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ORIGINAL ARTICLE

PREVENTING THE PRE-SICK CONDITIONS OF THOSE WHO PRACTICE LIFELONG LEARNING

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ABSTRACT

The aim: Disclosure of the results of the study of the expediency of considering the fluidity of mental processes in the triad "organism – personality – environment" and the alternate stages of the dynamics of performance to prevent the occurrence of pre-painful conditions in students, combining professional activity with formal education.

Materials and methods: The complex of research methods is used in the work: general scientific (analysis, synthesis, comparison, systematization, generalization) and empirical (observations, discussions, questionnaires). The research was carried out within the framework of the international project "AHIA" (innovation in education; access mode: <https://sites.google.com/view/project-axia/>). The Spielberger-Hanin questionnaire was used to achieve the stated purpose of the study, the purpose of which was to assess reactive and personal anxiety.

Results: The results of a study aimed at organizing a lifelong learning process based on mental processes and stages of performance dynamics showed that the likelihood of pre-painful conditions in those who combine full-time education in higher education with professional activity significantly decreases their self-actualization. Educational events taking place here and now, and recognizing the theoretical and practical significance of the educational material at the level of intrinsic motives.

It is established that the likelihood of pre-morbid conditions in those who learn during life significantly increases in the case of reduced functional reserves of their body as a result of the intense and prolonged performance of educational activities with the simultaneous experience of "negatively" colored actual emotional states, generated by activities or events) experiences of relationships in professional activity, family, family, etc.

Conclusions: The proposed article describes the effectiveness and appropriateness of using mental processes and stages of performance dynamics as a means to prevent the onset of painful conditions in lifelong learners.

KEY WORDS: mental processes, dynamics of performance, stages of performance

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INTRODUCTION

Man is the carrier of the psyche, and his body is the carrier of life. This indivisible whole is not a static formation since a person is constantly in some mental state. According to S. Maksimenko [1], mental states are always, they are different and always change each other, activating certain functional systems of the human body. Thus, the nature of psychological states is a constant dynamic, a movement that, if artificially stopped, immediately becomes another state.

Various interpretations of the phenomenon of "mental state" are given in scientific sources. These include:

- "holistic characterization of mental activity for a certain period of time, which shows the peculiarity of the course of mental processes, depending on the objects and phenomena of reality that are reflected, the previous state and mental properties of the individual" [2, p. 18];
- "the form of existence of individually-unique human psyche" [1, p. 461];
- "a set of mental characteristics that show the level of dynamic parameters of the psyche – emotional, cognitive,

behavioral, which respectively affect the educational (professional) activity and behavior" [3, p. 51].

- According to S. Maksimenko's generalizations [1], state:
- is a pervasive psychic phenomenon that colors all mental activity;
 - is determined not only by the imprint but also by the previous mental state and future;
 - is a true indicator of individuality because it not only broadcasts mental phenomena but also shapes them, in other words, mental states affect other mental phenomena, change, rebuild, rebuild them;
 - generates thought, which means that the mental state, forming based on a certain thought inter-functional system, integrates it with the experience, properties, aspirations of man, and only then the thought becomes the thought of that person.

The peculiarity of mental states is that "the depth of penetration of states is not limited to the psychic sphere alone. A cross-functional system, which integrates one or another state, necessarily "enters" into the field of biology,

and therefore medicine, and thus the mental state seems to “close” the space of human existence “[1, p. 461]. For example, a scientist examines a situation where a person begins to become ill with the flu and develops a so-called pre-sick condition, which covers virtually all areas of the individual. These are the slowing down of cognitive processes, attenuation of interests and cognitive activity, the appearance of sluggishness and increased fatigue. This condition begins with the cellular level of the body, as this level is infected by a virus.

This pre-morbid condition can be caused not only by the interaction of the virus with the cell of the human body but also by the result of performing activities (educational or professional) with a high and prolonged level of tension, which is caused by the need to perform actions in conditions of time and information deficit; a significant amount of work assigned to the work; awareness of the high responsibility for the result of one’s own actions, as this affects, for example, the passing of a test, an exam, obtaining a scholarship, diploma, salary, position, etc.; monotonous or dynamic mental loads; the excitement of being able to do the work at all, in the allotted time, according to requirements that are only partially understood; experiencing negative emotions from interacting with Others (classmates, teachers, colleagues, etc.).

According to the results of scientific researches O. Yeshchenko, V. Kalnysh, V. Yeshchenko [4] in the pre-morbid state a number of complaints characterizing the deterioration of the state of health is formed, which is manifested in increased irritability and unstable mood (in 25% of cases); feelings of depression, weakness (in 20% of cases) and fatigue (in 55% of cases). These factors lead to a decrease in the adaptability of the organism, in particular to a weakening of the respiratory system, a decrease in the resistance of the organism to the effects of adverse environmental factors, and for irritability to disorders in the functioning of the gastrointestinal tract, persistent and long-term decrease in appetite. Also, before the painful condition increases the level of fatigue, which, in turn, causes changes in the indicators of such psychophysiological characteristics as functional mobility, strength, and lability of nervous processes.

THE AIM

The purpose of this work is to substantiate the need for organizing a lifelong learning process with the observance of symmetry in the triad “organism – personality – environment”, as well as focusing on the types of mental states that are necessary for the emergence of tumors in the structure of personality, without harming the health. those who combine professional activity with formal education.

Hypothesis of the study: the awareness of the person’s mental states as a comprehensive mental phenomenon, showing the level of dynamic parameters of the psyche, namely: emotional, cognitive, behavioural, which, in turn, affect the professional and educational activities of man and his behaviour. The objectives of the study: 1) to

generalize scientific data on the types of representation of mental states; 2) to establish the presence / absence of dependence between traits of a person’s character and his / her long experience in certain mental states; 3) to analyse the stages of human performance with the emphasis on the dynamics of emotional, cognitive and behavioural parameters of the psyche; 4) summarize the results of the survey of the respondents regarding the factors that cause the manifestation of “negatively” colored actual emotional states; 5) to formulate conclusions about the peculiarities of organizing the process of human learning throughout life in the context of preventing the occurrence of pre-morbid conditions.

MATERIALS AND METHODS

The complex of methods is used in the work: general scientific (theoretical analysis, synthesis, comparison, systematization, generalization) and empirical (observations, interviews, questionnaires). The survey involved 527 respondents combining full-time higher education with a professional background.

RESULTS AND DISCUSSION

We emphasize on the achievements of scientists who, in our opinion, are important for formulating conclusions about the possibility of preventing the occurrence of pre-morbid conditions during lifelong learning. During the study of scientific sources, it was found that various scientists have joined the attempt to classify mental states, while formulating their generalizations. Thus, M. Levitov [2] singled out: 1) states of personality (in which, first of all, individual features of a person are expressed) and situational (features of situations that often cause a person uncharacteristic reactions to it); 2) states are deeper (for example, passion) and more superficial (such as mood); 3) states that have a positive effect on humans (in particular, inspiration) and states that negatively affect them (eg, apathy); 4) the states are short-lived (from a few minutes) and long (from days to several days); 5) states that are less aware (such as diffusion) and states that are more conscious (such as determination; fatigue; it may have different degrees of awareness).

L. Kulikov [5] classified mental states into short-term and long-term by temporal parameter and by emotional, activation, tonic, and tensile by leading parameter. In turn, the scientist ordered the emotional states according to the modality of the corresponding emotions, the activation states – by the level of motivation and completeness of inclusion in the situation, tonic states – by the level of the general tone of the organism related to human health, and tense states – by the degree mental and psychophysical tension of the body.

M. Korolchuk, V. Krainiuk, V. Marchenko [3] divided mental states into simple (depression, joy) and complex (adaptability, monotony, fatigue), and also formed couples based on a corresponding combination of positive mental states with negative, as- here, confidence is uncertainty;

cheerfulness – irritability; exaltation – depression; calm – affect; exaltation – stress; readiness for action is a psychological shock.

In the work of K.-G. Jung is talking about a chronic condition. According to the psychologist, if in some way the condition becomes chronic, the consequence of this is the emergence of a type, that is, a habitual setting in which one mechanism is constantly dominant, although it cannot completely suppress the other, since it necessarily belongs to the mental activity of life. [6, p. 123].

In the context of the occurrence of pre-morbid conditions during lifelong learning, the attention of scientists to the process of finding a person in one or another chronic condition, which in this case correlates with the long-term state, draws attention. According to S. Maksimenko, any trait (whatever the sphere of the mental it is related to) is in one way or another an embodiment of the habitual and lasting condition of a person. The scientist also analyzes the feedback, which is manifested in the fact that character traits and personality traits largely determine what states and how a person will experience. According to S. Maksimenko [1], it makes sense to speak about a person's inclination to certain states, about the individual internal picture of the flow of ETS states, as well as about the mediation of the mechanism of formation of new personal structures by the mental processes. Dynamic phenomena of the inner world of the individual, and above all, different types of intentions (the orientation of consciousness, to thinking on any subject), tend to be embodied (objectified) in the purpose, actions of the individual, and then in its properties. The generated state, as the embodiment of the personality orientation, forms a cross-functional system, and only after that “embodiment proceeds in this way. In this case, the mental state controls the whole process, and this control is relevant, that is, corresponding to this individuality.

According to O. Prokhorov [7], the dynamics of correlation of mental states and mental neoplasms of personality are significant. For its disclosure, the scientist distinguishes two types of states: the state of equilibrium and the state of disequilibrium. The reference points are the states of relative equilibrium (states of average or optimal mental activity), which may include states of rest, empathy, focus, mental adaptation, interest, etc. Conditions associated with the increased mental activity (joy, delight, anxiety, etc.), as well as states of reduced mental activity (delirium, depression, fatigue, sadness, etc.), which are characterized by a correspondingly higher or lower level of activity, attributed to scientists states of disequilibrium. These states occur when symmetry is violated in the triad “organism - personality - environment” [8, p. 84]. A new functional system (state) is formed, which is characterized by certain stress and uncomfortable experiences. Having a certain excess of energy, a new (asymmetric) cross-functional system generates an orientation of consciousness, thinking of a person on any object (in other words intentions), causes peculiar actions and actions, and, in the end, leads to the emergence of new tumours of personality. An important

feature of the state of disequilibrium is to be a link in the process of the emergence of mental tumours, and an important function of these states is “the conditioning of the process of emergence of tumours in the structure of personal properties” [7, p. 86].

The scientist notes that the deeper and more acute is the state of disequilibrium, the more active the process of emergence of tumours is, the more deep and essential structures the personality manifests. The progressive solution of the subject of the tense situation involves integrative processes of personality and self-development. That is, due to special activity and behaviour, new structures are formed from the mental state of the person.

Determinants of imbalance states may be “passion, the significance of the situation, the allocation of the most essential circumstance in it, the factor that brings the most disorganizing beginning” [7, p. 89], as well as “a regular change in the stages of age development, age crises, development of the disease, the possibility of deployment along with the progressive and regressive path of solution-embodiment of states of imbalance” [1, p. 463].

In the context of this article, the regressive unfolding of disequilibrium states is regarded as a highly probable marker of the emergence of pre-morbid states, which in turn cause psychophysiological peculiarities of changes in performance, growing sense of fatigue, development of fatigue, as a result of intense or prolonged activity, lead to deterioration of quantitative and qualitative indicators of work, accompanied by a decrease in functional reserves of the body, as well as characterized by discoordination of physiological functions and increased physiological cost of work” [8, p. 270]), chronic fatigue (“a set of stable morpho-functional changes that slowly accumulate in the human body over a long period (months, years) the result of her work and are characterized by the gradual exhaustion of functional reserves and the presence of stable systemic and non-specific innately of mental and physiological shifts) [8, p. 270]) and appear to tend to change health.

It is advisable to consider the unfolding of the equilibrium states in the context of the dynamics of labour, which, per the studies of F. Kosmolinsky and E. Derevyanka [9], reflects the relationship between the functions of the organism, labour productivity and the development of fatigue against the background of emotional and volitional stress considering maximum capacity of the body. In turn, the productivity of the lifelong learning process is determined by the maximum capacity of the organism to effectively combine work with educational work, emotional and volitional tension and depends on the individual characteristics of the human body, its attitude to labour and educational work, a sense of responsibility and conditions of exercise learning activities and their combination to implement a lifelong learning process.

Performance dynamics are observed for events of varying duration, including short-term (one work and (or) school day) and long-term (semester, school year, contract term) and includes five stages (entry into work, relative to became able to work, lost working capacity as a norm of working

capacity, gradual decrease in working capacity, ultimate impulse) [3, p. 177]), which are considered separate functional states.

We analyze the stages of performance dynamics taking into account the process of human learning throughout life, that is, because of the combination of work activity with educational activity in formal education. The preparatory stage is characterized by the state of switching from one activity to another (for example, from professional activity to educational). Although the corresponding actions of the educational activity have not yet begun, the human body, which is included in the organized learning process, is already preparing for mental load, its functional capabilities are mobilized, and the vegetative processes that provide the energy of the organism are enhanced. As a result, working capacity increases even before the beginning of educational work. This is how scientists describe this stage [9; 10; 11], however, the analysis of empirical data showed that at the preparatory stage, students will experience the manifestation of “negatively colored” actual emotional states caused by various factors, including feeling anxious: unpreparedness to study (seminar, practical, modular) control, etc.) (in 5% of cases); expectations of unwanted emotional distress from future communication with some other participants in the educational process (with certain classmates or (and) teachers) (in 9% of cases); from the content of the educational material, which is subjectively perceived with a high level of psycho-emotional stress (in 16% of cases); professional events (in 25% of cases); dominant mood in the professional community (in 2% of cases) or born based on communication with parents of students (in 7% of cases); attitude towards colleagues, parents of students, members of their family (family) (in 33% of cases); test results of the students’ control work (in 3% of cases).

The stage of entry into the activity, in our case in the educational, is characterized [9; 10; 11] gradual increase in the functional capacity of the organism, improving the productivity of activities with the simultaneous adaptation of the person to the most economical mode of performance. The analysis of empirical data showed that the duration of this stage depends on internal (in 91% of cases) and external motivation of students (in 72% of cases); the intensity of their mental actions (in 78% of cases); the impact of adverse factors on the body (in 63% of cases); increasing feeling of fatigue (in 99% of cases); continuation of the experience of emotional stress caused by previous events in professional activity, family life, social environment (in 14% of cases) and so on.

At the stage of unstable performance as the norm of performance is fixed [9; 10; 11] decrease in the maximum capacity of the body due to the appearance of the first signs of fatigue and its subjective manifestation - fatigue. Labor efficiency remains at the previous level due to the emotional-volitional stress and the use of compensatory mechanisms of the organism, in the case of the motivation of the learner, to cognitive activity in the learning process. According to the empirical data, at this stage, there is a

need to increase the time required to carry out actions in the educational activity (in 78% of cases) and to return to the uncomfortable experiences caused by previous events in professional activity, family life (in 14% of cases).

Stages of gradual decline in performance are inherent [9; 10; 11] the processes of further development of fatigue and the appearance of fatigue. According to empirical data, mistakes are made in 32% of cases when performing even simple tasks.

The final gust stage takes place [9; 10; 11] at the end of the learning activity if the time of its completion is clearly defined. The level of performance increases due to the emotional-volitional stress and the use of physiological reserves of the body. The feeling of fatigue seems to disappear to manifest itself in a more pronounced form upon completion of the educational activity. Instead, the analysis of empirical data showed that the level of performance at the final impulse stage can be significantly reduced for informing learners the task for self-fulfilment, which is defined as difficult (in 45% of cases), voluminous (in 89% cases), uninteresting (in 78% of cases), has no practical significance (in 93% of cases). In this case, the feeling of fatigue is exacerbated by the experience of frustration and depression. Expansion of the state of imbalance becomes regressive since the functional reserves of the body are used not to form mental tumours, but to overcome the information stress caused (in this case) by information overload, and to experience the state of excitement caused by the unmet need for self-affirmation.

According to the purpose of the study, it was established that mental states should be considered as a form of existence of the individual-unique psyche of a person; an all-encompassing psychic phenomenon that colors all of its mental activity; a valid indicator of individuality. It should be borne in mind that mental states are constantly changing, activating at the cellular level different functional systems of the body and nervous processes, different psychophysiological characteristics (functional mobility, strength, lability). The originality of the study is that the prevention of pre-morbid conditions in life-long learners is considered at the level of mental states and stages of performance dynamics. The question of the impact of the results of human mastery on self-management techniques on the progressive/regressive decision-embodiment of imbalance states and the impact of these states on human health remains debatable.

CONCLUSIONS

Based on the analysis of scientific sources, it has been found that mental states, being “a form of existence of an individually-unique human psyche” (according to S. Maximenko), not only show mental phenomenon but also shape, modify, reconstruct and rebuild them. The effect of mental states manifested at the cellular level of the body, is the subject of research in various fields of science, in particular in psychology, biology, medicine, didactics.

Mental states may be states of personality / situational, deeper / more superficial, positive/negative effects on

humans, short-term / long-term, simple/complex, less conscious / more aware, emotional, invigorating, tonic, tense, chronic, pre-morbid also as states of equilibrium (states of rest, empathy, focus, mental adaptation, interest, etc.) and states of imbalance (these states are characterized by higher (joy, delight, anxiety, etc.) or low (depression, fatigue, sadness, etc.) ness.

In states of disequilibrium that arise when symmetry is violated in the triad “organism – personality – environment” (according to O. Prokhorov), a new functional system (state) is formed, characterized by a certain tension and uncomfortable experiences. With a certain excess of energy, a new (asymmetric) cross-functional system generates the orientation of the consciousness (thinking) of a person on any subject, causes certain actions and actions, which in the case of the motivation of the learner, leads to interest in the content of the learning process, and as a consequence. The gradual emergence in the psyche of new personal formations. However, this process does not take place without motivation through the learning process or its content. Under such conditions, it is most likely that pre-morbid conditions may occur that result in a significant decrease in the functional reserves of the human body as a result of the strenuous and prolonged performance of training actions with the simultaneous experience of “negatively” colored actual emotional states, generated by events during the training event this (in our case it is a professional activity), or experiences of events (relationships) that relate to the family etc.

When organizing the process of lifelong learning, one should also consider the dynamics of performance, which is manifested in a successive change of such five stages as 1) getting into work; 2) relatively able to work; 3) inefficiency as a norm of efficiency; 4) gradual decline in performance; 5) ultimate impulse. These stages take place in an educational process of varying lengths, in particular during one training session (lectures, seminars, etc.), as well as during one academic day, one semester, one academic year or a period of study in a higher education institution.

Organization of a lifelong learning process, taking into account the mental processes and stages of the workability dynamics, to prevent the occurrence of pre-morbid conditions in the learners, since the self-realization in the real educational events that take place here and now, their current and meaning, will have significant meaning and significance will generally be consistent with internal motives.

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