

Professional risks of burnout syndrome among surgeons

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ABSTRACT-The article presents the results of an empirical study of the features of professional burnout, life position, subjective representations of professionally difficult situations and mental states of surgeons from the standpoint of personal and organizational risks of professional burnout.

Keywords - professional burnout, psychological well-being, medical specialists, resources to counteract the burnout syndrome.

I. INTRODUCTION

The prevention of burnout of medical professionals is an urgent problem due to the fact that their professional health and psychological well-being depends on the life and health of others. Professional activity of medical workers has a high emotional intensity, a large number of factors that cause stress and psychophysical exhaustion. In this regard, medical specialists are highly susceptible to professional burnout, which is confirmed by a number of Russian and foreign studies – burnout syndrome in nurses, trauma physicians, dentists, psychologists, psychiatrists (Vodopyanova N. E., Starchenkova E. S., Gubin A. I., Evdokimov V. I., Boyko V. V., Larentsova L. I., Orel V. E., Lukyanov V. V., Maslach C.).

One of the most difficult medical specialties is surgery. According to the classification, surgery is a socially dangerous profession, as the surgeon is allowed to cause "damage" to the human body, both with the consent of the patient and without his consent in special cases. The activity of surgical specialists is associated with high responsibility for the lives of other people, self-acceptance of urgent decisions with a lack of time. The work requires from surgeons emotional stability, physical endurance, characterized by high loads on various analyzers, musculoskeletal system, cardiorespiratory system, etc. [1].

In Russian and foreign studies found that the factors destabilizing the professional health of physicians include burnout syndrome - burnout syndrome in nurses, trauma doctors, dentists, psychologists, consultants, psychiatrists (Vodopyanova N. E. Starchenkova E. S., 2005; Gubin A. I., Evdokimov V. I., 2007; Boyko V. V., 1999; Larentsova L. I., 2009; Maslach C., 1982, 1986, 1999, 2001).

II. PROFESSIONAL RISKS OF BURNOUT SYNDROME AMONG SURGEONS

The prevention of a problem the burnout is in connection with the life and health of other people depend on their professional health and psychological prosperity. Professional activity of medical workers has a high emotional saturation, plenty of factors defiant the stress state and psychophysical exhaustion. In this connection medical specialists are strongly subjects to the professional burning down, that confirms the row of Russian and foreign researches - syndrome of burning down for train nurse, traumatologists, dentists, psychologists-consultants, врачей-психиатров (Vodopianova N.E, Starchenkova E.S., Gubin of A.I., Yevdokimov of V.I., Fightsto V.V., Larentsova L.I., Eagle V.E., Luk'yanov V.V., Maslach C.). One of the most difficult medical specialties is surgery. On the classification of World Health Organization surgery behaves to the socially dangerous professions, because it is let a surgeon to inflict "damages" to the body of man, both from a consent a patient and without his consent in the special case.

The development of professional burnout is a consequence of the decrease in resource provision and involution of the subject's resources due to the violation of energy-informational interaction in the system "subject of labor – profession – organization - society" [5,6]. Violations in the system are, as a rule, maladaptive and destructive in relation to the psychological well-being of the subject and its activities, have a negative impact on business and interpersonal relations, communications in the professional and organizational environment, are manifested in a decrease in satisfaction with self-realization in the profession, self-actualization in other spheres of life, and with a high degree of burnout – in the deterioration of psychosomatic well-being. In some cases, in the early stages of burnout, it can have a positive effect in the form of encouraging actors to seek and engage new resources for professional activities.

From the standpoint of the subject-resource approach, countering professional burnout is the management and self-management of the resource provision of labor subjects.

Counteraction to professional burnout is provided with resources that contribute to the professional development of the subject of labor, the stability of its activities (stability of functioning) and overcoming situations and processes of destabilization of functioning. Identification of the processes of resource provision, its change due to the involution of resources of the subject of labor activity is important for the disclosure of the mechanisms of transition from "resource burnout" of the subject of activity to "burnout" (deformation) of the individual.

Three-factor procedural-dynamic model of K. Maslach and C. Jackson is used to diagnose burnout syndrome [11]. According to this model, burnout syndrome is considered as a three-dimensional construct, which includes emotional exhaustion, depersonalization and reduction of personal achievements.

III. THE THEORETICAL BASIS OF THE STUDY

Burnout syndrome is a complex psychophysiological phenomenon of emotional, mental and physical exhaustion that occurs due to prolonged emotional stress, developing on three levels – individual, interpersonal and organizational [10]. The adjective professional is used to clarify and limit the subject content of burnout as a subjective-personal syndrome. The nature of the phenomenon of professional burnout is considered by us as a systemic quality of the subject of labor in contrast to the traditional understanding of it only as a negative mental state.

The systemic nature of the phenomenon of professional burnout is manifested in mental States, attitudes, attitudes, to their own achievements and to other co-subjects of professional activity.

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IV. THE EMPIRICAL STUDY

The purpose of the study: the identification of professional difficulties in the work of the surgeons as potential risks of their professional burnout, a comparative analysis of the characteristics of burnout of surgeons with other health professionals, identification of personal factors that counteract burnout.

Hypotheses of the study:

1. The syndrome of professional burnout in surgeons has characteristic features that differ from doctors of other specializations.
2. An active and optimistic life position counteracts the development of professional burnout of surgeons: the stronger the subjective life position in the form of activity and optimism, the less pronounced professional burnout.
3. The most stressful, according to doctors have a situation related to the "loss of resources", but are more common with situations of "threat".

A. study Sample

The study involved doctors of various specialties (traumatologists, neurologists, therapists, dentists, a total of 134 people), including 52 doctors working in one clinic with a single base and organizational culture (28 surgeons and 24 doctors of other specialties).

B. Research methods

To assess the severity of the burnout syndrome, we used indicators of emotional exhaustion, depersonalization and reduction of personal achievements, an integral indicator of burnout using the "Professional burnout for medical workers" questionnaire [4]. To assess the life position, the scale of "RAO-2018" was used - realism, activity, optimism "[3]. Self-esteem of mental states was measured using the Eysenck scale. The assessment of the stress of the TCP took place in two stages according to the technology of N.E. Vodopianova. At the first stage, using the questionnaire to determine the typical difficult situations for surgeons specialists. Then, using the informative (qualitative) and quantitative analysis, six most typical situations were selected — two situations for the three types of PTS in accordance with the Lazarus classifications of stressful situations. The first type - the situation of "loss of resources." The second type is situations of "threatening loss of resources" (the experience of possible losses). The third type - "challenge" situations - situations in which "compensation" is less than personal contribution for emotional, intellectual, physical and other expenses and requires cognitively complex coping efforts to overcome these stressful situations. At the second stage, doctors were asked to evaluate typical TCPs by three criteria: frequency of occurrence, emotional tension and uncontrollability. The

integral stress index was estimated by the sum of points obtained for all subscales.

Statistical processing of the results was carried out using the SPSS Statistics software package. To assess the differences between two independent samples, the Mann-Whitney U-test was used. To determine the strength and direction of the correlation relationship between the components of the burnout syndrome and the personal characteristics and stressfulness of situations, the Spearman's rank correlation method was used.

V. THE RESULTS OF STUDY AND DISCUSSION

a) Features of professional burnout surgeons

An assessment of the prevalence and severity of burnout syndrome showed the following. A high and extremely high level of burnout in the sub-factor of emotional exhaustion is characteristic of 43% of surgeons, in the sub-factor of depersonalization - 38%, and in the reduction of personal achievements - 18%. According to the integral index, 57% of surgeons have a high and extremely high burnout level, which indicates a high risk of their professional burnout.

When comparing the burnout characteristics of surgeons and doctors of other specialties (orthopedic traumatologists, nephrologists, urologists, therapists in the same clinic), it was found that surgeons are more likely to burn out due to factors of emotional exhaustion and reduced professional achievements compared to doctors of other specialties.

Obviously, in the work of surgeons, a high level of physical and emotional stress, work in the "emergency waiting" mode, high responsibility, high working hours with operations, a large number of different in content and emotional intensity of contacts with patients in combination with the personal characteristics of doctors and a fast pace of life (development of medicine, the need for constant training in new techniques and technologies) lead to high energy costs, deplete the psycho-energetic resources of doctors, thereby determining development of professional burnout. Our results confirm the facts of other researchers. According to the literature, surgeons are characterized by the highest emotional exhaustion, depersonalization along with psychiatrists and oncologists relative to other medical specialties. Anesthesiology and resuscitation specialists, as well as surgeons, have high depersonalization. In terms of the reduction of professional achievements, surgeons show high rates, second only to private practice doctors and a traumatologist. All these comparisons confirm the special tendency of surgeons to the manifestation of burnout syndrome, expressed in the development of such components as emotional exhaustion and depersonalization.

b) Peculiarities of the life position of the identity of surgeons

According to the assessment of life position, it was found that 87% of surgeons are of the type "active optimist". They are characterized by faith in their strength and success, a positive attitude towards the future, and active actions in order to achieve the desired goals. They are vigorous, cheerful, not susceptible to despondency or bad mood, they easily and swiftly reflect the blows of fate, no matter how heavy they are, stress-resistant. The remaining 13% of doctors were equally divided among the following types of

life positions - passive optimist, passive pessimist, active pessimist, realist.

c) Indicators of self-assessment of surgeons' mental states
The results of the study of stressful conditions of the surgeons using the Eysenck scale (anxiety, frustration, aggressiveness, rigidity) showed the following.

In accordance with the norms of the scale Eysenck surgeon doctors are less anxious and frustrated, but more aggressive and rigid compared to doctors of other specializations. This may be due to the fact that the chosen profession implies and forms a high stress resistance, which is manifested in resistance to stressful factors of the surgeon. It is possible that the relatively low anxiety and frustration of surgeons is associated with high stress resistance.

At the same time, significantly significant differences in the level of aggressiveness between the two studied groups were found based on the Mann-Whitney test ($p = 0.021$). You can make the assumption that the aggressiveness of surgeons may be associated precisely with the features of the chosen specialization, and a high level of burnout contributes to its more progressive development. Obviously, a high level of depersonalization is also associated with a high level of aggressiveness.

The results we obtained in terms of aggressiveness correspond to the results of M.A Bagri, who, in her work "Features of the development of occupational stress among doctors of different specialties," wrote that one of the main symptoms of PS among surgeons is aggression [2]. M.V. Malov also notes the high aggressiveness of future surgeons. The author has found that the level of direct active physical aggression and the general level of aggression among the students of the last year who study the surgical specialty of surgeons is higher than that of the students of non-surgical specializations. He suggests that this pattern may be the result of the development of a sense of "power" and "permissiveness" among surgeons, and as a result of professional deformation, the transition of these feelings from business communication to other areas [8].

Despite the fact that the activity of surgeons is associated with high uncertainty, decisions often have to be made as soon as possible, and the working day as a whole is unpredictable, the results of mental self-assessment showed that surgeons are more rigid than their colleagues. Perhaps this is due to the fact that the operating activities of surgeons in the modern world are highly standardized, besides a large flow of patients allows you to develop skills and abilities almost to automaticity, a system of habits developed over the years and conservatism is manifested. An example of the manifestation of medical habits can serve as a huge number of medical signs. The power of the habit of believing in signs allows doctors to focus, relieve tension, tune in to the successful completion of work, reduce the significance of what is happening. A large number of medical workers will receive them, the doctor meets with them for the first time at the institute, and throughout the work experience this collection is replenished.

d) Assessing the stressfulness of difficult situations in the workplace

During the content analysis of the survey results on the activities of surgeons, the most typical recurring difficult situations (RDS) were identified.

As a result of the study, it was found that among all the stressful situations reported by the respondents, the "Threats" situations predominate to a greater degree (54%). "Challenge" situations make up 34% and "Losses" - 12%

In the first place in terms of the frequency of occurrence among stressful situations, there were mentioned situations of "threatened loss of resources" associated with communicating with patients (72% of respondents) and conflicts with colleagues (69% of doctors).

Comparative analysis of situations ("Challenge", "Threat", "Loss") according to the general stress-stress index showed that situations like "Losses" are perceived by doctors as more stressful compared to situations "Threat of loss" and "Challenge".

Communication with patients is an integral part of the doctor's work, but often this communication causes a lot of negative emotions, creates the basis for the development of a chronic feeling of stress. This can occur for a number of reasons:

- Because of his individuality, the doctor may not be able to communicate, it may be difficult for him to make contacts, he may be withdrawn or shy, all this will require additional efforts in his work;
- A large number of contacts during the working day. The Ministry of Health determines the amount of time spent per patient for the main categories of doctors (but this number can be adjusted by the chief doctors), for example, the therapist should receive 5 people per hour, that is, up to 40 people. can pass through it per day and up to 200 people per week.
- Difficult contingent: patients may worry about illnesses in different ways, they may behave aggressively or become apathetic, they may flare up, scream. The doctor meets people in a difficult period of their lives, so patients can behave aggressively.
- The need to contain emotions: although patients can reveal their feelings and violate boundaries, doctors, according to professional ethics, must manage their emotions and, if necessary, suppress negative manifestations. Depressed emotions and feelings, in turn, do not disappear without a trace, but grow like a snowball inside us, causing anxiety, tension, depression and a number of stress-related problems.
- Distrust of patients, doubt in competence: in the modern world with the development of the Internet. The doctor is faced with the fact that the patient can check his appointment in the World Wide Web, the opinions or opinions of others may raise doubts about the competence of the doctor. Therefore, the doctor is faced with a situation where his work is comprehensively compared and evaluated.

This fact is confirmed by statistics: trust in doctors in Russia has decreased in recent years: if in 2010–2015 there were more than half of Russians, in 2017 - a little more than a third of the All-Russian Center for Public Opinion [7] showed.

In particular, when considering complaints from patients, it was found that only 18 to 32% of complaints were related to the quality of medical care, the remaining 68–82% were related to the quality of communication between the doctor and patient. These services practically do not contain appeals "in essence". Patients complain about the behavior of doctors and nurses, their attitude. There is a huge

potential for improving statistics due to changes in behavior in conflict situations [9]. These complaints confirm the fact of high depersonalization, which we identified during the operation.

This problem can also cause a lot of negative effects in the form of burnout syndrome. Any conflict requires a lot of energy. The work of the doctor is often a team work, in case of a team disagreement, this may affect the results of the activity.

Conflicts with colleagues in medical practice are situations that, as a rule, are the best representatives of this profession, the "stars" of domestic medicine who must get along and sometimes compete, get together in good scientific institutions.

The third place in the frequency of occurrence of typical labor situations in situations related to employment (38% of respondents reflected this in their answers). A study at the University of London clearly demonstrated the effect of multitasking on IQ. This is comparable to people who do not sleep regularly or use drugs. Among other things, multitasking contributes to the development of the stress hormone - cortisol. Fast switching between tasks is depleting, cognitive and emotional activity, mental resources are depleted faster, and, therefore, the burnout specification occurs faster [10].

The remaining difficult situations were conditionally divided into two groups: professional situations (situations specific to the specifics of the professions) and organizational situations. Despite the lower level of professional and organizational situations, their overall level of stress is much higher. Organizational situations, in principle, can be eliminated. Difficult occupational situations are generally required for all medical professions. All of them require more detailed study. To avoid burnout, doctors should look for ways to reduce stress levels. In order to prevent burnout of physicians, you should look for ways to reduce the stress level of organizational conditions for personnel by optimizing management, applying additional competences of employees, etc.

The relationship of personal characteristics, the overall stress resistance of difficult situations in the workplace and burnout syndrome (results of correlation analysis).

The following significant positive correlations were found between emotional exhaustion and anxiety (0.435), disorder (0.547), rigidity (0.442), and general stress (0.411). Negative correlations between emotional exhaustion and the activity of life position (-0.364) and optimism (-0.412). The more subjective life position (subjectivity) is expressed in terms of activity and optimism, the less emotional fatigue.

An active and optimistic life position is negatively associated not only with emotional exhaustion, but also with depersonalization, that is, it is a personal resource for combating exhaustion. Obviously, a predisposition to positive thinking - belief in one's strength and success, as well as energy, vitality, risk appetite, active life position, help surgeons to overcome emotional exhaustion, depersonalization and decrease in personal achievements. The results obtained confirm the resource concept of combating burnout syndrome [5, 6]. Anxiety, frustration and rigidity positively correlate with emotional exhaustion and depersonalization, aggressiveness - with depersonalization, that is, contribute to the development of burnout syndrome.

A positive correlation of depersonalization with intra- and intersubjective factors was revealed:

- Anxiety (0.504), two-way correlation is significant at the level of 0.01;
- Frustration (0.462), two-way correlation is significant at the level of 0.01;
- Aggression (0.286) -correlation significant at 0.05
- Rigidity (0.358), bilateral correlation is significant at the level of 0.01;
- The problem of contact with patients (0.424). The correlation is significant at 0.05
- Overall stress stress (0.532) bilateral correlation is significant at the level of 0.01;

Negative correlations between depersonalization with:

- Activity (-0.360) two-way correlation is significant at the 0.01 level;
- Optimism (-0.349) the correlation is significant at the 0.05 level.

VI. CONCLUSIONS

Confirmation of our hypotheses was obtained that professional doctors have characteristic features that differ from doctors of other specialties. The stronger the subject active position in the form of activity and optimism, the less pronounced professional burnout. In a situation of stress, there are certain situations associated with the "loss of resources", but most often there are situations of "threat". Extremely stressful situation: surgical communication with "heavy" patients, organizational conflicts, multitasking and lack of time. The identified risk factors should be taken into account in the system of psychological support of the operation.

Reducing stress and exercise can lead to reduced psychological well-being. Optimizing the stress of the organizational environment should be a priority for medical care.

To maintain the professional health of doctors, a high level of optimism and activity, management skills of mental states such as anxiety, rigidity and frustration are important. To counter the subpersonal depersonalization important skills and abilities to resolve conflict situations, reduce the level of aggressiveness.

It can be assumed that the relationship of the parameters of the mental state and the syndrome of professional recovery is due to their mutual influence. For example, the occurrence of burnout syndrome, often in a state of inconsistency of desires in the possible possibilities. In order to actualize intra-and intersubjective resources against burnout, it was recommended to train surgeons in methods of psychological relief after work, training in self-control and regulation of mental states, increasing communicative loyalty to serious patients.

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