

PROBLEMS OF MENTAL REGULATION OF PERSONAL BEHAVIOR PATTERNS IN STRESSFUL CONDITIONS

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In this article, problems of mental regulation of personal behavior patterns in stressful conditions are discussed. The great meaning of individual, personal reactions to stressful situations is shown, that is defined by steady typological personal characteristics. People's emotional reactivity in stressful conditions causes negative changes in their psychic status. Stressed extraverts experience greater effects of inhibitory processes that are of higher speed of development and lower speed of normalization in comparison with introverts. It is shown, that different stressogenic influences on the human organism cause a complex hierarchy of mental processes that mediate the influence of stress situations. Notwithstanding the similarity of physiological expression of the influence of some kinds of stress on the organism, the range of behavior characteristics of individuals is of much greater variety.

That is why it is especially important to form a person's constructive behavior in a stressful situation, to reduce the harmful influence of stress agents on various organs, systems of the body and the psyche in general (that is, to reduce the price of adaptation of an organism to stress).

Key Words: stress, anxiety, need, quantum behavior, psychic regulation, personality, behavior patterns, stressogenic conditions.

Many examples of wholesome effects of stress on the body and the efficiency of a person are known. So cold stress may have a restorative influence on all types of psychic and physical status of the body. In the conditions of various kinds of creative activities and sport competitions, a person experiences the condition of emotional stress, that is caused by active motivation and preparation to the oncoming activity [1, 2, 3, 4]. Under the influence of a stressor, the threshold of pain becomes considerably higher, which points to the anesthetic character of a number of stressors due to the secretion of opioid peptides (endorphins, enkephalins).

The importance of individual, personal reactions of a person to stressful events is great; these reactions are conditioned by typological characteristics of a person. It is known that emotional reactivity of people in extremal situations causes negative changes in the psychic status. Extraverts experience greater effects of inhibitory processes that are of higher speed of development and lower speed of normalization in comparison with introverts [1, 7].

Studying of mental regulation of personal behavior patterns in extremal situations consists in learning the typology of a personality with the character traits that manifest themselves in the adaptation process, in the interconnections of the personality character profile and the processes of regulation of particular behaviors, etc.

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Psychic and physiological mechanisms making for appearance and development of psychological stresses, are caused by the peculiarities of the systems of the individual organization of the neuridynamic brain system, personal psychic and physiological categories, and levels of the non-specific adaptation field, elements of which are found in the brain tissue.

When we study the influence of this or that personality trait on the stress, anxiety is of greatest importance.

For very anxious people a lower level of stress is enough for a definite stress reaction. People with low anxiety are usually calm, that is why they need higher levels of stress for a definite stress reaction.

Personal anxiety is associated with the factors causing cardiac infarction, and situational anxiety is associated with a person's readiness to think about his/her serious illness [11, 13].

Psychic adaptation is directed at overcoming the stressogenic situation. This overcoming (or overcoming behavior) includes complex interconnected cognitive and emotional mechanisms, that make for planning purposeful efforts, oriented at managing the persistent stressogenic situation [9, 10].

Most aspects of discussion of emotional stress are integrated by the functional systems theory, developed by P.K. Anokhin, in which every functional system of the body is a self-regulated structure with components that serve achieving results that are useful to the system and the body in general. The central architectonics of behavior acts that are needed to satisfy the needs of an organism, includes such key stages, as afferent synthesis, decision making, forecasting suitable activity results (acceptors of activity results), a complex of actions aimed at achieving goals and result evaluation with the help of reverse afferentation (feedback systems) [14].

The theory of functional systems tells us that a person's behavior at a given period of time defines the leading functional systems determined by the person's vital and social needs. Emotional evaluation accompanies each stage that is passed by the central system mechanisms, especially in the processes in which the result that has been achieved is compared with the acceptors of the activity result.

According to this theory, emotional stress is formed in a so-called conflict situation, when subjects are not able to satisfy their dominant biological or social need for a long time.

In this case, emotional stress will mobilize the vitality potential of the body to solve conflict situations and find relevant decisions.

Behavior can constitute an outer link of functional systems, with its activity making for a set of indicators, characterizing the inner force of the organism. But it can also become an independent functional system of behavior levels having its definite results, that are good for the body, and forming special system activity of brain mechanisms.

A continuum of behavior activity, divided into separate sectors (quantums) corresponds to leading needs and their satisfaction.

To each quantum corresponds a task to form an inner need that has been set by the dominant motivation, purposeful active satisfaction of this need, stage results and the final result of the activity and their constant evaluation through reverse afferentation.

As results that are useful for the body are determined by the activity of specific functional systems, each of the “quantums” has its own system organization.

Purposeful activity of system quantums can be based on the basis on biological (metabolic) and social needs of a person.

In preliminary learning, instructing of self-instructing, a behavior quantum can take the whole psychic activity [11].

The peculiarities of psychic quantums of human behavior are expressed in its character that anticipates events. Defining “quantums” of mental activity creates a basis for abstraction processes. Mechanisms of memory make for it. Development of a behavior “quantum” and accumulation of experience of satisfying needs by the organism are based on it.

In the process of adaptation of a human being to the conditions of the environment an inner stereotype formed in each individual organism (alternating at definite time intervals rhythmic or non-rhythmic processes, interrelating on all levels of functioning of a body) plays an important role. It is disturbance of these mechanisms under the influence of different stressing stimuli that leads to forming negative emotional stress, followed by various functional shifts (disfunctions) in the organism.

It is practically impossible to define universal psychological stresses and situations that cause stress in all individuals regardless their psychic and physiological differences that determine the specificity of perceiving and evaluating the situation and the individual's anxiety [15, 16, 17].

Anxiety is sometimes viewed as a form of adaptation of an organism to the conditions of acute or chronic stress.

Appearance of anxiety enhances behavior activity, changes the character of behavior or the starting of intrapsychic adaptation mechanisms.

At the same time, reduction of the intensity of anxiety is perceived as sufficiency and adequacy of the pursued behavior tactics, and it corresponds to mending of a previous adaptation disturbance. Not only does anxiety stimulate activity, creating more intensive and purposeful efforts, it destroys behavior stereotypes that are not adaptive enough, and replaces them by more adequate forms of behavior.

If intensity and duration of anxiety is not adequate to the situation, it can prevent adaptive behavior and disturb behavior integration. Feeling of inner stresses influence the intensification and modification of activity, they include mechanisms of intrapsychic adaptation. Then disturbances of behavior integration may be absent.

People with intrapsychic adaptation are characterized mainly by mechanisms of anxiety fixation in situations of disturbances of the balance “man – environment”, they try to keep all the details of a situation under control. In the process of forecasting various changes of the situation, they try to foresee the most unbelievable side effects and explain the appearing difficulties, thinking that they have not behaved providently, that they have not planned their behavior to meet the least number of failures because of their mistakes [5, 18, 19].

It is due to the processes of reduction of disorganizing influence of anxiety, and the processes of forming of compensation and limitation patterns, that effective adaptation takes place. Effective adaptation is provided by creation of a definite behavior stereotype, elaboration of a system of principles and rules, that can free a person from the necessity to make a decision in each separate situation (because a system of rules helps to choose behavior strategies)/ All this reduces the possibility of development of intrapsychic conflicts.

We agree with the authors [2, 3, 8] who think that a considerable stress is a reflection of the person’s attitude to it. Human body itself perceives the importance of this or that stressor, the degree of intensity of harmful agents or stimuli, and it causes this or that degree of manifestation of adaptive reactions. Subjective overestimation of possible harm and underestimation of one’s own potential make for amplification of the intensity of influence of stress factors. The degree of manifestation of a physiological functional shift is directly influenced by the cognitive socio-psychological competence of a subject.

Cognitive theory of stress [6, 11, 12, 20] especially accentuates two cognitive factors: evaluation and overcoming (cupping) the stress. It is overcoming that needs behavior efforts to satisfy inner and outer needs, including exit from stress situations.

The beginning of stress coincides with feeling of definite physical or psychic danger, and the person cannot effectively react to it. It is necessary to change the meaning of importance of such events to levels at which the danger will not be perceived, or neutralize it. Accumulating and using the experience of cupping of a definite extremal event leads to resultative expectations (being sure in the efficiency of one’s actions) [21]. A person with a low self-efficacy defines a situation as one that cannot be managed (i.e. a stressful one).

All stressogenic situations cause processes of evaluation, coordination and management in people’s interactions with the stressor. Coordination and management develop until the moment when a stress control system is set with the help of cupping influence or a spontaneous ending of stress.

Many factors influence evaluation of events as stressogenic ones (uncertainty of the situation, connected with lack of information to analyze it, the degree of importance of the events) that reflect the safety of being and the necessity of achieving ultimate results.

The most effective ways that make for relieving conditions of excessive stress, are understanding the degree of personal responsibility for adequate behavior, avoiding or reducing the influence of stressors, and, of course, changing one's point of view on them.

Changing the point of view on stressors begins with understanding their essence. Successful identification of stressors leads to active steps aimed at avoiding, reducing or modifying a stress situation.

Developing modifications of behavior stereotypes will help a person to reduce the degrees of the influence of stressing stimuli, before they cause a person's stress reaction. With this aim, we can change the character of eating behavior, improve one's schedule, learn to express one's emotions adequately and mindfully avoid stressors, that cannot (or can hardly) be modified.

With the help of psychotherapy we can influence a personality and make him/her less vulnerable to a stressor. Stress experienced by a person to a great extent influences the organism depending on the way of interpreting the environment: senses, attitudes and the sphere of values.

Due to psychotherapy, it is possible to change personality structure, and the person will become less likely to initiate and reproduce excessive activation. A person's hostility and suspiciousness can decrease, his/her self-esteem can increase, skills of decision-making can develop. Such changes of a personality reduce the tendency to see others as stress initiators. Psychic and physiological arousal can recur because of an "inner conflict" of a person. Its solving must be directed at a behavior shift in the direction of a greater independence of a person and strengthening feeling of responsibility for oneself.

A complex form of behavior response to reflex and emotional stress are defined the inner condition of an organism (psychic readiness, sensory readiness) and the environment (the nature and intensity of the stressors).

Various combinations of the inner condition and the environment create many variable non-specific reflex responses to the same nature of a stressor. The basis for producing such an innate form of behavior can be recognized in "irregular motivational systems" [2].

The peculiarities of manifestations of this response are interconnected with the possibility of the organism to resist potentially harmful influences. In the conditions of repeated action of stressors in the adaptation process, fear and the intensity of response reaction weaken.

The essence of psychological stress is reacting to specific interrelations between a person and the environment. These reactions are largely determined by cognitive processes, way of thinking and evaluation of appearing situations, knowledge of one's own possibilities, degree of proficiency in self-management and choosing behavior strategies in an extreme situation.

All this permits us to say that under different stressogenic influences on a human organism, a complex hierarchy of psychic processes is set in motion, to mediate the influence of a stressful situation. Notwithstanding the similarity of physiological phenomena under the action of different kinds of stress on the organism, the range of behavior peculiarities of individual people is much more variable. That is why we think that it is especially important to form a person's constructive behavior in a stress situation, to reduce the harmful action of stress agents on different organs, systems of the organism, and the psyche in general (that is, to make the "price of adaptation to stress" lower).

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