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## TO THE PROBLEM OF DIAGNOSTICS PSYCHICAL STATE

The article is devoted to theoretical analysis of psychological category "psychical state" and its diagnostics. The basic directions of research of psychical states of the person in psychological science are defined. Approaches to development of methods of diagnostics of psychical states are generalized. The basic principles of diagnostics of psychical states according to the physiological, psychological and behavioral levels are analyzed. It is generalized that the functional state in diagnostics is considered as a masking factor or, conversely, contributing to the manifestation of individual personality traits. Research paradigms and main ways of diagnostics of psychical states of a person are analyzed. The list of main disadvantages of functional tests as methods of diagnostics of functional states is emphasized. *Key words:* mental state, diagnostics, methods.

Target setting. Psychical state is a temporary, dynamic characteristic of human mental activity. This concept is used in psychology to conditionally distinguish in the psyche of a person about unstable, variable aspects of it. in contrast to such characteristics as a psychic property, which indicates the stability of the manifestations of the psyche, their attachment and repetition. Psychical state is a holistic characteristic of mental activity over a period. It has a beginning and an end, changes over time under the influence of various factors (both external and internal). The psychical state is reflected in the peculiarities of mental processes (perception, memory, attention, etc.). It appears in activity and behavioral responses and includes experiences. Subjective experience of the condition may not fully correspond to the outwardly expressed characteristics. This fact is especially important to take into account in the diagnosis of psychical states, seeking to evaluate their different sides.

Psychical states differ in some relationships. As a result, there is no single universal classification. Therefore, depending on the research or practical problem, as well as the theoretical views of psychologists, there are different reasons for their classification. Thus, ND Levitov suggested dividing them into states pertaining to cognitive activity, emotions, and will (by analogy with the classification of mental processes). In medical psychology, pathological forms of mental states are distinguished and studied. It is possible to distinguish psychical states depending on the activity performed by the individual – play, training, work, sports.

Of particular practical importance is the diagnosis of human conditions in the performance of their work. In the psychology of labor and ergonomics, the term "functional states" is used to refer to the conditions studied and diagnosed there. This emphasizes, first, the attribution of states to the activity of individual organs, physiological systems and the body as a whole, and secondly, indicates that it is a condition of working people (states in the performance of activities). The specificity of this aspect of research and diagnosis of conditions is that they are considered for the effectiveness of their activities, their correlation with the capabilities of a person in one condition or another, to successfully perform a certain type of activity. Therefore, special attention is paid to the states of fatigue, monotony, stress, anxiety.

**The goal of the work** is to analyze psychological literature on the problem of diagnostics the nature and features of psychical states of personality.

**Presentation of the main material.** Psychical states were first the subject of systematic scientific analysis in research of M. Levitov [4]. Some problems of psychical states of the individual dedicated to the work of many other native as well as foreign researchers (L. Berkovitz, V. Bekterev, V. Vilyunas, B. Dodonov, K. Izard, E. Ilyin, O. Kovalev, M. Korolchuk, V. Krainyuk, K. Platonov, S. Rubinstein, T. Shingarov, O. Chebikin, P. Jacobson, and others). The psychical states of personality include the manifestation of feelings (mood, affect, euphoria, anxiety, frustration, etc.), attention (focus, inattention), will (determination, bewilderment, alertness), thinking (doubt), imaginations (delusions) [2].

The concept of "functional state" originally emerged and developed in physiology. It is in physiology that much attention has always been paid to the study of conditions. Especially the brain and nervous system. Thus, it is considered the most important task to study the states of higher nervous activity, considering their physiological mechanism of mental states, and psychology – the science of internal (psychical) states [7].

The analysis of only the physiological basis of mental states can be considered sufficient. Each state has a variety of manifestations relating not only to the physiological, but also to the psychological and behavioral levels. Researchers of this problem consider psychical states as a complex systemic response of a person in response to external influence, which is manifested in both physiological and psychological reactions. Functional status is understood as "an integral complex of cash characteristics of those functions of human qualities that directly or indirectly determine the performance of the activity" [1]. Therefore, changes in the condition of the working person can be recorded by registration as the functioning of various physiological systems (cardiovascular, respiratory, endocrine, motor, etc.), as well as the course of the basic mental processes (perception, memory, attention, etc.) and the severity of subjective experiences (fatigue, lethargy, powerlessness, irritation, etc.). Multilevel mental states are manifested in various campaigns to their diagnosis.

The problem of diagnosing conditions in differential psychological and psychodiagnostic studies is of secondary importance. This is due to the fact that diagnostics as applied science, its main purpose is to find and measure relatively stable human properties, which allow to build long-term forecasts. In this regard, diagnostic techniques are subject to special testing for reproducibility of diagnostic results at repeated examination.

Moreover, often functional states in diagnosis are regarded as a masking factor or, conversely, contributing to the manifestation of individual traits. In both cases, the condition reduces the accuracy of estimates of the latter, prevents objective diagnosis and prognosis. Therefore, traditionally, books on psychological testing and differential psychology have no sections on mental states.

At the same time psychodiagnosis of mental states can have a special applied value. Measurement of conditions of people arising in the process of activity can be used to develop recommendations on the organization of work and rest, to optimize the process of performance, normalization of working conditions, normalization of workloads, etc. These tasks (among others) were successful in psychotechnics in the 20–30's of the XX century. Diagnosis of the mental states of individual individuals is needed to determine their fitness in extreme situations, to assess their reliability in difficult and dangerous situations, to prevent "forbidden" conditions, to make recommendations for the correction of conditions.

The development of methods for the diagnosis of psychical conditions is associated with the solution of a number of problems arising from their specificity as dynamic formations of multilevel nature. For these methods, homogeneity indicators are used, but the notion of retest reliability can be applied to them, since it is impossible to reproduce diagnostic results in repeated measurements.

The same methods as for other diagnostic tools are used to establish the validity of mental health diagnostic techniques. This emphasizes the special value of validity in content, since the condition is a complex reaction of a person with many symptoms, and it is difficult to expect in each case the manifestation of their totality. The problem of norms, according to psychologists who deal with these issues, should be treated differently, turning into a problem of "background" or "background level of status" [3].

The main difficulties in the diagnosis of psychical states are related to their multilevel and the large number and variety of factors on which they depend. Considering the condition as a complex systemic reaction of a person to influence, psychodiagnostics develop different methods of their assessment. Usually there are three groups – physiological, behavioral and subjective (VP Zinchenko, Yu.K. Strelkov). There is another classification proposed by AB Leonova, which distinguishes physiological and psychological methods.

In physiological methods, various parameters of the central nervous system, as well as vegetative shifts, are used as indicators of functional states. Among them are electroencephalogram (EEG), electromyogram (EMG), skin-galvanic reaction (KGR), heart rate, vascular tone, pupil diameter and others. Depending on the nature of the functional state, various physiological indicators and their combinations are more suitable than others. Yes, brain electrical activity has traditionally been a direct indicator of an individual's level of activation. Tensions and fatigue associated with high energy costs are manifested in increased gas exchange and increased heart rate. OAG is used to diagnose emotional states.

The main difficulties in the use of physiological indicators are related, first of all, to the problems of establishing the standard level of functioning of physiological systems and the nonlinearity of their shifts; secondly, with the need for special equipment and often complicated measurement techniques; thirdly, with variability of physiological parameters of different individuals [5].

Psychological methods for the diagnosis of functional conditions include assessing the success of a particular activity. Changes in the number, quality and speed of its implementation are indicators of shifts in the state. Often, the parameters of real work activity are analyzed.

However, despite the fact that psychical states affect the success of the activity, the external manifestations of the dynamics of its effectiveness can not be made unequivocal conclusions about the presence of a condition. For example, an increase in the number of marriages, a decrease in the speed of work can be explained by many reasons unrelated to the change in psychical state. In addition, quantitative performance indicators are not found in some activities.

Therefore, the most appropriate psychological tools for the diagnosis of psychical states are recognized as special short functional tests that characterize the effectiveness of various mental processes in the performance of certain tasks. As such, practically any method can be used to assess perception, attention, memory, thinking and other mental functions. The most commonly used for the assessment of mental states include proofreading tests, Schulte tables, characterizing attention, the method of pairwise associations, Ebbinghaus technique, methods of continuous Kraepelin calculation and elementary Pieron-Ruzer encryption, designed to assess memory and thinking.

In addition, the methods used to measure the absolute and differential sensitivity of different analyzer systems are used. These are known techniques for determining the critical fusion blinking frequency (CCHM) and detecting the dynamics of sequential images.

In addition, the methods of evaluation of motor functions (measurement of reaction time when performing various sensorimotor tasks, test) are used.

As indicators of changes in mental states in functional tests are used the success and speed of the tasks. There is a search for integral criteria for evaluating shifts in psychical states. As the main drawback of functional tests as methods of diagnostics of functional states, psychologists see differences in the content of tasks performed during diagnosis, on the one hand, and in the process of real activity, on the other. Therefore, it is often impossible to predict the occurrence of a particular state in the activity based on the functional test used. In some cases, this can be explained by the use of any compensatory mechanisms, such as the mobilization of additional energy resources in the event of fatigue, if the work is particularly responsible and meaningful.

In addition, the lack of functional tests shows that with their help it is possible to obtain only an external evaluation of the function performed without identifying the causes and mechanisms of the changes [6]. The fact that these shifts can be nonspecific (ie, the same changes occur in different mental states), which makes it necessary to obtain information about the condition as a complete systemic response, including the use of special adaptation mechanisms. Therefore, it is considered appropriate to use not one, but a set of functional tests that are susceptible to influence, which leads to a change of state, and the evaluation of the latter should be based on the analysis of the specific combination of data of all methods.

Along with functional tests that reflect the real dynamics of mental processes under the influence of shifts in psychical states, psychologists are widely used to diagnose the latest questionnaires of different types, allowing to identify the state through complexes of subjective feelings and experiences of the individual. Despite a number of difficulties associated with the use of questionnaires (the tendency of their results of the effects of attitudes, motivation, dependence on the skills of reflection, etc.), we can not deny the need to take into account the experiences of the latter. Diagnosis of mental states requires the need for a comprehensive approach, consisting in the assessment of physiological functions, the dynamics of mental processes and the severity of subjective feelings and experiences.

The development of questionnaires aimed at the diagnosis of psychical states involves careful identification of the subjective symptoms of the experiences of the measured conditions. Questionnaire forms are diverse. In some of them, the various symptoms of mental states, presented in the form of verbal descriptions, the subject must correlate with their own feelings and experiences and answer on a dichotomous principle ("yes" or "no"). Quantitative assessment of the severity of each symptom is not required, and the conclusion about the presence and levels of functional status is based on the number of these symptoms. This is how the Taylor Personal Anxiety Scale is built. The disadvantage of this type of mental health questionnaire is that the indicator of the total number of these symptoms is too rough and rough.

Another form of questionnaires is presented as a list of statements describing the symptoms of mental state, and the subject should evaluate the severity of each of them, using the proposed scale of adjectives (usually three to five-step). For example, in the Asthenic Status Scale, each of which should be evaluated against its own state on a four-point scale ("wrong", "apparently, yes", "true", "quite true").

Another form of questionnaire offers the subject a list of situations that cause a certain condition, and the subject is required on a certain scale to evaluate each situation in terms of how it can cause the condition. This is the scale of O. Kondash's social and situational anxiety scale. And finally, another form of questionnaire involves subjective scaling of symptoms of their own states by a number of quantitative gradations given by the psychologist. These questionnaires are usually presented with either a pair of polar features ("passive – active") or a separate brief statement ("weakness", "tired", "rest", etc.). The subject is required to evaluate the severity of each symptom, correlating the intensity of one's own experience with a given rating scale. Bipolar scales are modifications of the famous semantic differential method by Ch. Osgood, and monopolar scales are variants of so-called adjective lists.

Individual questionnaires differ in the number of mental state symptoms included in their composition. An analysis of their comparative effectiveness has led psychologists to conclude that the volume of signs should not be excessive, and its reduction should be accompanied by the inclusion in the questionnaire not of minor, but the most significant, key symptoms.

One of the problems that arises when designing any questionnaire is the accuracy of the wording, the choice of the many words that exist in each language to indicate the symptoms of psychical states, the clearest and most understandable of those for whom the questionnaire is intended.

When developing techniques for subjective scaling, the question arises about the dimensions of scales. As a rule, scales containing 5, 7 or 9 gradations are used, but there are attempts to increase the gradient dramatically (up to 100). Use non-graded and graphical scales when the subject on a line segment should mark the distance subjectively corresponding to the intensity of the scaled experience.

**Conclusions.** Concluding the discussion of issues related to the methodological support of the diagnostic practice of psychical state assessment, it should be noted that the main line of development is associated with the use of complex methods that allow to measure the condition at the same time using qualitatively different indicators. Such an integral assessment is considered to be the most adequate, reflecting psychical state in the form of syndrome of objective indicators. The development of diagnostic methods that allow receiving information about structural adjustments occurring in the activity of functional systems and reflecting the dynamics of states is considered perspective.

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## ДО ПРОБЛЕМИ ДІАГНОСТИКИ ПСИХІЧНИХ СТАНІВ

Стаття присвячена теоретичному аналізу психологічної категорії "психічний стан" та його діагностиці. Визначено основні напрями дослідження психічних станів людини в психологічній науці. Узагальнено підходи до розробки методів діагностики психічних станів. Проаналізовано основні засади діагностики психічних станів відповідно до фізіологічного, психологічного і поведінкового рівнів. Узагальнено, що функціональний стан в діагностиці розглядається як фактор, що маскує або, навпаки, сприяє прояву індивідуальних рис особистості. Проаналізовані дослідницькі парадигми та основні шляхи діагностики психічних станів людини. Розкрито перелік основних недоліків функціональних проб як методів діагностики функціональних станів людини. Підкреслено особливу цінність валідності методик діагностики психічних станів.

Ключові слова: психічний стан, діагностика, методи.





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