



**SYSTEMIC REHABILITATION IN REHABILITATION CENTERS FOR
LAW ENFORCEMENT EMPLOYEES AND THEIR FAMILY MEMBERS
WITH FATIGUE SYNDROME OR FUNCTIONAL (REACTIVE)
ASTHENIA**

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Abstract:

This article outlines the peculiarities of conducting rehabilitation measures for law enforcement personnel and their family members with fatigue syndrome or functional (reactive) asthenia based on existing literature data.

Keywords: rehabilitation, adaptation, asthenic disorders, fatigue syndrome, physical therapy

Аннотация

В данной статье на основании литературных данных описаны особенности проведения реабилитационных мероприятия сотрудников правоохранительных органах и членов их семей с синдромом утомляемости или функциональной (реактивной) астенией.

Ключевые слова: реабилитация, адаптация, астенических расстройств, синдрома утомляемости, аппаратная физиотерапия.

**ЧАРЧОҚ СИНДРОМИ ЁКИ ФУНКЦИОНАЛ (РЕАКТИВ) АСТЕНИЯ
БИЛАН ҲУҚУҚНИ МУҲОҒАЗА ҚИЛИШ ОРГАНЛАРИ ХОДИМЛАРИ
ВА УЛАРНИНГ ОИЛА АЪЗОЛАРИНИ РЕАБИЛИТАЦИЯ
МАРКАЗЛАРИДА ТИЗИМЛИ РЕАБИЛИТАЦИЯСИ**

Изоҳ: Ушбу мақолада ҳуқуқ-тартибот ходимлари ва уларнинг оила аъзоларининг чарчоқ синдроми ёки функционал (реактив) астения билан адабий маълумотлар асосида реабилитация қилиш фаолиятининг хусусиятлари баён этилган.

Калит сўзлар: реабилитация, мослашиш, астеник бузилишлар, чарчаш синдроми, аппарат физиотерапия.





Introduction

Around 17 million people worldwide suffer from fatigue syndrome, with an estimated additional number of undiagnosed cases. Symptoms of this syndrome include persistent fatigue, headaches, insomnia, and frequent muscle spasms. However, the term "chronic fatigue" is still met with skepticism by many specialists, who consider it more of a psychological problem [1].

Traditionally, professional activities involving life-threatening situations are classified as those carried out in complex and dangerous conditions. In contemporary life, the hazardous professional activities of law enforcement personnel participating in operative actions hold a special place among individuals whose work is associated with increased psychoemotional stress.

The reduction of vigilance levels—chronic fatigue—is quite prevalent among the problems related to the dissemination of asthenic disorders and carries a pronounced social aspect. This pathology, causing significant health issues for 1-3% of the global population, becomes predominant and acquires a protracted chronic nature for half of the patients with vigilance disorders (i.e., a specific level of physical or mental activity) [2,3,5,9].

Functional (reactive) asthenia constitutes up to 55% of the total sample of asthenic disorders, highlighting the presence of fatigue syndrome in children and adolescents (at a rate of 127.82 cases of primary incidence per 10,000 population up to 17 years old). In comparison, the annual primary incidence for all nosological forms in neurology in Russia during the period 2000-2007 reached 1198.36 cases per 10,000 people in this age group. Notably, theorists and practitioners in military medicine, characterizing the prevalence of asthenic conditions or fatigue syndrome (as possible consequences of stress) among military personnel, indicated that these disorders affected from 28% to 45% of this social group in different years. This group experiences stress-laden situations in the line of duty, a significant volume of information to assimilate, and high motivation for professional responsibility.

The percentage of patients hospitalized in neurological clinics in Russia due to functional (reactive) asthenia or pronounced fatigue syndrome accounted for up to 18% of all types of neuroses worldwide at the turn of the 20th and 21st centuries. People constantly experiencing such complaints make up 1 to 3% of the general population. In the presence of any chronic diseases in the patient, the incidence increases several times, reaching 10-20% of cases. It is essential to note that, in addition to the wide prevalence of these symptoms, they have high significance, with many patients identifying fatigue as one of the most pressing and problematic aspects of the disease [1,7].





Fatigue arises due to various factors in the external and internal environment, both directly damaging the nervous system and negatively altering its functional state. The heterogeneity of fatigue syndrome is most clearly observed when considering individual presumed mechanisms of its formation, which, according to the level of nervous system damage, are conventionally divided into central and peripheral [5,11].

Central mechanisms of fatigue are associated with disruptions in the regulation of the motor system due to a decrease in overall brain activity and certain formations, as well as changes in hormonal and immune status. The level of depression, anxiety, emotional lability, and disturbances in the circadian rhythm also play a significant role in the formation of this syndrome; however, the mechanism of the impact of these factors is still not entirely clear [2,4].

Psychological resilience reduces the negative impact of strong emotional experiences, prevents stress, and allows a full demonstration of readiness for leading activities.

According to several leading domestic and foreign neurologists and psychotherapists, the so-called "psychopathological core" of these clinical manifestations is blurred. This core is characterized by a disturbance in the sensory mediation of fatigue, increased susceptibility to neutral (normal) external irritants, and disproportionality of sensations reflecting the physiological activity of internal organs. Asthenic syndrome of functional (55%) or organic (45%) nature, belonging to the latter, represents psychosomatic consequences of infectious, endocrine, oncological, hematological, and other diseases [3].

It has been shown that an elevated level of pro-inflammatory cytokines in the blood is associated with neurological deficit, depression, and fatigue in patients with fatigue syndrome. Therefore, inflammatory mechanisms participate in the pathogenesis of the disease and its symptom formation.

Comprehensive rehabilitation efforts for the personnel of the Ministry of Internal Affairs (MIA) are often organized in a non-systematic manner, lacking unified principles and a well-founded psychological approach. Conceptually justified methods of psychocorrection of psychopathological reactions and disorders are rarely applied. Mostly, everything boils down to well-known methods of medical rehabilitation of clinically outlined symptoms and syndromes.

An analysis of existing literature and our own data has allowed us to propose our formulation and concept for the rehabilitation of individuals (MIA personnel and military personnel) who have experienced psychological trauma and have served for an extended period in stressful operational and service conditions.





Working under the influence of stressful factors, intense professional loads without special psychological preparation, an insufficiently organized work and rest regime lead to an increase in occupational morbidity [12,13,14]. The state arising under the influence of extreme factors, in addition to the threat to the health and life of an individual, significantly reduces the success and quality of work, increases the level of psycho-physiological "cost" of activity, and often has a whole range of socially-economic and socio-psychological consequences. Over time, this includes a decrease in job satisfaction, changes in personal and characterological qualities, alterations in the social circle, and more. It is important to note that extreme factors are inherently inseparable elements of the professional environment, emphasizing the importance of an employee's resilience to hazardous working conditions.

Therefore, the search for ways to prevent occupational stress to preserve physical and mental health, the prevention of professional deformations, and the development of technologies to overcome the consequences have become one of the most important directions in applied medical-psychological science. It has gained socio-political significance at the level of intergovernmental programs aimed at improving the quality of life for military personnel.

Despite numerous works by various authors, there remain unresolved issues related to a comprehensive approach to the rehabilitation of military personnel in the conditions of outpatient and polyclinic medical-preventive institutions. An analysis of conducted studies of this type has shown that they are primarily focused on the isolated study of factors causing maladaptation, the development of methods for medical-social adaptation, as well as methods of medical-psychological and social rehabilitation. Questions regarding the use of advanced medical technologies and the information support of programs for medical-social selection, adaptation, and rehabilitation are not sufficiently developed. These unresolved issues have become the basis for conducting this research.

However, our analysis of open official and literary sources on the discussed problem has revealed a lack of unified conceptual views on the methodology of sea procedures and hardware physiotherapy (including their frequency, sequence, duration, and compatibility) for adults and children suffering from fatigue syndrome or functional (reactive) asthenia. This has justified the demand for conducting our own additional scientific research on the specified topic.





Prevalence of chronic fatigue syndrome and high risk of development among male and female personnel of the Ministry of Internal Affairs

Gender	High risk of development				Chronic fatigue syndrome			
	N	Prevalence, %	Ratio in %	P	N	Prevalence, %	Ratio in %	p
Male	425	71,3	85,0	< 0,05	303	23,2	86,8	< 0,05
Female	75	61,3	15,0		46	3,5	13,2	
Total	500	69,8	100,0		349	26,7	100	

Prevalence of chronic fatigue syndrome and high risk of development in different age groups among individuals surveyed at the Ministry of Internal Affairs' rehabilitation center.

Age (years)	High risk of development			Chronic fatigue syndrome			
	N	Ratio in %	P	N	Prevalence, %	Ratio in %	p
25 - 30	6	1,2	< 0,05	4	66,7	1,1	< 0,05
31- 40	61	12,2		43	70,5	12,3	
41- 50	178	35,6		124	69,7	35,5	
51 - 60	255	51		178	69,8	51	
Bcero	500	100		349	69,8	100	

Conclusions:

Therefore, rehabilitation programs aimed at restoring psychophysical health, work capacity, stress resilience, and adaptability in society bear a socio-psychological burden. They constantly respond to complex chemical, physical, and biological influences. Hence, a system for preventing mental disorders should be a state priority: it should focus on eliminating factors harmful to human health and ensuring the comprehensive development of their spiritual and physical strengths.

The process of restoring mental manifestations and abilities after any disruption, reintegrating individuals into society, is possible under conditions of humane treatment, belief in their strengths, and immersion in the real everyday life of individuals. This underpins the methodological framework for the socio-psychological support of the development of individuals, including employees with a history of stress, trauma, and chronic illnesses.



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