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**THE CORRELATION BETWEEN THE TYPES OF HUMAN  
TEMPERAMENT AND SOMATIC DISEASES, INCLUDING  
CORONAVIRUS DISEASE**

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***Abstract.** The research deals with the psychological issues of optimizing the behavior of an individual and society in the situation of coronavirus pandemic. The aim of the research is to outline the psychological tools for overcoming personality distress due to the data on the correlation between the types of human temperament and the types of stress and somatic diseases, including coronavirus disease. The tasks of the research stemming from its aim are as follows: presenting an objective method of ascertaining the types of human temperament; finding out the correlation between the types of human temperament and the temperamental types of stress and somatic diseases, including coronavirus disease, due to the rich experience in psychotherapeutic activities of the authors; making supposition as for the most likely vulnerable high-risk group of the coronavirus disease in a pandemic process; outlining some important approaches of psychological counseling and psychotherapeutic work with the clients in coronavirus pandemic.*

*The methodological foundations of the study are connected with scientific*

*concepts, psychological, psychotherapeutic and medical ideas concerning the nature of stress/distress and the methods of overcoming their negative effects. The participants in the experimental work are about 4000 clients having taken part in authors' psychological counseling and psychotherapeutic activity. The used methods are the objective computerized method of ascertaining the types of human temperament as well as the methods of psychological counseling.*

*It is shown that there are five types of stress which correspond to five types of human temperament. The fifth type is called an equilibrium type, since it is located between cholerooids and sanguinooids, on the one hand, and melancholooids and phlegmatooids, on the other. Thus, the psychotherapeutic work with people to overcome stress should take into account their temperament. The experimental data enable to make a supposition about such preferred diseases and the symptoms stemming from the conditions of person's psychodynamic incongruence, as: a) possible cholecystitis, hepatitis in cholerooids; b) myocardial infarction in sanguinooids (about half of their total number); c) lung diseases and the problems with kidneys in the representatives of the equilibrium type; d) angina pectoris and hypertension in melancholooids; e) probable gastrointestinal disorders and diseases, even stomach ulcers in phlegmatooids. The representatives of equilibrium type of temperament are characterized by pulmonary and renal diseases as preferred diseases. There are 4% of such representatives in the entire population. In the light of statistical data on coronavirus disease in a pandemic, they can be considered a high-risk group. It is this group that can form the core of 10-15% of the population who actually are open to the coronavirus threat.*

**Keywords:** *coronavirus disease; overcoming personality distress; human temperament; temperamental types of stress and somatic diseases; high-risk group of the coronavirus disease.*

**Introduction.** A large-scale global coronavirus catastrophe has become a serious test for human civilization, separate countries and their citizens. The pandemic led to tectonic upheaval in the political, economic, social, moral, psychological organization of human civilization. A new era has come in the history of world civilization, which can radically change the way of life of mankind!

Our research of the phenomenon of coronavirus pandemic relies on both certain data we have obtained during our scientific activity, and the data obtained as a result of the work on an international manual in which we were editors [2]. The manual highlights the conditions, methodological features and results of a special online study carried out by a team of Ukrainian, Belarusian and Russian philosophers, psychologists, educators, biologists, physicians, psychiatrists.

Even a superficial analysis of the events provided daily by the media indicates that the cross-cutting topic for reporting on this issue is the *psychological issues of optimizing the behavior of an individual and society* in the situation of a coronavirus pandemic. These are the questions of scientific understanding of the essence of the occurring phenomena, as well as grounding necessary adequate

changes in individual and mass consciousness and behavior, the development of measures for proper protection from the threat of illness.

People's behavior in a pandemic situation demonstrates diverse, sometimes ambivalent approaches and attitudes towards the pandemic: active and passive, optimistic or pessimistic, humanistic or barbaric, positive or negative thinking, etc. Psychologists are well aware that in extreme situations people, being sthenic or asthenic, can behave differently [4].

Sthenic feelings activate a person's vital activity, enhance his/her energy, and stimulate cognitive, intellectual, creative, productive, innovative activity, which ultimately leads to success in life. Here we talk primarily about organized sthenic reactions, which are based on adequate information about the events, their scientific understanding, good preparation for organized behavior in a problem situation. In the opposite case, unorganized sthenic reactions can be chaotic, impulsive, on the verge of panic and therefore destructive.

Asthenic emotional reactions are characterized by a decrease in vitality, organ functions, sensitivity, motivation, thus leading to slowness, lethargy, or even to a halt in activity, which in extreme situations often causes errors, failures, diseases, etc.

That is, people can be divided into at least two types, which is actually observed in the behavior of the population in the situation of the coronavirus pandemic. In reality, these types are much more. Let us recall only the well-known four types of temperament: fast choleric subjects with impulsiveness and uncontrollability; strong balanced energetic sanguine subjects; melancholic subjects with high sensitivity, anxiety, fatigue; relatively slow and inert phlegmatoids. It is clear that their different responses to the pandemic can be taken into account when providing them with psychological assistance. And such responses can be adequate and inadequate.

The latter response is mostly a stressful reaction of an individual on the coronavirus events. This stressful reaction leads to inadequate behavior of a person which undermines the psychophysiological bases of human health.

An analysis of scientific literature on various aspects of health allows us to make a conclusion that has the character of a postulate: *health as a psychophysiological entity most fully characterizes the state of integrity of the human body, thus ensuring the functional completeness and diversity of this organism* [9].

This integrity of the human being is manifested in the fact that any negative stimulus of external environment is met by the organism in the form of the stress, leading to various diseases [6]. The stress (the nonspecific response of the body as a whole to any stimulus influencing it) is accompanied by a set of nonspecific reactions that are common to all diseases without exception. Thus, a narrow set of reasons, or, better to say, some universal factor lies at the root of any disease, which leads to the weakening of the organism's vitality/immunity thus reducing its living space. Eventually one of the "weakest links" of this organism is affected, being considered a disease, including COVID-19.

**The aim.** The aim of the research is to outline the psychological tools for overcoming personality distress due to the data on the correlation between the types of human temperament and the types of stress and somatic diseases, including coronavirus disease.

**Tasks.** The tasks of the research stemming from its aim are as follows:

1. Presenting an objective method of ascertaining the types of human temperament.

2. Finding out the correlation between the types of human temperament and the temperamental types of stress and somatic diseases, including coronavirus disease, due to the rich experience in psychotherapeutic activities of the authors.

3. Making supposition as for the most likely vulnerable high-risk group of the coronavirus disease in a pandemic process.

4. Outlining some important approaches of psychological counseling and psychotherapeutic work with the clients in coronavirus pandemic.

**Purpose.** The participants in the experimental work are about 4000 clients having taken part in authors' psychological counseling and psychotherapeutic activity. The methodological foundations of the study are connected with scientific concepts, psychological, psychotherapeutic and medical ideas concerning the nature of stress/distress and the methods of overcoming their negative effects.

**Methods.** The objective computerized method of ascertaining the types of human temperament developed by the Ukrainian scientist B. I. Tsukanov as well as the methods of psychological counseling (the American Psychological Association defines counseling psychology as a field that “addresses the emotional, social, work, school, and physical health concerns people may have at different stages in their lives.”) – participatory observation, self-observation, polling, mental experiments, expert macro- and micropsychoanalysis of the coronavirus situation.

**Results.** The concept of stress/distress was introduced into scientific world by American physiologist Walter Cannon and Canadian biologist and physician Hans Selye. This concept is a certain summary of the experimental study of the general adaptation syndrome in the course of various diseases, which H. Selye defined as a syndrome of a disease proper, being "*nonspecific response of the body to any demand*". Such symptoms as loss of appetite, muscle weakness, excessive fatigue, exhaustion, decreased blood pressure, poor activity productivity, disorder of the digestive organs, etc. form this syndrome [6].

In his concept, H. Selye connected stress with adaptation/defensive organismic reactions. Moreover, he distinguished the so-called normal stress (which serves the purpose of adapting the organism to environmental changes) from prolonged intensive and therefore pathogenic stress – a distress.

The latter acts as a pathologizing factor caused by individual's inadequate perception of complex reality. H. Selye understood intense chronic stress in a dialectical way, that is why he complemented its negative character – distress, associated with negative emotional stress, with another kind – the so-called eustress, caused by intense positive emotions and thus also being unsafe for humans.

The scientist proposed the physiological formula of the process of stress, consisting of three components or stages – anxiety, resistance, and exhaustion of human organism. This general formula can be used in the psychological work of specialists with distress being the harmful form of stress.

Therefore, some psychologists are normally focusing their efforts, firstly, on working with phobias, anxiety, fears, and secondly, on optimizing the process of confronting a person with distressors, and thirdly, on the process of restoring the normal psychological state after depletion of human organism and personality resources in a post-stress period.

That is, *the technology for removing the pathogenic effect of distress* should include three groups of methods that

1) provide confidence, courage, and resilience in a person facing with new uncertain stimuli,

2) insure sufficient energy, information, and personality resources for safe and productive counteraction to distress and,

3) presuppose the use of rehabilitation – the process of restoration of normal state of individuals in a post-traumatic situation, etc.

Using rich experience as a physiologist and physician, H. Selye laid the foundation for a psychophysiological and psychological study of stress, connecting it, first of all, with such personality traits as *egoism* and *altruism*. Apparently, being influenced by the works of C. Jung, in particular, the latter's ideas about the introvert and extrovert types of personality, H. Selye proposed to consider such personality traits as *egoism and altruism as important factors for engendering stress*.

The scientist studied these factors not in isolation from each other, but in a dialectical relationship, which was expressed in his original philosophical and psychological ideas about *egoistic altruism* and *altruistic egoism*. In this context, his actually psychophysiological doctrine of stress takes on a broader interpretation as an important factor in life, as evidenced by the title of one of his books, “*Stress of Life*” [7].

The work of H. Selye laid, and we emphasize this, the beginning of numerous psychological, primarily psychophysiological, studies of the problems of stress. The authors of these lines also made modest contribution to the psychophysiological study of stress, when, during several thousand consultations with clients, we clearly revealed its connection with temperament.

Following the doctrine of the temperament of Hippocrates and the later ideas of I.P. Pavlov concerning the phenomenon of temperament, a Ukrainian scientist B.I. Tsukanov came to distinguish five types of temperament, adding to choleric, sanguine, melancholic and phlegmatic types one more type – *the equilibrium one*. Let us explain this describing the objective methodology of B.I. Tsukanov for the definition of “ $\tau$ -type” as a quantitative indicator of temperament [8].

In the course of original theoretical and experimental research, Professor B.I. Tsukanov established a fundamental fact due to using the technique of reproducing time intervals of short duration (several seconds) in the auditory, kinesthetic and visual analyzers: the representatives of different types of

temperament are characterized by natural "errors", that is, by deviations in the "accuracy" of reproduction of specified time intervals.

Although the very technique of reproducing time intervals has been known for almost a century and a half, only B.I. Tsukanov was able to prove the correlation between the error in reproducing the duration of time intervals and the type of temperament.

Thus, a scientifically substantiated objective method for determining the type of temperament appeared when every psychologist can master it following certain rules.

To do this, one must have a mechanical sports stopwatch (an electronic stopwatch is not suitable for this purpose) and learn how to accurately measure time intervals from 1 to 5 seconds.

The testing procedure consists in the fact that the researcher alternately presents in random order intervals of 1, 2, 3, 4, 5 seconds, while the client (the technique can be used to determine the type of temperament already in children from 4-6 years old, when they can hold a stopwatch in hand and press its start and stop button) must each time memorize the duration of the corresponding time interval, being set by the psychologist by clicking the stopwatch button at the beginning and end of the interval.

All the intervals that are exposed are preliminarily recorded in the protocol, and those that are reproduced are recorded in the protocol against the exposed ones. The psychologist presses the start and stop button of the stopwatch accurately and clearly, without naming the duration of the interval.

Then the psychologist passes the stopwatch to the experimental person and invites him/her, without looking at the dial, to press the button so that the set and memorized interval is recreated between the first and second press. Then the psychologist takes the stopwatch again, writes down the interval subjectively reproduced by the client in the protocol, returns the stopwatch hand to its starting position and presents the next interval.

This procedure is reiterated as many times as the intervals are exposed and reproduced. Having conducted this experiment we propose to carry out the measurements in two series. The first trying series consists of five expositions and reproductions (for example: 4, 2, 5, 3, 1 second).

Due to this procedure the client adapts to the testing conditions and learns to act according to the rules proposed above. The researcher can recommend the client to keep counting in mind and thus more accurately memorize and reproduce the intervals. However, it is possible to work without oral counting, relying on one's internal biological clock for memorizing the intervals.

The second series is scoring (for example: 4, 2, 5, 3, 1, 2, 4, 1, 3, 5 seconds). After alternate exposure and reproducing with recording the data in the protocol, an indicator of the type of temperament, the so-called  $\tau$ -type, is calculated.

For this, the sum of the intervals presented by the psychologist ( $\Sigma T_p$ ) and the sum of the intervals reproduced by the client ( $\Sigma T_c$ ) are determined. After that, the second amount is divided by the first and the tau-type of the person is obtained. This is one of the protocols of the mentioned experiment.

<i>Trial series</i>					<i>Scoring series</i>											
№	1	2	3	4	5	1	2	3	4	5	6	7	8	9	10	
Tp	4	2	5	3	1	4	2	5	3	1	2	4	1	3	5	ΣTp = 30 sec
Tc	3,1	2,9	3,9	2,4	0,9	2,4	2,0	6,1	3,2	1,1	1,9	2,8	1,2	2,7	6,1	ΣTc = 29,5 sec

Figure 1. The fragment of experimental protocol, where the calculation of tau-type, is made according to the formula:  $\tau\text{-type} = \sum Tc / \sum Tp = 29,5 / 30,0 = 0,98$  sec

So, in this example, the client's tau-type is 0.98 sec. What this means will become clear if you find the place of the value 0.98 sec. in the range of tau-types in fig. 2 showing that the client has a melancholoid type of temperament.

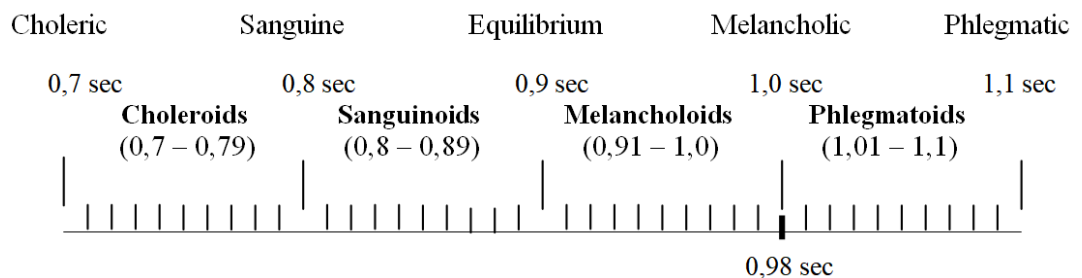


Figure 2. The place of calculated tau-type 0.98 sec (melancholoid) in the range of tau-types in the human population according to the method of B.I. Tsukanov.

In the course of a thorough study of the results of the experiments with many thousands of clients B.I. Tsukanov found that "pure" choleric people "hurry" and reproduce time intervals ahead of time, their tau-type is 0.7 sec. "Pure" sanguine people are also "in a hurry", but in a less extent, their tau-type reaches 0.8 sec. "Pure" melancholic people reproduce time intervals most accurately, their tau-type is 1.0 sec. "Pure" phlegmatic people are "late" – their tau-type is the largest – 1.1 sec. The researcher also discovered the fifth, medium type of temperament and called it *equilibrium* (balanced) – its tau-type is 0.9 sec.

It was found that in the human population, tau-types of the representatives of "pure" and "transitional" types of temperament are distributed along the scale of tau-types between 0.7 seconds and 1.1 seconds evenly. When measuring the tau-type, it is also important to take into account the measuring of the accuracy of reproduction of the intervals by the clients or the quality of the course of their "biological clock". For this, the calculation of the standard deviation is used according to the formula:

$$\sigma = \sqrt{\sum (XTci - XTpi)^2 / N}$$

where XTci are the values of 10 subjectively reproducible intervals from the Tp series of the testing protocols, XTpi are the values of 10 objectively exposed

intervals, and N is the number of measurements ( $N = 10$ ). For a given client  $\sigma = 0.081$  sec. That is, the client possesses a clock with medium accuracy in measuring time.

B.I. Tsukanov's method is almost the only one in experimental psychology enabling the objective measuring and quantitative determining the type of a person's temperament and some qualities of a person stemming from it, for example the level of giftedness. This objective method has undeniable advantages over subjective methods (such as the questionnaires) determining not only the type of temperament but also other personality qualities, for example, the characterological qualities, which are formed in the process of upbringing and self-education and are systematically "built up" over temperament that is innate, unchanging basic personality characteristic. Therefore, the determination of the type of temperament according to questionnaires cannot be considered completely correct.

However, as with any method, there is a problem of measurement accuracy in B.I. Tsukanov's test. The latter can be controlled by the standard deviation  $\sigma$  or by the coefficient of variation  $K_v = \sigma / \tau \times 100\%$ .

Our experience in applying this method indicates that there are clients (about 10% of them) who systematically demonstrate a large measurement error. Our counseling practice (in total, about 4000 clients were surveyed) indicates that each type of temperament corresponds to its own temperamental type of stress, for example:

a) choleroïd stress, which is the result of unorganized, impulsive, often spontaneous actions of choleroïds (there are 14% of them in human population);

b) sanguine stress, often associated with the unrealized ambitions of strong, energetic sanguinoids (they are most in the population – 44%);

c) equilibrium stress being the result of the action of multidirectional psychodynamic tendencies, as if tearing a personality apart (there are only 4% of the total population);

d) melanchoid stress, which manifests itself in anxiety, in intense struggle with the stressor thus depleting the weak nervous system of the melancholic (melanchoids represent 29% of the population);

e) phlegmatoid stress of time pressure, delay, which is usually accompanied by a slow and inert phlegmatoids (there are only 9% of them in the population).

It is clear that this classification of stresses turns out, with a competent approach, useful for psycho-consultative, psychocorrectional work with clients, however, provided that their temperament is not determined by questionnaires (they mostly focus on patient's character, not temperament), but by B.I. Tsukanov's objective methodology [5].

It is worth giving percentage that indicates the quantitative framework for a stable quantitative distribution of temperament types in human population, which was calculated, at our request, by B.I. Tsukanov himself when he analyzed his large sample of clients. This percentage indicates a peculiar disproportionate nature of the interaction of temperamental groups among themselves in the general sample. For example, 14% of fast choleroïds are opposed to 86% of the



representatives with slower temperament types and, conversely, 9% of slow phlegmatoids are opposed to 91% of the representatives with faster temperament types. This fact, which escapes a general analysis of the problem of temperament, actually leads to differentiating a special lifelong psychodynamic, speed and energy stress, and in some cases distress, having destructive and pathological consequences. Moreover, during the consultative work, we noticed contradictions, conflicts, real “wars” between the representatives of different types of temperament resulting in psychodynamic deviations and diseases.

At the same time, the established by B.I. Tsukanov correlation between the type of temperament with so-called preferred diseases for each type of temperament was confirmed by our psychotherapeutic work, since we also found in our practical work that temperamentally determined types of stress really cause, with their high intensity and long-term effect, regular painful manifestations and even clinical forms of diseases, being the most likely and “preferred” by the representatives of each type of temperament.

We are talking about specific situations in life when, over the course of many years, temperamentally induced stresses statistically exceed their normal course and manifest as distresses and eustresses. This occurs in situations of so-called psychodynamic incongruence (i.e., discrepancies between the naturally prescribed and socially required dynamic parameters of life or the psychodynamic imbalance between different temperamental groups), which leads to the accumulation of destructive and pathological effects and the emergence of painful manifestations and diseases proper.

We only mention here such an example of the manifestation of psychodynamic stress, when slow phlegmatoids are forced to move at a discomfortable pace for them by more dynamic, faster majority, which exceeds their natural speed capabilities by one and a half to two times. Then there are the inherent disorders of the gastrointestinal sphere of the organism inherent in phlegmatoids, since they do not have time to provide their natural metabolism with an ultra-fast, socially leveled mode of life [5].

And, conversely, the choleroïd, high-speed and impulsive part of the population (14%) is opposed by the slower and quieter part (86%) of the population, which causes discomfort in choleroïds connected with inhibition, repression of their psychodynamics leading to dysfunctional, pathologic effect being manifested in such preference diseases as cholecystitis and hepatitis.

The representatives of the equilibrium type of temperament (4%) occupy the middle stratum of the population, as if between its two opposite psychodynamic parts – a slower (38%) and faster (58%) ones which, in some unfavorable cases, leads to the preferred development of pulmonary and renal abnormalities and diseases.

In the course of providing qualified psychotherapeutic assistance, consisting in reducing the level of psychodynamic incongruence, it is possible to significantly reduce or even remove the pathological effect of the types of distress described above.

By large, speaking about all types of temperament, one can note such preferred diseases and the symptoms preceding them in conditions of psychodynamic incongruity, as:

- a) possible cholecystitis and hepatitis in cholerooids;
- b) myocardial infarction in sanguinoids (approximately half of their total number);
- c) diseases of the lungs and kidneys in representatives of the equilibrium type;
- d) angina pectoris and hypertension in melancholoids;
- e) probable gastrointestinal upsets and diseases, even gastric ulcer in phlegmatoids.

It turned out that during the psychological consultations based on the appropriate technology of work, it was possible to give pertinent pieces of advice that really reduce painful manifestations or even lead to client's recovery. This work is all the more successful when the age of the clients is young, when painful conditions are still largely reversible, whereas at a later age, such manifestations are most often irreversible.

In the context of pandemic the representatives with an equilibrium type of temperament should be especially distinguished, which, according to B.I. Tsukanov, are characterized by pulmonary and renal diseases as preferred diseases. There are 4% of such representatives in the population. *In the light of statistics on coronavirus disease in a pandemic, they can be considered as a high-risk group.* According to our assumption, it is this group that can make up the core of 10-15% of the population who actually undergo the coronavirus threat. If so, then this risk group can be preliminary determined by using created by us computerized method for determining the type of temperament [5; 8].

This conclusion requires all-round experimental verification, just like the fact reflected in current media reports that among the blood types, the coronavirus prefers the second blood group.

Our experience also indicates the presence, along with distress and eustress, of another type of pathogenic stress, which is conventionally called frustress. The latter is associated not only with the intensity, duration of influence, and modality of the stressor, but also with the reaction of the individual to this stressor.

After all, this reaction in a person takes the form not of a simple physiological response, but of a complex, holistic activity of the organism counteracting the stressor, revealing the phenomenon of functional systems discovered by P.K. Anokhin [1].

In this contest let us mention the fact that according to H. Selye, one of the symptoms of the adaptation syndrome is directly associated with a decrease in productivity of a person. We can clarify this position of the scientist and suggest that there are situations when stress intensifies so much and takes on such a special form (depending on the adequacy or inadequacy of person's activity) when this activity breaks down under the influence of the insuperability of the distressor causing frustration. And this frustration, in turn, intensifies itself due to the impossibility of the individual to achieve the set goal. Frustress is generated in this

case not only by the real evidence of such non-implementation of activity, but also by the person's awareness of various threats to this [9].

For better understanding of these processes, it is advisable to refer to the *concept of psychological activity*. It can be described briefly as including five components: *motive (meaning) – subject – goal – method* (operational means for obtaining an ideal result) – *emotive* (person's emotional-sensory reaction of satisfaction from receiving certain positive result, or dissatisfaction, discontent, actually frustration when it is not received).

**Discussion.** In the context of these ideas, psychologists who encounter distresses and eustresses often have to work with frustresses when they try to restore, reconstruct, or optimize the psychological activity of a personality under the influence of a destructive stressor.

By large, it can be stated that *the main thing in this psychological work lies in the harmonization of interaction, the restoration of the correspondence of functional relationships (being destroyed due to frustration) between the components of psychological activity, such as motive-subject-goal-method – emotivity (emotional satisfaction or refusal of activity, which is actually manifested in frustration)*.

In simpler terms, this process reflects establishing adequate correspondences, first of all, between goals and means in the course of achieving the desired result. That is, for guaranteed achieving the required goals, one must use an objective and adequate goals. And vice versa: adequate means must correspond to the goals. Their mismatch leads to failure in achieving the required goals, which is reflected by the human 'I' and is perceived by the personality as a new threat with ensuing new emotional tension and growing in a spiral way frustress.

*The mentioned data and the conclusions stemming from them directly refer to the conditions of the lockout, when in the course of isolation there is a deformation of many types of professional and social activities.*

Thus, we can distinguish such three types of stress associated with the historical unfolding of specialists' working with them: the physiological, psychophysiological and psychological stress.

The specialists have significantly expanded the researches on the problem of stress. This is evidenced by some classification of the types of stress: pedagogical stress (for example, examination, assessment expectations, etc.); military (combat) stress; aviation (space) stress; criminal stress; economic stress (associated, for example, with bankruptcy or unemployment); retirement stress; family stress (concerning quarrels and divorce of spouses); conflict stress; stress of acute contradictions and life experiences (grief, despair, loneliness, fear of illness or death, etc.); social, political stress (radical social transformations and revolutions); stress of senior executives; stress of unexpected changes (novelty); tourist stress (the surprise of meeting new places); aesthetic stress (connected with perceiving bright works of art); intercultural stress and, finally, *coronavirus and lockdown stress* in the current situation.

Psychologists can add the following types of stress to this classification, considering the personality structure and its components: spiritual (moral) stress;

psychosocial stress; motivational (life meaning) stress associated with the struggle of motives; characterological stress caused by opposite personality traits within a human being; stress of competence and amateurism; reflective stress; intellectual stress, determined by inadequate perception of reality, the contradictions of problem situations revealed by thinking process and cognitive dissonance; psychophysiological stress (discussed above); psychosomatic stress; psychogenetic stress (for example, between congenital and acquired forms of behavior, that is, between instincts, knowledge, skills, habits); activity stress associated with the absence or destruction of organized activity or incompleteness of activity; stress of inadequate development or lack of developed forms of personality behavior in solving complex problems, etc.

In this regard, quite understandable are offered by various psychologists the psychological theories and practices for overcoming stress consisting in compensating for the negative consequences of intense and chronic stress. An example of such psychological work with stress is the “*Questionnaire for stress processing*” proposed by German scientists [6]. It contains such scales as: a decrease in the importance of a stressor; response through comparison with other types of stress; admission of one's own guilt; removal from the situation; activating the replacing needs; maintaining self-esteem; an attempt to control the situation and reaction to it; positive self-instruction; need for social support; a tendency to eliminate stressful situations; avoidance of stress, escape from the situation; social isolation; mentally going over the situation; decrease in one's own activity; self-pity; self-incrimination; aggression; pharmacology.

At the same time, psychological theories and practices of working with stress are revealing a tendency to ontologize stress problems, taking into consideration scientific data on the nature of stress in the everyday context of human existence.

According to our psychotherapeutic practice the considered data on the psychological work of a personality with distress, eustress, frustrate can be useful in lockdown and pandemic counteraction thus restoring normal life.

Our experience has also revealed the necessity to use a lockdown lifestyle of an individual and society as an incentive for rational sanogenic restructuring the human consciousness, one's everyday life and professional activity, solidarity civic behavior, when the transformation of the minuses and inconveniences of the lockdown into pluses of health promotion and life progress takes place. For the formation of the lockdown lifestyle, it is important for everyone to become a full-fledged subject of self-protective actions, promptly using scientific data on the nature of the pandemic that appears online.

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## **КОРЕЛЯЦІЯ МІЖ ТИПАМИ ТЕМПЕРАМЕНТУ ЛЮДИНИ ТА СОМАТИЧНИМИ ЗАХВОРЮВАННЯМИ, В ТОМУ ЧИСЛІ КОРОНАВІРУСНОЮ ХВОРОБОЮ**

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**Анотація.** Дослідження присвячено психологічним питанням оптимізації поведінки особистості та суспільства в умовах пандемії коронавірусу. Мета дослідження – окреслити психологічні інструменти подолання особистісного дистресу на основі даних про співвідношення типів темпераменту людини з типами стресу та соматичних захворювань, у тому числі коронавірусної хвороби. Завданнями дослідження, що впливають з його мети, є: подати об'єктивний метод встановлення типів темпераменту людини; з'ясування співвідношення між типами темпераменту людини та типами темпераменту стресу та соматичних захворювань, у тому числі коронавірусної хвороби, завдяки багатому досвіду психотерапевтичної діяльності авторів; припущення щодо найбільш ймовірної уразливої групи високого ризику захворювання на коронавірусну хворобу в умовах пандемії; окреслення деяких важливих підходів психологічного консультування та психотерапевтичної роботи з клієнтами в умовах пандемії коронавірусу.

Методологічні основи дослідження пов'язані з науковими концепціями, психологічними, психотерапевтичними та медичними уявленнями про природу стресу/дистресу та способи подолання їх негативних наслідків. Учасниками експериментальної роботи є близько 4000 клієнтів, які брали участь у психологічному консультуванні та психотерапевтичній діяльності авторів. Використовуються методи об'єктивного комп'ютерного

*визначення типів темпераменту людини, а також методи психологічного консультування.*

*Показано, що існує п'ять типів стресу, які відповідають п'яти типам темпераменту людини. П'ятий тип називається рівноважним, оскільки він знаходиться між холероїдами і сангвіноїдами, з одного боку, і меланхолідами і флегматоїдами, з іншого. Таким чином, психотерапевтична робота з людьми з подолання стресу повинна проводитися з урахуванням їх темпераменту. Експериментальні дані дозволяють зробити припущення про такі переважні захворювання та симптоми, що випливають із умов психодинамічної неконгруентності людини, як: а) можливий холецистит, гепатит у холеїдів; б) інфаркт міокарда у сангвіноїдів (близько половини їх загальної кількості); в) захворювання легень і проблеми з нирками у представників врівноваженого типу; г) стенокардія та гіпертонія у меланхолідів; д) можливі шлунково-кишкові розлади та захворювання, навіть виразка шлунка у флегматоїдів. Для представників врівноваженого типу темпераменту в якості переважних захворювань характерні захворювання легень і нирок. У всій популяції таких представників 4%. У світлі статистичних даних щодо захворювання на коронавірус в умовах пандемії їх можна віднести до групи високого ризику. Саме ця група може становити ядро 10-15% населення, яке реально відкрито до загрози коронавірусу.*

**Ключові слова:** *коронавірусна хвороба; подолання дистресу особистості; темперамент людини; темпераментні типи стресів і соматичних захворювань; групи високого ризику захворювання на коронавірус.*