

## **PEDAGOGY AND PSYCHOLOGY**

### **ECOLOGICAL FACTORS OF PSYCHOSOMATIC DISORDERS IN THE CONTEXT OF THE TRANSFORMATION OF THE HEALTHCARE SYSTEM**

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**Annotation.** *The problem of interrelation of professional activity of the person in eco-environment and its psychosomatic health is considered. It has been shown that maintaining psychosomatic health is possible if professional requirements meet personal potentials, the most important of which is resilience. The potential risk and environmental factors of psychosomatic disorders are analyzed.*

*It is noted that the self-awareness of the individual of his essence as a holistic structure, the activation of individual development processes allow to form life tactics aimed at maintaining and restoring their own health. The optimal ratio of the structural components of the personality and the maintenance of hierarchical subordination of levels ensures the preservation of basic intrapsychic connections, stability and stability of the psyche at this stage of development (structural aspect of health).*

*However, the dynamics of the interaction of these components and the degree of coherence of the main mental processes determines the unique nature of the individual's holistic and unique personality (dynamic or procedural aspect of health). A healthy personality is characterized by the orderliness and subordination of its constituent elements on the one hand, and the coherence of the processes that ensure the integrity and harmonious development, on the other. At the same time, health is an important indicator that characterizes the personality in its entirety, is a necessary condition for the integration of all components of personality into a single unique harmonious Self.*

**Keywords:** *psychological stability, psychosomatic health, psychosomatic disorders, eco-environment, ecological factors.*

**Formulation of the problem.** Modern realities of life in Ukraine cause problems in a person with mental health, whose life is associated with individual psychological properties and mental functions of his body. In modern conditions of transformation of the Ukrainian society factors of formation of the self-sufficient, integral and harmonious personality acquire great value. Social troubles, difficulties of adaptation and instability

of everyday living conditions are a difficult task for a person in everyday life.

We consider mental health as a level of psychological well-being, which is determined not only by the absence of mental illness, but also by a number of socio-psychological, biological, economic and environmental factors. Of particular importance is the mental balance of man in modern times. It is a necessary component of social adaptation of the individual in terms of maintaining its psychological stability in situations of increased stress.

The pathogenesis of ecologically conditioned mental destructions is reasonably associated with the concept of stress G. Selye (30s of XX century), which defines stress reactions as a non-specific reaction of the human body that occurs in response to adverse environmental conditions (the so-called "adaptive"). syndrome"). Thus, there is some ambiguity in the definition of "stress" as a factor that causes psychogenic disorders. We believe that stress in such conditions is due to a wide range of internal human conditions that occur in response to various extreme influences. In general, stress is defined as a set of physical, biophysical and mental reactions of a person to environmental stimuli or stressors. According to the theory of Cox & Mackay, stress should be considered as part of a comprehensive system of human interaction with the environment [6].

It is known that from birth to death a person leads his way of life in a certain ecological space, which directly affects him, and, conversely, he himself to some extent also forms this space, contributes to its development or destruction. The psychological state and mood of a person will depend on how this interaction takes place. Note that a poorly adapted ecological space (eg, dark or cramped room with musty air, cold or dim colors of work or living spaces) has a negative impact on the mental state of man. On the other hand, psychotherapeutic interventions are quite active now, in particular, such as aromatherapy, art therapy, nature therapy, which are based on the effective use of environmental factors (both natural and artificial) in the treatment of various mental illnesses, neuroses, depressive states, recovery optimal functioning of the human body and its efficiency [4].

Analysis of recent research and publications. In the works of V. Ananiev, Y. Yeliseyev, S. Kulakov, S. Maksimenko, I. Malkina-Pykh, V. Mendelevich, G. Lozhkin, N. Pezeshkian, G. Starshenbaum it is noted that the preservation of psychosomatic health of the individual is relevant problem, the solution of which means the achievement of harmonious development by the individual, maintaining the optimal psycho-functional state in the implementation of their own creative search and professional achievements [1, p. 54-73]. There is a need to identify and specify the relationship of human psychosomatic well-being in the eco-environment; in establishing the factors that would contribute to the preservation of her psychosomatic health, personal development in professional activities. It should also be noted that the state of mental health of the vast majority of the population and society in general is negatively affected by macrosocial and macroeconomic factors. Mental health is also distorted by factors of scientific progress such as informatization, globalization, materialization, socio-economic and political overload, and so on. The above determined the purpose and objectives of our

further study.

The purpose of the article is to substantiate the ecological component of human psychological health in the conditions of transformation of Ukrainian society.

**Presentation of the main research material.** The study of the ecological component of individual mental health in the conditions of transformation of Ukrainian society contributes to the formation of ecological competence of man in interaction with the natural environment. An integral component of a psychologically healthy personality is the formed ecological consciousness as the highest level of mental reflection of the social, artificial, natural environment and one's inner world; reflection on the role and place of man in the ecological space, as well as self-regulation of this reflection.

In the psychological literature, the ecological competence of the individual is seen as a manifestation of the ecological culture of man in the territory of its existence and livelihood. Modern challenges of the Ukrainian community pose a number of challenges to modern medical and psychological education, directly in the development, education and socialization of a person who realizes himself a patriot and citizen of Ukraine, able to live in socio-economic transformations and civilized interaction with nature, has a desire to self-improvement in the process of life, capable of conscious life choice and self-realization, etc. [1]. Indicators of the degree of fulfillment of these conventions are the level of formation of environmental competencies of modern man.

The Concept of the New Ukrainian School states that ecological literacy and a healthy lifestyle include the ability to use natural resources wisely and rationally within the framework of continuous development, awareness of the role of the eco-environment in life and psychological well-being, as well as the ability and desire to nature [2].

President of the American Geological Society E. Mures (1999) noted the society's underestimation of the role of the natural environment in the development of modern civilization, and he focuses on the misconceptions of educational institutions of developed countries about the content and practical significance of environmental consciousness [4, 5]. All these problems apply to the Ukrainian educational environment.

We will note that the most destructive influence on ecological consciousness of the person has ecological crises and ecological catastrophes. From the very beginning of mankind and to this day, man tends to influence environmental disasters such as earthquakes, fires, hurricanes, floods, solar eclipses, man-made disasters, epidemics and more. However, today their influence has increased significantly and has become much more threatening. Unexpected disasters have a variety of natures and are characterized as anomalous phenomena, due to the presence of two signs such as the reckless probability of eco-danger (disturbance of the natural balance) in each case and the particular complexity of its consequences. It is also worth noting that no matter what a catastrophe, it always occurs in a certain environment and, in essence, acquires the scale of an ecological catastrophe.

Exceptions, we note those natural disasters that bypass the halo of human existence and reckless catastrophic perception cause only in certain categories of the population and society as a whole. In addition to the mass death of people in some areas, they lead to

changes in the established way of life (such a change may be instantaneous or prolonged over time), mass stress, psychophysiological damage, growth of deviant behavior and more. The mobilization of efforts and resources to eliminate such consequences of catastrophes does not disappear without a trace for those who were not at the epicenter of events. However, the consequences of such catastrophes as the Chernobyl explosion and the nuclear bombings of Hiroshima and Nagasaki, which are located far beyond their own region, where the disaster occurred, are perceived by the majority as somewhat trivial.

Thus, an ecological catastrophe is an acute form of ecological pathology that has severe social and environmental consequences [5]. According to the level of sociality, ie the level of influence of the social factor that led to the environmental catastrophe, A. Prigogine identifies the following types of disasters: natural, environmental or socio-natural, technical, social [4].

We understand the ecological crisis as a process that takes place in the ecosystem, threatening the identity of the system or object. The ecological crisis is mainly of anthropogenic origin in the ecosystem, the characteristics of which are shifted under the influence of the human factor to the limits beyond which there is a threat of loss of this identity in the ecosystem. V. Krysachenko proposes to distinguish such types of ecological crises, the criteria of which are measured by the factor (mover), hierarchical status, object definition and the effect [5].

The impact of the ecological crisis on humans is carried out in two ways - direct and indirect. For example, when human life is conditioned by the presence in the ecosystem without negative consequences and in a situation where there is a real threat of human impact on the ecosystem up to a crisis and there is a threat to the existence of man himself. However, in modern society, man is mostly in an artificial natural environment, as a result of which environmental crises affect him indirectly and remotely. Such crises cause the emergence of a large part of the population, in the face of changes, such a psychological phenomenon as the crisis of identity. In essence, this concept means the loss of self-esteem, the inability (or difficulty) to adapt to their role in a changed society.

The identity crisis is characterized by the divergence of changing socio-economic relations and the rigidity of individual and personal attitudes and stereotypes of human behavior. There are four types of identity crisis: anomic (passive departure from difficulties); dissocial (intolerance, destructive style of behavior, intensification of aggression); negativist or passive-aggressive (veiled and hidden aggression, rigidity and orthodoxy of thinking); magical (irrationality and entering the world of mysticism) [4; 5]. As a result of this crisis, the following provisions can be identified in relation to modern ideas about stress: stress is seen as an individual-personal phenomenon; stress develops as a result of negative human interaction with the environment; individual psychological changes are characteristic not only during the experience of stress, but also in the corresponding reactions of the body to stress [1 - 5].

So now the harmonious influence of man on nature and its coexistence within the ecosystem is very important, without the consequences of the psychopathogenic influence

of this interaction. Relevant are the psychological aspects of human relationships with the environment (artificial, natural, cultural, social), which is organically included in human life and serves as an important factor in regulating its behavior and social interaction [2, 3]. The pathogenic effect on human mental health in conditions of environmental distress has been proven in the course of transcultural research in the survey of the population in extreme situations, in environmentally unfavorable regions, in areas of natural and man-made disasters, where there is also an increase in psychosomatosis (functional disorders, somatic diseases). organic destruction, which is based on quite significant negative psychological factors or distress) [4]. Such pathology has certain features of combination, synergy of a number of factors (including conditionally pathogenic); their somatotropism (a consequence of the coexistence of mental, somatic and neurological changes); coexistence of psychogenic and exogenous reactions, population and individual symbiosis of needs; sensitization (as a special vulnerability to new, somewhat isolated environmental impacts).

Instead, the indirect effect of these psychogenic factors was much greater not only on individuals but also on society as a whole. accordingly, in people who lived in areas contaminated with biochemicals, life changed suddenly. They lost not only their health, but also their natural psychological status (ability to work, friendly, often family, relationships, and, consequently, confidence in the future). There are personal changes such as rent guidelines, feelings of lost health, the position of "victim", "symptom of exclusivity", symptom of helplessness and feeling of "lost future", etc. The consequence of such a long action of internal stressors can be the disintegration of mental integrity of man, in the genesis of which there are various psychosomatic diseases, neuroses and psychoses.

A person's psychological health, as you can see, depends not only on the events that take place in his life (even favorable ones), but also on his reaction to them. So resilience in overcoming difficulties, self-confidence, maintaining faith in oneself, in one's abilities, a constant high level of mood, perfection of mental self-regulation are integral components of her mental health. The components of psychological stability include the ability to personal growth, the settlement of intra-personal conflicts (role, motivational, value); developed volitional regulation and relative (probabilistic) stability of the emotional state.

Given the above, psychological resilience (PS) is ensured by a number of physiological, personal and social factors. Based on the analysis of scientific sources and the results of our own research, it was found that hypertension is stimulated by the following factors: suppressed aggression, interpersonal conflicts; chronic intense anticipation; unresolved conflict; psychological inheritance; guilt; psychological rejection of the future, loss of faith and optimism, a high level of anxiety and motivation to achieve. The "portrait" of a person with hypertension looks like this: neat, conscientious, sociable, meticulous, punctual, vulnerable, self-critical and demanding of themselves, with prolonged stress show aggression, anger, fear, resentment; hypochondriac, constantly in unexpressed stress. Coronary heart disease is caused by tolerance and safety to the symptoms of the

disease; the action of a strong emotional stimulus; constant fear, aggression, a feeling of exhaustion; intense life rhythm, desire for success, social significance; obsession with success and career growth. The "portrait" of the individual is now as follows: emotional, hyperactive, overly sensitive, extroverted, purposeful, active leaders, demonstrative. The causes of cardiac arrhythmias include situational conflicts; internal overstrain, rejection of passionate desires, needs. Personal characteristics are as follows: excessive control over their feelings and protect their emotional world; conformists. Cardioneurosis is promoted by excessive dependence on parents; psychological traumas of childhood, depressive-symbiotic fantasies; self-defense in the form of hypochondriac mood. Patients with cardioneurosis are not independent, they are afraid of loneliness and separation from relatives; introverts, avoid difficulties; excessively care about their health, read a lot of medical literature [1, p. 70].

The development of ulcerative colitis is caused by the dominance of such personality traits as accuracy, punctuality, fairness, politeness, meticulousness with elements of obsession, excessive self-control. Gastric ulcer is caused by the predominance of such traits as egocentrism, envy, resentment, passivity, aversion to the world around, hostility, etc. [1, p. 64].

Researchers with skin disorders are distinguished by such features as a tendency to a passive position in interpersonal relationships, high sentimentality in relationships with loved ones, self-doubt, risk aversion, feelings of inferiority, social isolation, negativism, accompanied by fear, distrust, suspicion, anger and fear. In emotionally unstable individuals, there is also an interdependence in psychosomatic disorders of the gastrointestinal tract (CSF) and skin (SB) [1, p. 58].

In general, empirical research has revealed (Table 1) an inversely correlated relationship between psychological stability and the studied somatic disorders.

Table 1

**Relationship between indicators of psychological resilience (PS) and somatic disorders**

	ShKT	SS	ShP
High rates PS	0,027	0,017	0,033
Low rates PS	0,227**	0,257**	0,215**

\*\* – the correlation is significant at the level  $p \leq 0,01$

It was found that the average indicators of psychological stability of women are significantly higher than men ( $11.13 \pm 0.32$  and  $9.07 \pm 1.02$ , respectively). Analysis of the obtained data by K. Pearson's criterion  $\chi^2$  shows the presence of significant differences ( $\chi^2 = 16.87$ ,  $p \leq 0.01$ ) of the average indicators of psychological stability of CG and EG. Thus, with the help of the comparison strategy it was stated that the reference control (psychosomatically healthy individuals) and experimental (individuals with psychosomatic disorders) groups have significantly different meanings and distribution of signs of psychological stability. The identified qualitative and quantitative differences became the basis of the formative strategy, the main task of which was to bring the

indicators of EG participants to the indicators of CG-reference, ie the restoration of psychosomatic health [1, p. 57].

Thus, resilience in overcoming difficulties, maintaining self-confidence, self-confidence, self-sufficiency, perfection of mental self-regulation – an integral part of mental life. Feelings, perceptions, experiences and evaluation of one's own life position determine the degree of resistance of the organism, its endurance to psychological discomfort and somatic disorders, which measures the resources of psychological stability of the individual. The ability to maintain a constant level of mood, to feel the emotional saturation of life, polymotivation of life - the signs of a harmonious life, which we sought to reproduce during psycho-correctional work, according to the results of the statement.

Thus, considering the environmental factors that affect human mental health, it is worth focusing on the definition of "human environment" as a set of objects, factors and phenomena of the eco-environment that directly surround a person and affect the living conditions, work, food, recreation, education and training, etc. Ecological factors also include the impact on human life of any biological (parasitic, viral, bacterial, prion and genetically modified organisms, biotechnology products, etc.), chemical (natural and synthetic, organic and inorganic), physical (vibration, noise), ultrasound, heat, infrasound, ionizing, non-ionizing and other types of radiation), social (water supply, nutrition, living conditions, recreation, work, education and training) and other factors that affect human health [1].

The most common environmental factors that adversely affect human life and health include air pollution, which causes psychosomatic disorders of the upper respiratory tract, allergies; expansion of the ozone hole, which increases the risk of skin disorders; pollution of surface water and drinking water, which leads to disorders of the intestinal cavity; soil pollution by waste (liquid and solid, industrial and domestic); use of GMOs; food contamination that causes allergies and mass poisoning); influence of non-ionizing and electromagnetic (mobile phones, IT technologies, base stations, etc.) radiation; magnetic storms and solar activity, etc. The multiplicity and peculiarity of the above factors influencing the psychosomatic state of the human body in the transformation of Ukrainian society should be considered in the context of psychodiagnostics of destructive effects on mental health, the formation of interventions and preventive measures to restore psychological stability in pathogenic influences.

**Conclusions.** Thus, as a result of the theoretical substantiation of the impact of environmental factors on human mental health, we investigated the role of psychological resilience and the impact of stress on the mental health of the individual. The ecological component of mental health has been studied, in particular the influence of the ecological environment on the mental state of an individual; the characteristic of concept, types and features of influence of ecological crisis in the conditions of ecological catastrophe on mental health of the person is given; the role of identity crisis as a consequence of social impact on its psychological health is considered. The main factors of human habitat that negatively affect his life, ability to work and health are highlighted.

Prospects for further research are to clarify and identify the factor weight of personal potentials that can ensure psychosomatic health in professional activities in the eco-environment.

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