THE PROBLEM OF OCCUPATIONAL STRESS AS ONE OF THE FACTORS OF THE DETERIORATION OF THE PSYCHO-EMOTIONAL STATE OF MEDICAL WORKERS

This scientific article on the topic “The problem of occupational stress as one of the factors of the deterioration of the psycho-emotional state of medical workers” aimed at studying the problem of the influence of occupational stress on the psycho-emotional state, working capacity and performance of medical workers. The following types of occupational stress were identified in the process of studying: work stress, occupational stress and organizational stress as well as the causes that give rise to above mentioned stresses and stress types. In addition, we looked at the following phases of development of occupational stress: the phase of tension, the phase of resistance and the phase of exhaustion, which manifest themselves in the following signs:

1. The phase of tension. Acute experiences, dissatisfaction with themselves and anxiety prevail.
2. The phase of resistance. There is a decrease in emotional response level; attempts to reduce the list of functional responsibilities. The doctor becomes less emotional within the family and while communicating with friends.
3. The phase of exhaustion. Lack of emotions, harshness, rudeness, lack of sympathy, touchiness, detachment, psychosomatic and vegetative disorders.

Finally, conclusions about the causality and symptomatology of the deterioration of the psycho-emotional state of medical workers were drawn, questions about recommendations that contribute to the prevention of the stress state associated with professional activities and issues about the recommendations and prevention of stressful conditions associated with professional activities were examined.

Key words: burnout, occupational stress, psycho-emotional state.
Проблема профессионального стресса как одного из факторов ухудшения психо-эмоционального состояния медицинских работников

Данная статья направлена на изучение вопроса влияния профессионального стресса на психо-эмоциональное состояние, а также работоспособность специалистов в сфере здравоохранения. В процессе изучения данной темы были выделены следующие виды профессионального стресса: рабочий стресс, профессиональный стресс и организационный стресс, причины и виды. А также фазы развития профессионального стресса: фаза напряжения, фаза резистенции и фаза истощения, которые проявляются в следующем:

Фаза напряжения. Преобладают острые переживания, неудовлетворенность собой, тревожность.

Фаза резистенции. Отмечается уменьшение эмоциональной отдачи, предпринимаются попытки сократить перечень своих функциональных обязанностей. В семье, при общении с друзьями врач также становится менее эмоциональным.

Фаза истощения. Дефицит эмоций, резкость, грубость, отсутствие сопереживания, обидчивость, отстраненность, психосomaticкие и вегетативные расстройства.

В заключение были сделаны выводы причинности и симптоматики ухудшения психоэмоционального состояния медицинских работников, а также рассмотрены вопросы о рекомендациях, способствующих профилактике стрессовых состояний, связанных с профессиональной деятельностью.

Ключевые слова: выгорание, профессиональный стресс, психо-эмоциональное состояние.

Introduction

The high pace of the modern life is a factor that creates a psycho-emotional load. Constant tension negatively affects not only the state of the nervous system, but also the organism as a whole. People of some professions are in contact with stress factors almost constantly. Considerable attention is drawn to the peculiarities of the influence of professional activity on the state of health of those specialists whose work is closely connected with emotionally intense interaction with people. These specialists most often experience mental and physiological reactions to a wide range of work situations. These reactions are manifestations of such a phenomenon as occupational stress. Doctors can be categorized as persons most exposed to occupational stress with good reason (Maslach, 1982).

The social and economic “cost” of occupational stress among medical workers is very high. For example, in England, 40% of all cases of disability among doctors are associated with emotional stress. Doctors often have a high level of anxiety and clinically severe depression, often even more severe than their patients. Surveyed doctors often experienced chronic fatigue, headaches and muscular pain, exacerbation of somatic diseases, various sleep disorders, manifestations of irritability and aggression in relations with patients.

Similar disturbances were found among Russian dentists. According to A. B. Leonova (2004), doctors of clinics revealed a high level of manifestations of
acute stressful states in the form of anxiety, asthenia, and sleep disorders. Doctors working in polyclinics showed an increase in the signs of professional and personal deformities, the use of inadequate forms of stress relief (intensive smoking, alcohol drinking, demonstrative hostility in behavior). However, this and other studies (Vid V.D., Lozinskaya E.I., 1998; Kozina N.V., 1998; Vodopyanova N.E. 2002; Larentsova L.I., 2002) do not reveal many important aspects of the formation of occupational stress among the doctors. In addition, contradictory data on the relationship between the intensity of occupational stress and the sex and experience of doctors are noted in the literature, which makes it difficult to develop adequate ways to prevent and correct the state of occupational stress among these specialists. This adversely affects the effectiveness and quality of medical care, as well as the health status of the doctors themselves. This explains the practicability of further research related to the relevance of the work.

Medical care in combination with preventive work helps to reduce the loss of working time due to illness, and also helps to form, strengthen and preserve the health of citizens, which is, according to the Code of the Republic of Kazakhstan “On public health and the health care system” (Chapter 2 “Government Regulation and Management in the Field of Health”, Article 4 “Principles of State Health Policy”). One of the principles of state health policy of citizens of the Republic of Kazakhstan, namely: “attributing public health, safety, efficiency and quality ... to factors of national security”, as well as a reserve increasing material production and the growth of national welfare (The Code of the Republic of Kazakhstan, 2009).

Giving modern, safe, high-quality and effective medical care to the population directly depends on the health status of medical workers working in the health sector. Their work is one of the most complex and responsible human activities and is characterized by a significant intellectual burden (Izmerov, 2005). In combination with night and daily shifts, significant loads during the working day might cause the high risk of functional tension of the CNS and other systems, which contributes to the development of psychological stress and the occurrence of pathology (Kutsenko, 2003).

According to the materials of the industrial union, every day about 230 thousand doctors did not go to work due to illness, and the damage amounted to more than 90% of all lost work time. At the same time, the greatest losses were noted among medical workers of medical institutions, especially outpatient clinics, where specialists of a therapeutic profile mainly work.

For the healthcare industry, the issues of quantitative integral assessment of fatigue and categorization of the severity (tension) of medical work are still not resolved.

In addition, in modern conditions of patients’ increasing demands, it is necessary to study the possibility of optimizing the functional state of the body of medical workers, primarily doctors, preserving and strengthening their health in the work process by developing comprehensive measures to improve working conditions, improve efficiency on the formation, preservation and strengthening of health by paying attention to the medical, social and psychological aspects.

Apart from that, the development of diversity in Kazakhstan health care system, the participation of non-state municipalities in public health, government order, their increasing attractiveness for patients, dictates the need to identify problems related to the activities of doctors working in the state municipalities of the country, the outflow of which has become significant.

An important role belongs to the psychological factor of professional activity, the content of which scientists define in different ways.

According to some, one should study the psychological atmosphere of the collective, the employee’s relations with colleagues, the administration, others pay attention to studying the relationship between health and such psychological factors as satisfaction with the profession, working process, wages, ability to fulfill knowledge and abilities, attitude to work and awareness of its social significance, the desire to change jobs.

A number of scientists propose to evaluate employee participation in public life, interest in professional self-improvement, new technologies and sectoral changes.

Various studies have identified the problem of the relationship between the doctor and the patient, the effect of some deontological aspects on the emotional attitude, performance and health of medical workers.

Thus, the risk factors for professional and personal dissatisfaction of the medical contingent were identified. Even a permanent mental presence at work in a non-working environment already leads to chronic fatigue, maladaptive manifestations and, ultimately, to various health problems.

The professional activities of the medical workers are constantly accompanied by increased neuropsychic tension, responsibility for the lives of
patients, night shifts and weekend’s worktime, high workload due to forced combination and a number of other organizational factors. Therefore, the severity of these factors for each specific professional group in most scientific papers is analyzed in a comparative aspect.

Low wages, which do not correspond to the quantity and quality of labor invested, negatively affects the quality of work and the productivity of medical personnel and causes physical and neuropsychic overloads due to additional work, part-time work and excessively frequent duty on night shifts and days off.

According to the authors, up to 45% of labor losses in the industry are associated with unmet material needs of workers and up to 30% due to declining health caused by poor working conditions, emotional and physical overloads.

The issues of performance evaluation, labor productivity and the introduction of a differentiated form of remuneration in treatment and preventive care establishments are closely related to the problem of the material support of medical workers.

Thus, a review of the literature available to us for the period from the mid-80s of the last century and including modern studies to identify the characteristics of the work of health workers using different methodological techniques revealed differences in the methods used to collect and record information and the range of parameters studied. All this makes it impossible to offer a complex assessment of condition of medical workers, burdened by risk factors.

There are no modern studies of the work of therapeutic doctors, especially in connection with the reform of the health care system in Kazakhstan.

In accordance with the concept of V.V. Boyko, burnout syndrome is a dynamic process that is formed in stages, in full accordance with the mechanism of stress development. The author expresses this phenomenon as a defense mechanism, which provides the complete or partial elimination of emotions in response to selected traumatic effects. With emotional burnout, Boyko identifies three phases of stress: nervous tension, resistance, and exhaustion (Boyko, 1996).

One of the first places at risk of psychological syndrome of emotional burnout is occupied by the profession of a doctor and nurses working in pediatric intensive care. The works of T. G. Dubova, V. E. Oryol, T. V. Bolshakova, T. Y. Kopylova and a number of others are devoted to manifestations of burnout in medical workers. The authors point out an unexpected loss of interest in work, a formal attitude to their duties, conflicts with colleagues on non-principal issues during the emergence of a psychological syndrome of emotional burnout among medical workers. As V.E. Oryol points out, the socio-psychological relationships in medical institutions, both vertically and horizontally is one of the most important factor among the other socio-psychological factors of burnout. Social support from colleagues, people who are higher in their professional and social status, as well as other people (family, friends, etc.) has a decisive role in burnout prevention (Oryol, 2001).

Professor I. E. Gridchik studied the psychological syndrome of emotional burnout among medical workers in the anesthesiology and intensive care unit. The author emphasizes that the staff of these units is exposed to extreme stressful effects due to constant contact with critically ill patients every day during their professional activity (Gridchik, 2009).

Burnout syndrome has two criteria for determining exhaustion: emotional (feeling unwell, nervous exertion, etc.) and self-perception disorder (changing attitudes towards oneself and others).

The main manifestations that are characterize burnout syndrome are highlighted: physical – fatigue, sleep disturbance, deterioration of general well-being, diseases of the cardiovascular system, etc.; emotional – cynical attitude, pessimism, paucity of emotions, manifestation of callousness (towards colleagues, subordinates, relatives, patients), indifference, hard emotional experiences, etc.; behavioral – aggressiveness, reduced concentration and performance; intellectual – new ideas and theories in the profession do not arouse interest and former enthusiasm, preference is given to pattern behavior, the lack of non-standard, creative approaches, refusal to participate in development programs (trainings, tests, etc.); social – reduction of social activity, loss of interest in their hobbies, leisure activities; interaction with other people is limited to working moments; sense of loneliness.

Many health care workers with burnout syndrome are genuinely convinced that the harsh social standards of the medical profession impose restrictions not only on behavior, but also on feelings (“I do not have the right to feel angry, annoyed, fearful, guilty, otherwise I’m a bad specialist”). Moreover, this can create alienation from oneself. If at the same time medical worker unconsciously seeks to play the role of a “savior”, responsible for everything, this might lead a direct path to professional stress.

The behavior of health workers in extreme conditions characterized by distancing or complete
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merger. If the spatial and emotional distance between an individual and another person is too short, the specialist “becomes infected” with his condition, the “sense of self” is lost. This is the one way of the occurrence of the “professional burnout” syndrome. Another option – a person simply does not let others to interfere his space. He goes to communication, forcing himself with the word “must.” “Burnout” here is not from an unbearable involvement in professional activities, but rather from the unresolved personal problems that make it impossible to feel positive feelings in communication with people (Vodopyanova, 2000)

The main symptoms of burnout syndrome are:
– fatigue, exhaustion after an active professional activity;
– psychosomatic problems (fluctuations in blood pressure, headaches, diseases of the digestive and cardiovascular systems, neurological disorders, insomnia);
– he emergence of a negative attitude towards patients (instead of the previously existing positive relationship);
– negative attitudes towards the performing activities;
– aggressive tendencies (anger and irritability towards colleagues and patients);
– functional, negative attitude towards oneself;
– anxiety, pessimism, depression, a sense of meaninglessness of the situations, a sense of guilt.

The problems associated with the difficulties of managing their lives. Mental burnout is understood as a professional crisis associated with work in general, and not only with interpersonal relationships during the process. Burnout can be equated to distress (anxiety, depression, hostility, anger) in its extreme manifestation and to the third stage of the general adaptation syndrome – the stage of exhaustion. Burnout is not just a result of stress, but also a consequence of uncontrollable stress.

This syndrome includes three main components: emotional exhaustion, depersonalization (cynicism) and reduction of professional (decrease in personal) achievements (Maslach and Jackson, 1993, 1996):
– emotional exhaustion – a feeling of emotional emptiness and fatigue, caused by their own work;
– depersonalization – cynical, indifferent attitude to working process and the objects of the work;
– reduction of professional achievements – the emergence of a sense of incompetence in their professional field, the awareness of failure in it.

Most of all, the risk of the syndrome of emotional burnout is exposed to individuals who place unreasonably high demands on themselves. The personal characteristics of this category associate their work with the destiny of their whole life, the mission, so they blur the line between work and personal life. There are three types of people who are at risk of burnout syndrome:

The first type – “pedantic”, is characterized by conscientiousness, elevated to the absolute; excessive, painful accuracy, the desire in any case to achieve exemplary order (even to the detriment of themselves).

The second type is “demonstrative”, characterized by the desire to excel in everything, always be visible. However, they are characterized by a high degree of exhaustion when performing invisible, routine work, and fatigue is manifested by excessive irritability, anger.

The third type – “emotive”, is characterized by unnatural sensitivity and impressionability. Their responsiveness, the tendency to perceive the pain of others as their own borders with pathology, with self-destruction, and all this with an obvious lack of strength to resist any unfavorable circumstances.

Considering the burnout syndrome, it is impossible to ignore the heightened interest in stresses associated with work. The destructive impact of psychological stress can be even in progressive and well-managed organizations, since the development of stress reactions has complex multi-factorial dependence: from structural and organizational features, organizational culture, the nature of the work itself to the personal characteristics of employees, as well as the nature of their interpersonal interactions.

Stress can manifest itself in the following ways:

1. **Physical symptoms of stress**: rapid pulse; accelerated heartbeat; dizziness; muscle tension in the arms and legs; muscle tension of the jaw; rapid breathing; increased sweating; unusual emotions; stomach pains; toothache; loss of perseverance; random thoughts.

2. **Psychological symptoms of stress**: anxiety, confusion; unreasonable fear or complete panic; lack of self-confidence; irritability, frequent flashes of anger; inability to focus on the work being done; difficulty in making simple decisions; “Insatiable desires”, conflict situations.

3. **Behavioral symptoms of stress**: unreasonable aggressiveness addressed to colleagues or patients; sleepiness or insomnia; excessive appetite or lack thereof; carelessness on the roads; distraction, frequent troubles; propensity to use too much medicine; constant tapping with your feet may cause a nervous tick or mannerisms.
Usually there are three main types of stress arising at work:

**Job stress** (work stress) arises due to reasons related to work – working conditions, place of work.

**Occupational stress** arises due to reasons related to the profession, occupation or related activity.

**Organizational stress** arises due to the negative impact of the characteristics of the working organization on the employee. These concepts are very close, but not synonymous. It is advisable to use one or the other of them, depending on what kind of stress factors come to the fore.

### Table 1 – Causes of Occupational Stress

| Causes                                                                 | Immediate | General                                                                 |
|-----------------------------------------------------------------------|-----------|-------------------------------------------------------------------------|
| Events that have an impact on the development of mental tension and stress, for example, the complexity or danger of a work task, the emergence of a problem situation involving a threat to health and life, a shortage of time, a conflict with management of the organization he works in, etc. Most often, the immediate causes of stress are associated with extreme content and conditions of work. |           | Individual (psychological, physiological, professional) features of the subject of working process. It also highlights a group of additional factors of life and human activity that predispose to the occurrence of occupational stress and exacerbate its manifestations. These include the incompatibility of a number of organizational characteristics of work activities with the ideas and attitudes of a particular individual (for example, this concerns participation in decision-making, promotion, availability of feedback, etc.). |

Exposure to occupational stress depends on individual physiological characteristics and personality type (Vinokur, 2002). Several categories of medical workers are most susceptible to burnout. They are often conscientious, accurate, ones that are seeking order are very worried about every failure. The deterioration of the condition, and even more so the death of the patient, gives them a deep sense of guilt, even if they did everything right. This provokes constant internal experiences that ultimately lead to severe psychosomatic disorders.

Physicians seeking to always be the best react painfully to criticism. In addition, they are unable to perform a monotonous work for a long time. Activities in such conditions quickly leads to burnout.

The victims of occupational stress are also impressionable people who are capable of empathy. While taking the pain of others as their own, they quickly destroy their own psyche.

Not all cases of stress manifest as an instantaneous reaction to negative events. It can be a lengthy, progressive process of accumulating traumatic experiences that at some point destroy the psychological defense of the individual. Therefore, often a person does not notice and does not understand that he “enters” into a state of chronic stress, which, in fact, leads to emotional burnout.

There are three phases of occupational stress among medical workers (Kitayev-Smyk, 1983):

1. The phase of tension. Acute experiences, dissatisfaction with themselves and anxiety prevail.
2. The phase of resistance. There is a decrease in emotional response level; attempts to reduce the list of functional responsibilities. The doctor becomes less emotional within the family and while communicating with friends.
3. The phase of exhaustion. Lack of emotions, harshness, rudeness, lack of sympathy, touchiness, detachment, psychosomatic and vegetative disorders.

Experts in the field of stress management believe that burnout is contagious, like an infectious disease. Sometimes you can find «burning out» departments and even entire organizations. Those who are subject to this process become cynical, negative, and pessimistic; by interacting at work with other people who are under the same stress, they can quickly turn a whole group into a collection of “burned out” ones.

Burnout is the most dangerous at the beginning of its development. A “burnt-out” employee, as a rule, is barely aware of the symptoms of chronic emotional stress, so the first ones who notice changes in his behavior are his colleagues. It is very important to see such manifestations in time and properly organize the support system for such workers. It is known that the disease is easier to prevent than to cure; these words are also true for burnout. Therefore, special attention should be paid to the identification of those factors that lead to the
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development of this syndrome, and consider them while developing preventive programs.

Unfortunately, most medical institutions do not pay enough attention to the prevention of professional burnout. That is why so many complaints about health care workers come from patients. The constant stress caused the departure of many specialists in other areas of activity.

Currently, more and more attention of specialists is attracted by new technologies to prevent and overcome occupational stress. Some of them are aimed at adequate informing of representatives of the communicative professions about the early signs of “burnout” and risk factors. The sooner and more doctors learn about how this syndrome occurs and what signs and characterize it, the more opportunities they have to avoid or reduce its severity.

There are special courses of lectures and training sessions on the development of effective physician-patient communication and skills to overcome burnout are included in postgraduate training programs in many countries. In these models, a gradual transformation of the subjective vision and understanding of the situation is carried out using various strategies to overcome professional stress: emotional (actualization of feelings, reduction of emotional tension), cognitive (reassessment of the situation and own resources to resolve it) and behavioral (active targeted change of the situation).

The most effective are the group forms of work: special classes in groups of professional and personal growth, improvement of communicative competence (Balint method). A person can tolerate significant stress without an increased risk of developing mental or physical illness if he receives an adequate social support. This point of view of an outstanding psychologist G. Roberts is confirmed in the practice of psycho-prophylaxis and psycho-correction of the burnout syndrome.

Works on the study of occupational stress, its prevention and correction of medical workers, teachers, psychologists, managers are currently being conducted by the Department of Medical Psychology of the MAPO and St. Petersburg Balint Society.

In 1998, based on the principle of VAS (visual analogue scale) widely used in psychodiagnostics, to identify signs of occupational stress and the effectiveness of its correction among people of communicative occupations a questionnaire was created. (Nemov, 1995).

Special trainings are made abroad for physicians, allowing doctors to express their emotions, find understanding and support, resolve internal conflicts, and relieve tension. In some countries, burnout prevention is established at the national level. Recently programs for the psychological rehabilitation of medical personnel have also been developed and implemented in our country too.

Occupational stress has a negative impact on the quality of medical care and the lives of medical workers. That is why this problem should be given proper attention. The profession of a doctor and a nurse is associated with daily stress, so the group and individual work of psychologists with medical professionals is an important aspect of the prevention of psychosomatic disorders.

Thus, during the study of this problem, we found out that in the professional activity of medical workers the particular danger is burnout syndrome, which is manifested in the development of a professional stress state, loss of interest in work, formal attitudes to the duties, and conflicts with colleagues.

Moreover, in this regard, it is necessary to teach the person to reinstall priorities and think about lifestyle changes and making updates in the daily routine. Accepting responsibility for the nature of experiencing stress, you begin to gain control over yourself and at the same time mentally move from the position of the victim to the state of the survivor. One can begin by rekindling in oneself the attitude that professional activity can and should be fun and reviving while developing personal resources of every person.

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