | Visits to the polyclinic (per year) | Disability Days of the year |
|---|---|---|---|
| Doctors | 38,5 | 9,3 | 12,7 |
| Nurses | 41,8 | 11,5 | 16,1 |
| Junior staff | 34,2 | 6,8 | 9,9 |

Nurses were the most susceptible to both burnout and concomitant somatic disorders. This fact is explained by the combination of high emotional stress and lack of administrative control over working conditions. Doctors had a lower rate of complaints, but different specific manifestations — hypertensive crises and cardiac arrhythmias were more often registered, while junior staff more often suffered from functional disorders of the gastrointestinal tract and general somatic complaints without a specific diagnosis.

An additional layer of analysis was the length of service factor: employees with more than 15 years of experience showed more severe symptoms and longer periods of temporary disability. They also experienced exacerbations of chronic diseases such as hypertension, peptic ulcer disease, and osteochondrosis, accompanied by pronounced asthenia.

A special attention was paid to external factors during the study. In institutions with an established system of psychological relief (internal training, flexible schedule, and psychological service), the average Maslach score was 23% lower, and the number of requests for somatic complaints was 36% lower compared to institutions where such measures were not available. This demonstrates the effectiveness of organizational interventions as a preventive mechanism against the development of destructive psychosomatic reactions.

All the results on the somatic health of healthcare workers, leading to an increase in medical visits, a decrease in the body's functional resilience, an increase in the number of days of temporary disability, and a decrease in overall professional efficiency. This highlights the need for systematic inclusion of emotional health prevention and support programs in the occupational health policies of healthcare organizations.

The syndrome of emotional burnout in medical workers, identified as a factor that negatively affects somatic health and professional functioning, requires a systematic, multi-level, and evidence-based approach to developing preventive and corrective measures. Based on the results of the study, recommendations have been formulated that cover both organizational and individual measures, as well as directions for monitoring and supporting the psychosomatic state of personnel. Taking into account the interdisciplinary nature of the problem, the implementation of the proposed recommendations is possible only through the collaboration of medical institutions, occupational medicine specialists, clinical psychologists, and human resources departments [1].

First of all, the introduction of primary prevention programs aimed at minimizing the factors that cause emotional burnout is considered a priority measure. This includes reviewing work schedules, regulating working hours, reducing the duration of continuous shifts, and introducing recovery periods. It is also necessary to update the provisions on mental health protection at the level of local regulations in healthcare institutions. Creating regulations for dealing with psycho-emotional stress and mandatory regular diagnostics of employees' conditions will allow for the early detection of problems and the prevention of their progression into chronic forms [5].

One of the key areas of prevention is the development of a system of psychological support for medical workers. Institutions should establish psychological assistance services that include specialists who can provide both individual counseling and group support. Regular training sessions on stress management, communication skills, conflict resolution, and emotional resource recovery have proven effective in a number of clinics with high levels of emotional stress. Creating so-called "safe zones" within the institution — spaces for relaxation, rejuvenation, and informal communication — also helps to reduce internal stress and increase stress tolerance [9].

No less important is the use of secondary prevention tools, which include early diagnosis of burnout and support for employees at high risk. This can be achieved through the use of standardized questionnaires (such as the Maslach Burnout Inventory), which should be administered at least once a year, especially in high-stress environments. Employees who demonstrate critical levels of burnout should be referred for additional counseling and, if necessary, given the opportunity to temporarily transfer to less demanding work areas or be temporarily relieved from duty [6].

At the systemic level, it is important to create a corporate culture that values mental health and prevents the stigmatization of employees who experience psychological difficulties. The institution's administration should demonstrate loyalty towards those who seek psychological assistance and support initiatives aimed at improving the emotional climate within the organization. Assessment of emotional stability and stress resistance should also be included in personnel selection, certification, and professional development planning procedures [3].

From the point of view of state policy, it is relevant to consolidate regulatory provisions on monitoring the syndrome of emotional burnout within the framework of the occupational safety system. The inclusion of the assessment of psycho-emotional state in annual medical examinations, the creation of standards for the prevention of burnout, as well as the allocation of funding for the implementation of personnel support programs are steps that allow at the level of the constituent entities of the Russian Federation and departmental healthcare systems to initiate the implementation of practice-oriented models of prevention of professional burnout with proven effectiveness [10].

Based on the analysis of the practice of domestic and foreign medical institutions, the generalized directions and tools of prevention are presented in Table 3.

**Table 3. A set of recommendations for reducing the impact of burnout on the somatic health of medical workers**

| Direction of influence | Content of recommendations |
|---|---|
| Organizational | Optimization of work schedules, reduction of shift lengths, introduction of restorative breaks, formation of local regulations on the protection of personnel's mental health |
| Psychological support | Creation of psychological assistance services, organization of stress management training, restorative practices, self-help groups, and recreation areas |
| Diagnostics and monitoring | Implementing regular emotional screening, working with risk groups, and developing assistance routes for high levels of burnout |
| Personnel policy | Support for employees who show signs of emotional exhaustion, and the introduction of sustainability criteria in staff selection and evaluation |
| State and departmental policy | Including emotional state assessment in medical examinations, regulating the prevention of burnout as part of occupational safety, and funding support programs |

The implementation of these recommendations should be carried out in a comprehensive manner, taking into account the specific features of the institution, the category of personnel, and the nature of professional stress. Only in this way can we

achieve sustainable results in reducing the level of professional burnout and improving the physical health of medical professionals, which will ultimately have a positive impact on the quality of medical care provided to the population.

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