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FORMING FIRE-FIGHTERS' PROFESSIONAL PSYCHOLOGICAL READINESS TO DEAL WITH THE CONSEQUENCES OF EMERGENCY

Стаття присвячена особливостям професійної психологічної підготовки пожежників-рятувальників до ліквідації наслідків надзвичайної ситуації. Проаналізовано професійну діяльність та патогенні фактори, що викликають фізіологічний і психоемоційний стрес пожежників-рятувальників. Автори доходять висновку, що ефективна професійна діяльність в умовах ризику залежить від рівня сформованості у працівників основних компонентів психологічної готовності: мотиваційного, когнітивного, вольового, регуляторного (емоційного) і типологічного.

Ключові слова: пожежник, рятувальник, професійна психологічна підготовка, надзвичайна ситуація, наслідки надзвичайної ситуації, професійна діяльність

Research problem formulation. The professional activity of the specialists of the fire and rescue services, dealing with the consequences of emergencies, takes place in special conditions and is characterized by the influence of a considerable number of stressful factors, the influence of which, in the case of insufficient development of professionally important qualities, leads to a decrease in the efficiency of the activity, professional burnout and psychosomatic disorders. One of the determining factors for training fire-fighters is effective professional and psychological training. The process of active social and psychological training helps to develop self-awareness, change the nature of needs, influence the choice of values, and shape attitudes to social norms [9, p. 64-67]. It allows you to counteract the deformity of the individual, objectify uncontrolled attitudes that destructively affect the nature and content of communication and, thus, open the prospect of reviving the plasticity of mental organization of the subject.

Rescue fire-fighters perform rescue work related to fire fighting, floods, natural disasters and other unforeseen accidents, and also deal with the consequences of accidents [5, p.17-42]. Rescue work is dangerous and requires

trustworthy cooperation – a wrong decision or behaviour can pose threat on health, life or property of the rescuer or others. The activity of fire-fighters is associated with significant physical and neuro-mental stress, caused by a high degree of personal risk, responsibility for people and the preservation of material values, with the need for decision-making in times of scarcity [1]. In addition, the activity of fire-fighters takes place in extremely unfavourable conditions, characterized by high temperatures, the presence of toxic substances in the environment, which requires the use of personal protective equipment. And periodic round-the-clock duty is a violation of the normal sleep pattern, which contributes to the development of pathological processes. These circumstances contribute not only to the development of fatigue, negative functional conditions, but also can be a cause of disease and injury [2, p. 318]. The representative of the profession must know the rules of first aid, have strong psyche, high stress resistance because events do not develop unpredictably, and not all people can be saved, sometimes they die in the eye, and this must be endured [3].

Analysis of the latest research and publications. Professional characteristics of rescue workers and fire-fighters, their

psychological and physiological features have been studied by V. Moliako, M. Smulson, V. Alatogortsev, N. Nayenko, etc. They relate to the theory of unity of the psyche and activity developed in domestic psychology by B. Ananiev, L. Vyhotsky, G. Kostiuk, O. Leontiev, B. Lomov, etc. Theoretical aspects of general and genetic psychology, which reveal the patterns of personality development as a subject of one's own life activity have been outlined by S. Rubinstein, S. Maksymenko, etc. Theoretical ideas about integrative personality approach to psychological analysis of activity have been offered by B. Ananiev, V. Merlin, K. Platonov, S. Rubinstein, etc. Psychological systematic research of activity has been conducted by S. Hellerstein, V. Dylerski). Systemic and structural approach to the study of psychological readiness for activity has been investigated by O. Hanushkin, M. Diachenko, L. Nersesian, V. Pushkin, O. Safin, M. Tomchuk, M. Korolchuk and others.

The purpose of the research. The purpose of the research is to analyze professional activities of firefighters as well as the unfavourable influence of pathogenic factors and determine conditions of firefighters' professional psychological readiness to deal with the consequences of emergency.

Research methods. Theoretical and empirical research methods have been used. Theoretical methods include the analysis of the papers by the domestic researchers and generalization of the obtained information. Observation, questioning, testing have been applied for the experimental part of the study.

Main body. The activities of fire-fighters are accompanied by adverse effects of physical, chemical, psychological and other pathogenic factors that cause severe physiological and psycho-emotional stress. Emergency conditions are characterized by a strong traumatic impact of events, adventures and circumstances on the psyche of the fire-rescuer [4, p.55]. Characterized by varying degrees of suddenness, scale, it can serve as a source of both objective and subjectively conditioned stress. Rescuer must be able to use the rescue equipment, know the safety, and be able to work at altitude. It is necessary to have excellent health, physical strength.

A specific stress factor for the fire-fighters' professional activity is the alert mode when carrying daily combat duty. In some fire situations, the anticipation of the fire is

accompanied by a reaction that may exceed the response that occurs during fire-fighting. During his work shift, the fire-rescuer is in a state of constant readiness to hasten to the scene in the event of a crisis to resolve it.

The work of fire-fighters and rescuers is associated with high physical loads, which are caused by the high rate of work during the evacuation of victims, dismantling of structures and equipment, laying of hose lines, work with fire-fighting equipment, evacuation of material assets, etc. Under these conditions, rescue fire-fighters work in special equipment, only the standard uniform of the fireman weighs about 30 kg, and with it you need to go down to the poles to the car, move quickly, manoeuvre during fire, walk up to the upper floors. Sometimes it is necessary to work in unusual poses (lying, crawling, etc.), in the conditions of limited space, in a non-breathable medium at a weight of a gas mask up to 15 kg. High smoke density can limit the visibility around. The activities of fire-fighters are accompanied by adverse effects of physical, chemical, psychological and other pathogenic factors that cause pronounced physiological and psycho-emotional stress [7].

Emergency conditions are characterized by a strong traumatic impact of events, adventures and circumstances on the psyche of fire-fighters. This impact can be a powerful and one-off event of life and health threats, explosions, knowledge crashes, etc., or multiple, requiring adaptation to constantly stress sources. Strenuous physical work in conditions of high temperature and humidity can cause disturbance of water-salt balance, thermoregulation of the body, headaches, unwillingness to move, inhibition of reactions. Reduction of oxygen concentration and the presence of combustion products (toxic gases released during combustion) have a poisonous effect on the body of workers. A. Osypov analyzes the data of experimental studies, which show that after fire extinguishing, staff efficiency is reduced to 76%. The indicators of fatigue assessment after daily alternation with fire fighting range from 54 to 68 relative units that corresponds to the fifth and sixth categories of labour difficulty [10].

The dynamics of performance and the degree of fatigue of the personnel of the fire department, specifics of operational and service activity indicate that the work of a fire-fighter belongs to the categories of hard and very hard

work according to the severity criteria. Experience shows that fire-fighters who do not have sufficient ability to work in the fire service, not only master this activity during a much longer period than others, but also have poorer performance than others, most often make mistakes, have less reliability at work. Taking into consideration all the variety of professionally important qualities we can distinguish between the most important ones which are applied to nearly any type of work. These qualities include: responsibility, self-control, professional self-esteem and several specific ones – emotional resilience, anxiety, risk-taking, etc. Personality traits that are able to regulate the level of functional status while on duty are of particular interest. Most often, this quality is emotional stability, which allows the employee of fire and rescue service to maintain the necessary physical and mental capacity in emergency conditions. Emotional stability allows dealing with stress more effectively, apply the acquired skills confidently and calmly, make adequate decisions quickly. Stress-resistant individuals are characterized as active, not impulsive, persistent in overcoming difficulties. In contrast, emotionally unstable individuals are self-centered, pessimistic, and irritable, perceiving the environment as hostile and tend to focus on irritants associated with danger. Emotional stability can be conditioned by motivation and level of aspirations to achieve high results, as well as by a sign of emotional experience, its duration and depth. An important role in professional activity is played by self-esteem; its inadequacy reduces the reliability of work in non-standard conditions [6].

Self-esteem largely determines the formation of other professionally important qualities. Thus, risk aversion is often caused by inadequately overestimated self-esteem. Highly anxious individuals are more sensitive to emotional distress, difficult to come out of this state, they often have emotional disorders of a neurotic nature. Anxiety is directly related to the risk of neurosis. Psychological resilience is more revealed in individuals with little anxiety. These individuals are more rational and with less emotional stress able to overcome the stressful situation. They are characterized by a higher mobility of mental processes, which offers greater opportunities for adaptation. Anxious people, on the contrary, appear to have typical rigidity of personal qualities and mental

functions, difficulty of social contacts, which hinders the implementation of a rational and adequate program of mental adaptation. Features of neurodynamics and some properties of temperament are also significant in many types of professional activity. It has been found out that people with a strong nervous system on the part of the disorder have a greater tendency to strenuous activity than people with a weak nervous system, characterized by higher anxiety and lower self-esteem. The dependence of activity efficiency on the properties of the nervous system is obvious. The state of stress experienced by fire and rescue workers in extreme conditions dramatically exacerbates the effects of people with weak nervous systems and does not affect people with severe nervous systems. Rescuers with a weak nervous system achieve higher results in preventative work. Introversion and extraversion are also professionally important for fire-fighters. Extroverts tend to experience the most monotony, fatigue-prone compared to introverts when working with limited external contacts and monotony [11]. The necessary mental properties of a person are developed in the course of his professional activity or offset by other properties through special techniques and methods of action. Only in extreme and emergency cases, which include fires, the requirements for individual mental properties increase sharply, at the same time, many compensation mechanisms do not work. And if emergencies often occur in professional activity, there is a need to screen people who meet the psychological characteristics of the requirements of the activity, or in the redistribution of their jobs, taking into account individual psychological prerequisites. Psychograms of fire-fighters can be divided into the leading groups, which include the following psychological qualities:

- courage;
- the ability to take responsibility in difficult situations;
- self-confidence;
- the ability to make the right decision not having the necessary information and time to comprehend it;
- the ability to evaluate strengths and capabilities objectively;
- the ability to maintain high activity for a long time;
- the ability to distribute attention when performing several actions, functions, tasks;

- self-control in conflicts;
- the ability to connect with new people quickly;
- the ability to accommodate people, inspire confidence in them;
- the ability to find the right tone, appropriate form of communication depending on the psychological status and individual characteristics of the interlocutor;
- risk propensity.

These qualities are manifested depending on the specifics of the tasks performed and are related to the success of professional activity. As the subjects of activities, fire-fighters develop personal qualities that are expressed in risk aptitude and resilience. At the same time, as they become professional, there is a decrease in risk aversion. Stress resistance of fire fighters and rescue workers increases showing the development of adaptation to the profession, to the conditions of professional activity.

Risk aptitude and stress resistance are correlated with vigour and plasticity, which characterizes the level of the employee's need for discovering the world, the thirst for professional activity, the desire and the degree of involvement in mental and physical work during elimination of the consequences of emergencies and ease of switching from one thing to the other in extreme conditions. It emphasizes the speed of transition from one way of thinking to the other in the process of interaction with the visual environment.

Professional activity contributes to the development of this type of personality, which is dominated by purely masculine qualities associated with the development of activity, motivation to achieve, the choice of situations in which to exercise physical and social activity. They are characterized by positional activity, high level of vitality, confidence, positive self-esteem, high achievement motivation, high search motivation, and quickness in decision making. Professional activity contributes to the formation of the type of personality in which the masculine traits are

associated with the search for situations aimed at the realization of human life activity. Thus, for the work of fire-fighters and rescuers a whole set of professionally important qualities, both individually-dynamic (reaction rate, emotional stability, etc.), and personal is required. They include courage, willingness to risk, determination, etc. At the same time, the professional activity of fire fighters and rescue workers leads to the development of their professionally important qualities such as stress resistance; courage; social introversion).

Conclusions. Thus, psychological readiness is a specific psychological entity that has a complex dynamic structure between which there are functional dependencies. Psychological readiness is largely determined by the persistent mental characteristics that characterize the psychological composition of the individual [8, p. 29-31].

Successful service activity depends on the level of employees' basic components of psychological readiness: motivational, cognitive, will, regulatory (emotional) and typological. Their purposeful formation significantly influences the success of the performance of official tasks in risk conditions.

Formation of psychological readiness of fire-fighter and rescuers for emergency operations can be implemented during specially organized psychological and pedagogical measures during the period of official training. The organization of work on the formation of psychological readiness of employees has a positive impact on the success of their work.

The research proves that the profession of a fire-fighter and rescuer has specific features, which include high level of danger, high level of trauma, high level of stress, riskiness, high level of responsibility, uncertainty of a situation, actions in conditions of limited space and time deficiency. All this leads to the development of high requirements for professionally important qualities of fire-fighters.

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Резюме

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ФОРМИРОВАНИЕ ПРОФЕССИОНАЛЬНОЙ ПСИХОЛОГИЧЕСКОЙ ГОТОВНОСТИ РАБОТНИКОВ ПОЖАРНОЙ ОХРАНЫ К ЛИКВИДАЦИИ ПОСЛЕДСТВИЙ ЧРЕЗВЫЧАЙНЫХ СИТУАЦИЙ

Статья посвящена особенностям профессиональной психологической подготовки пожарных-спасателей к ликвидации последствий чрезвычайной ситуации. Проанализирована профессиональная

деятельность и патогенные факторы, которые приводят к физиологическому и психоэмоциональному стрессу пожарных спасателей. Авторы приходят к выводу, что эффективная профессиональная деятельность в условиях риска зависит от уровня сформированности у работников основных компонентов психологической готовности: мотивационного, когнитивного, волевого, регуляторного (эмоционального) и типологического.

Ключевые слова: пожарный, спасатель, профессиональная психологическая подготовка, чрезвычайная ситуация, последствия чрезвычайной ситуации, профессиональная деятельность

Summary

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FORMING FIREFIGHTERS' PROFESSIONAL PSYCHOLOGICAL READINESS TO DEAL WITH THE CONSEQUENCES OF EMERGENCY

Introduction. The article considers the problem of forming fire-fighters' professional psychological readiness to deal with the consequences of emergency. The authors highlight that effective professional and psychological training is one of the determining factors for training fire-fighters.

Purpose. The purpose of the research is to analyze professional activities of fire-fighters as well as the unfavourable influence of pathogenic factors and determine conditions of fire-fighters' professional psychological readiness to deal with the consequences of emergency.

Methods. Theoretical and empirical research methods have been used. Theoretical methods include the analysis of the papers by the domestic researchers and generalization of the obtained information. Observation, questioning, testing have been applied for the experimental part of the study.

Originality. Having analyzed domestic research papers, the authors point out that separate aspects of the above problem have been explored so far. They include the study of professional characteristics of rescue workers and fire-fighters, integrative personality approach to psychological analysis of activity, systemic and structural approach to the study of psychological readiness for activity, etc. A special investigation on forming fire-fighters' professional psychological readiness to deal with the consequences of emergency becomes relevant.

Conclusion. The authors conclude that psychological readiness is a specific psychological entity that has a complex dynamic structure between which there are functional dependencies.

The research proves that the profession of a fire-fighter and rescuer has specific features, which include high level of danger, high level of trauma, high level of stress, riskiness, high level of responsibility, uncertainty of a situation, actions in conditions of limited space and time deficiency. All this leads to the development of high requirements for professionally important qualities of fire-fighters.

Successful activity depends on the level of employees' basic components of psychological readiness: motivational, cognitive, will, regulatory (emotional) and typological.

Keywords: fire-fighter, rescue worker, professional psychological training, emergency, consequences of emergency, professional activity.