Manifestations of professional burnout syndrome in anesthesiologists and resuscitators

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Abstract
For the purpose of studying of burnout syndrome in anesthesiologists-resuscitators, 61 doctors of the Arkhangelsk region were examined. The following methods were used for the study: questionnaires, psychological testing, and mathematical and statistical processing of empirical data. It was found that 60.6% of anesthesiologists-resuscitators have a high level of professional burnout, characterized by emotional exhaustion and stress at work, deterioration of health and social adaptation. More than half of doctors have a high index of organizational stress and behavioral type A, use maladaptive coping strategies in dealing with difficult situations that have arisen, devalue their own experiences, underestimate the importance and possibility of actually overcoming problematic situations.

Keywords: Professional burnout syndrome; Professional stress; Anesthesiologists-resuscitators

Introduction
Currently, more and more attention is paid in science to the problem of professional stress and its consequences for medical workers working in conditions of increased moral responsibility, constant interaction with people, their problems and suffering. For the first time, the term “burnout” was introduced by the American psychiatrist H. Fredenberger in 1974. Initially, burnout meant a state of exhaustion with a sense of self-worthlessness.

Burnout syndrome is a physical, emotional, and motivational exhaustion characterized by decreased productivity at work, fatigue, insomnia, and increased exposure to somatic diseases, alcohol, or other psychoactive substances in order to obtain temporary relief, which tends to develop dependence [1].

Since the introduction of this concept, the study of this phenomenon has been difficult because of its content ambiguity and multicomponent. Currently, professional burnout syndrome in medical workers is recognized as a problem that requires non-urgent interventions. Among medical professions, this syndrome occurs in 30-90% of employees [2]. In modern
The professional activity of anesthesiologists and resuscitators is full of many stressful factors [3-6], this naturally leads to a high level of mental stress and determines an increased risk of developing other negative conditions, including violations of social adaptation, neuropsychic or somatic health [7,8].

Signs of professional burnout are observed in 25-60% of anesthesiologists and resuscitators [9]. Emotional exhaustion is 7 times more common in anesthesiologists and resuscitators than in other specialists [10].

Despite the literature studies of professional burnout syndrome among anesthesiologists and resuscitators, there are still few questions about the content characteristics of emotional reactions and styles of attitude to work within this syndrome. In this regard, there is a need to deepen scientific knowledge about the syndrome of professional burnout among anesthesiologists and resuscitators.

**Research material and methods**

In order to study the burnout syndrome of anesthesiologists and resuscitators and develop recommendations for prevention, 61 anesthesiologists and resuscitators of the Arkhangelsk region were examined, of which 21 (34.4%) were female and 40 (65.6%) were male; the average age was 42.9±12.4 years (M±σ). The following methods were used for the study: questionnaires, psychological testing, and mathematical and statistical processing of empirical data. The methods used included: the questionnaire "Attitude to work and professional burnout "V. Vinokur (ORPV), the McLean scale of organizational stress, the Freiburg personality questionnaire (FPI), the Spielberger test in the modification of Yu. Khanin, the coping test of R. Lazarus and S. Volkman. SPSS (version 23.0) and standard calculation methods were used to process the results.

**Results and discussion**

The results of the survey revealed that 55.7 % of doctors rated their current work as difficult and stressful. The indicator of organizational stress according to the McLean method for anesthesiologists and resuscitators was high (50.7±7.0 points; M±σ). More than half of the specialists (57.6%) were predisposed to various stress syndromes, the risk of burnout and cardiovascular diseases (type A).

According to the ORPV questionnaire, the highest values were found for anesthesiologists and resuscitators on the scales "emotional exhaustion", "work stress", "reduced professional development and self-improvement", "health disorders and General adaptation", indicating increasing fatigue, tension, poor health, feelings of frustration and dissatisfaction with their work, exhaustion, both physical and emotional, health problems, and a sense of obstacles in the prospects of professional growth and development.

A high integrative index of professional burnout was observed in 60.6% of the subjects, which indicated the formation of burnout syndrome in anesthesiologists and resuscitators. It can be noted that in comparison with the results obtained by other authors [11], we found a more frequent occurrence of signs of burnout syndrome in anesthesiologists and resuscitators (60.6% compared to 46.4%).

![Figure 1: Frequency of occurrence of symptoms of professional burnout in anesthesiologists-resuscitators, %](image)

The average group indicators for the Freiburg personality questionnaire corresponded to the average level of severity of the scales, high values were found only on the "openness" scale, which indicates a desire for confidential and Frank interaction with people around them with a high level of self-criticism.

Every second specialist was found to have an unstable emotional state, manifested in frequent mood swings, increased excitability, irritability, and insufficient self-regulation. Every third person surveyed noted the presence of anxiety, stiffness, uncertainty, depression in the emotional state, in behavior, in relations to themselves and to the social environment, which results in difficulties in social contacts. Every sixth person was found to have an aggressive attitude to the social environment, a pronounced desire for dominance, and prerequisites for impulsive behavior.

According to the Spielberger-Hanin method, the index of situational anxiety corresponded to 40.0±10.4 points (M±σ), and personal anxiety - 44.8±8.5 points (M±σ). 1/3 of the subjects had a high index of situational anxiety, which is manifested by increased anxiety, tension and nervousness about a number of situations occurring at work and in life in General. Anxiety as a personality trait was inherent in almost all anesthesiologists-resuscitators. The data obtained by us correspond to the results of other studies [8] on a high level of personal anxiety among anesthesiologists and resuscitators.

Three predominant coping strategies were identified (according to the method of R. Lazarus) that have the highest level of tension: distancing (51.1±1.31 points), search for social support (51.1±1.33 points), escape-avoidance (51.2±1.31 points), that is, in a stressful situation, anesthesiologists - resuscitators reduced its subjective significance and the degree of emotional involvement, increased the search for information, effective and emotional support, or reacted according to the type of evasion. Equally common for every fifth doctor (19.6%), the predominant strategies were distancing and seeking social support, for a slightly smaller number (17.4%), escape - avoidance, confrontation and planning for solving the problem were equally common (13.0%), and rarer strategies were taking responsibility (8.7%), positive reassessment (6.5%), and self-control (2.2%).
The correlation analysis revealed that with the increase in the indicator of organizational stress, emotional exhaustion \( (r=0.627; \ p=0.000) \) and work tension \( (r=0.617; \ p=0.000) \) increased, job satisfaction \( (r=0.748; \ p=0.000) \) and self-assessment of the quality of work \( (r=0.425; \ p=0.000) \) decreased, health and adaptation \( (r=0.608; \ p=0.000) \) decreased, and the stress of such a coping strategy as revaluation \( (r=-0.382; \ p=0.000) \), increased spontaneous aggressiveness \( (R=0.547; \ p=0.008) \), depression \( (R=0.459; \ p=0.032) \) and irritability \( (R=0.462; \ p=0.031) \). The following relationships were also identified: between emotional exhaustion and coping strategies of self-control \( (r=0.297, \ p=0.045) \), as well as spontaneous aggression \( (r=0.448, \ p=0.036) \), between coping strategies of escape and confrontation \( (r=0.435; \ p=0.003) \), flight and distance \( (r=0.384; \ p=0.008) \), distance and self-control \( (r=0.313; \ p=0.034) \), positive reassessment and planning \( (R=0.518; \ p=0.000) \). Consequently, when organizational stress increases, the risk of developing SPV increases, and irritation reactions may occur.

**Conclusions**

The results of the study suggest that anesthesiologists and resuscitators may be classified as a risk group for the occurrence and development of professional burnout syndrome.

Timely and differentiated preventive measures are required to mitigate the negative consequences of SPV. Prevention of SPV is a set of preventive measures aimed at reducing the likelihood of developing prerequisites. Prevention of SPV in anesthesiologists-resuscitators should include professional-organizational, social and individual-psychological areas of work, and contribute to the formation and strengthening of their psychological qualities that provide high psychological stability and readiness to perform professional duties in any environment.

**References**


