



# **COMPREHENSIVE ASSESSMENT OF PHYSIOLOGICAL AND PSYCHOEMOTIONAL INDICATORS OF CHRONIC STRESS AMONG SPECIALISTS OF DIFFERENT PROFESSIONAL GROUPS IN THE REPUBLIC OF KARAKALPAKSTAN**

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<b>Article history:</b>	<b>Abstract:</b>
<b>Received:</b> 8 <sup>th</sup> April 2026 <b>Accepted:</b> 7 <sup>th</sup> May 2026	Chronic stress has become one of the most significant health challenges affecting the psychological and physiological well-being of working populations worldwide. The present study aimed to assess the physiological and psychoemotional manifestations of chronic stress among specialists from different professional groups in the Republic of Karakalpakstan. A comparative analysis was conducted among medical workers, teachers, and civil servants. The results demonstrated that medical workers and teachers experienced higher levels of chronic stress, emotional exhaustion, anxiety, sleep disturbances, and physiological symptoms compared to civil servants. The findings emphasize the necessity of developing preventive strategies and stress-management programs to improve occupational health and well-being.

**Keywords:** chronic stress, psychoemotional state, occupational stress, anxiety, emotional exhaustion, physiological indicators, Karakalpakstan

## **INTRODUCTION**

Chronic stress is recognized as a major public health concern that negatively affects both psychological and physiological functioning. Prolonged exposure to stressors may lead to emotional exhaustion, decreased work performance, cardiovascular disorders, sleep disturbances, and impaired quality of life.

In modern society, professionals working in highly demanding environments are particularly vulnerable to chronic stress. Medical workers, teachers, and public servants often encounter significant workloads, emotional responsibilities, and social pressures that may contribute to the development of chronic stress-related conditions.

The issue is especially relevant in the Republic of Karakalpakstan, where environmental and socio-economic factors may additionally influence psychological well-being. Therefore, investigating the prevalence and manifestations of chronic stress among different occupational groups is of considerable scientific and practical importance.

The aim of this study was to conduct a comprehensive assessment of physiological and psychoemotional indicators of chronic stress among specialists of different professional groups in the Republic of Karakalpakstan.

## **MATERIALS AND METHODS**

The study involved 60 participants aged between 25 and 55 years. The participants were divided into three professional groups:

- Medical workers (n = 20)
- Teachers (n = 20)
- Civil servants (n = 20)

Data collection was performed through anonymous questionnaires and psychoemotional assessments. The study evaluated the following indicators:

- Anxiety levels
- Emotional exhaustion
- Sleep disturbances
- Irritability
- Concentration difficulties
- Chronic fatigue
- Physiological manifestations of stress

Elements of the Perceived Stress Scale (PSS) were used to assess subjective stress perception. Physiological indicators included self-reported arterial hypertension, heart palpitations, headaches, and chronic fatigue. The obtained data were analyzed using descriptive statistical methods and percentage analysis.

## **RESULTS**

The results revealed significant differences in stress levels among the examined professional groups.



Medical workers demonstrated the highest prevalence of chronic stress. High stress levels were identified in 40% of medical workers, compared with 30% of teachers and 20% of civil servants.

The most common psychoemotional manifestations included:

- Anxiety
- Emotional exhaustion
- Sleep disturbances
- Irritability
- Reduced concentration

Medical workers reported the highest frequency of emotional exhaustion (68%), chronic fatigue (70%), and sleep disturbances (60%). Teachers also exhibited elevated levels of emotional fatigue (59%) and sleep-related problems (48%).

Among physiological manifestations, medical workers showed the highest prevalence of increased blood pressure (42%), heart palpitations (48%), headaches (55%), and chronic fatigue (65%).

The findings further indicated that longer work experience was associated with increased levels of chronic stress. Participants with more than 15 years of professional experience demonstrated the highest prevalence of severe stress symptoms.

### **DISCUSSION**

The findings of this study are consistent with previous research indicating that occupations involving intensive interpersonal interaction and high responsibility are associated with increased levels of chronic stress.

Medical workers experience continuous exposure to emotionally demanding situations, responsibility for patient outcomes, and heavy workloads. Similarly, teachers face significant psychological pressure related to educational responsibilities and communication demands.

The study also demonstrated a strong relationship between psychoemotional symptoms and physiological manifestations of stress. Anxiety and emotional tension were frequently accompanied by sleep disturbances, cardiovascular symptoms, headaches, and chronic fatigue.

Environmental and socio-economic factors specific to the Republic of Karakalpakstan may further contribute to the development of chronic stress among professionals. These factors should be considered when developing occupational health programs and preventive interventions.

The obtained results highlight the importance of implementing stress-management strategies, psychological support services, and workplace health

promotion programs for employees in high-risk professions.

### **CONCLUSION**

The study demonstrated that chronic stress significantly affects both physiological and psychoemotional health among specialists of different professional groups in the Republic of Karakalpakstan.

Medical workers and teachers were found to be the most vulnerable groups, exhibiting higher levels of anxiety, emotional exhaustion, sleep disturbances, and physiological stress-related symptoms. The findings emphasize the need for comprehensive preventive measures aimed at reducing occupational stress, improving mental health, and promoting overall well-being among professionals. Future studies should involve larger sample sizes and additional objective physiological assessments to further investigate the mechanisms of chronic stress.

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