

**STUDY OF COGNITIVE PROCESSES OF ONCOLOGICAL PATIENTS**

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<b>A B S T R A C T</b>	<b>KEY WORDS</b>
<p>Today, oncological diseases have an increasing trend all over the world. Early detection of the development of oncological disease, use of effective methods of treatment, extension of the remission period, and development and improvement of rehabilitation measures constitutes the content of fighting the disease. In the treatment of a patient diagnosed with cancer, it is important not only to use medical measures, but also to take into account the patient's psychology. From this point of view, monitoring the psychological state of oncology patients and having a positive psychological effect on them serves to increase the effectiveness of medical procedures, which are the main type of treatment.</p> <p>The article recognizes how important it is to study the cognitive processes of oncology patients and the specific features of conducting psychodiagnostics.</p>	<p>Oncology, psychodiagnostics, patients, healthy people, disease</p>

**Introduction**

Introduction and relevance: Conducting psychodiagnostic and psychocorrective activities with oncological patients requires special training from the researcher. Because any disease that occurs in the body causes specific psychological changes in the human psyche, and the identification and description of these changes depends on the chosen methods. In this case, it is required that the methodological basis in the selection of methods allows to determine the intended psychological phenomenon.

**Methods and level of study:**

In my research, when conducting psychological activities with oncology patients, I approached from the point of view that any changes in the patient's organism or psyche affect each other. For this, the principles of the systematic-complex approach of B.G.Anan'ev and B.F.Lomov were used as a methodological basis.

B.G.Anan'ev has both theoretically and practically researched the human individual system as a multi-faceted and multi-dependent structure as a single integrated and differentiated tendency. According to him, a complete description of a person's individuality is given by understanding it. According to B.G.Anan'ev, he believes that the primary and most important comprehensive method in psychology is

the organization of measurement on the basis of a set of characteristics based on criteria of different levels and forms related to the individual character, activity, and personality of the examinee.

As a secondary complex method, it is to determine the characteristics of an individual at different levels in the conditions of different functional states (by a set of states) [1].

B.F. Lomov states that the use of a systematic approach in psychological research is based on the following: a systematic approach to a certain phenomenon in research requires considering it in different aspects: 1) as a qualitative unit as a system with its own special laws; 2) as a part of the macrosystem and laws to which it is subject; 3) also at the level of microsystem laws to which it is subject; 4) in the plan of its external effects [2].

It is important to distinguish cognitive processes that are selected in research aimed at studying the cognitive processes of oncological patients. The research used observation, interview, patient anamnesis, the Mini-Mental State Examination, and Raven's progressive matrix to determine the level of intelligence.

Psychological changes observed in the patient through the method of observation, including perception of reality, the ability to direct and focus attention on a specific object, notice the sensations occurring in the body, the uniqueness of the memory process, thinking, imagination processes it is determined that it is appropriate for the patient's age and current condition.

Raven's progressive matrices (Raven's test) are designed to study the logic of technical thinking.

The task of the test is to establish a pattern connecting the numbers in the picture and indicate the number of the desired number from the options offered in the questionnaire.

The test consists of 60 tables (5 series). Each series of tables has tasks of increasing difficulty. At the same time, the complexity of the type of tasks from series to series is also characteristic.

The obtained total indicator is converted into percentages according to a special table.

At the same time, 5 levels of intellectual level are distinguished according to a special scale:

1 degree - more than 95% - high intelligence; Level 2 - 75-94% - above average intelligence; Level 3 - 25-74% - average intelligence; Level 4 - 5-24% - below average intelligence; Level 5 - less than 5% - defect.

The next method is the Short Mental Status Assessment Scale.

## **Mini-Mental State Examination (Mini-Mental State Examination)**

The MMSE scale (1975) is widely used to identify and assess cognitive disorders of various etiologies, and helps to determine the level of important cognitive processes.

Rules for filling out the MMSE scale

**Understanding time.** The patient is asked to tell today's date, day of the week, month, season and year in full. 1 point is given for each correct answer. Thus, the test taker can score from 0 to 5 points. The total score is 0-5.

**Spatial awareness.** The subject is asked the following question: "Where are we now?" The test taker must correctly state the country, city or region, where the test is being conducted (home or hospital), area or building, floor or room number. Each correct answer is given 1 point. For this task, the examinee can score from 0 to 5 points. So the total score is 0-5.

**Perception.** "Repeat and remember the following 3 words: "water, nina, pen" will be given to the examinee. The psychologist must pronounce these words clearly and without haste (one word per second). 1 point is given for each correctly repeated word. After that, it is said to him: "Have you memorized the words, let's repeat them again." If the subject has difficulty repeating the words in this sequence, the psychologist repeats the words again and is asked to repeat them. In this order, they are asked to repeat the words several times (but not more than 5 attempts). If the test-taker says 3 words in a row correctly in the first repetition - 3, if he says it correctly in the second attempt - 2, if he says it correctly in the third attempt - 1 point is given. If the examinee cannot complete the task in subsequent attempts, 0 points are given. The total score is 0-3.

**Attention.** The test taker is told "subtract 7 from 100 in a row." He must subtract 7 from 100 in the following order:  $100-7=93$ ;  $93-7=86$ ;  $86-7=79$ ;  $79-7=72$ ;  $72-7=65$ . 1 point is given for each correctly subtracted number. If the test-taker performs all 5 subtractions correctly, he is awarded 5 points. Do not rush the examinee while completing the task. The total score is 0-5.

**A memory.** The test taker is asked to memorize the words used during the comprehension test. 1 point is given for each correctly remembered word. The total score is 0-3.

**Gnosis (gnosis of vision).** Show the subject a pencil and ask him "What is this?" is called In the same order, another object (such as a clock) is shown and asked what it is. 1 point is given for each correct answer. Total score 0-2.

**Repeat the sentence.** The examinee is asked to repeat the following sentence: "At least, never." This sentence is said only once. The examinee must repeat it in the same manner. If he repeats correctly - 1 point, if he cannot repeat - 0 points.

**Understanding the assignment.** The examiner is given a 3-step task orally. "When you take the paper with your right hand, fold it in two and put it on the table." 1 point is assigned to each correctly performed step. This task is given once. The total score is 0-3.

**Reading.** The examiner is given a piece of paper with the sentence "CLOSE YOUR EYES" written in large letters. He is told: "Read this writing aloud and do it." The examinee should read these words and close his eyes. If the examinee actually closes his eyes after reading the words on the paper, he is given 1 point. If the task is not completed - 0 points.

**Writing.** The examinee is asked to think of a sentence and write it down on a piece of paper. If the sentence written on the paper is grammatically correct and meaningful, 1 point is given to it.

**Drawing.** The examinee is asked to draw 2 intersecting pentagonal figures in the same form. A rectangle should be formed in the middle. If the task is performed correctly - 1 point, if it is performed incorrectly - 0 points.

Evaluation scores

### Sum of points, score Level of cognitive impairment

28–30 No cognitive impairment

20–27 Mild dementia

11–19 Moderate dementia

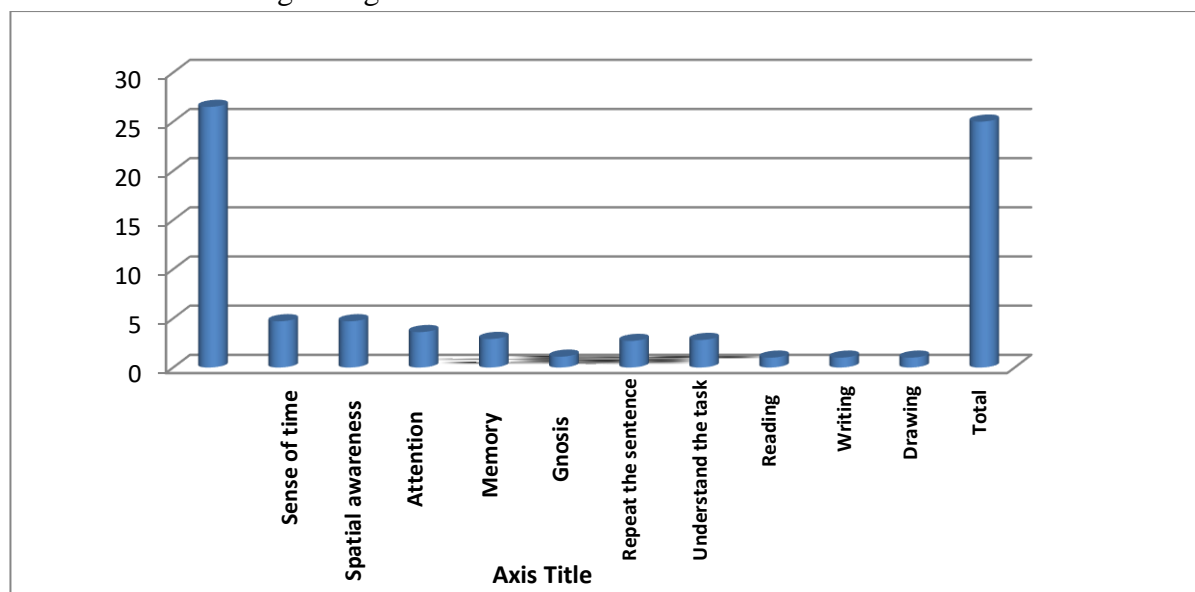
0–10 Severe dementia

A healthy person scores up to 28-30 points. As the cognitive impairment deepens, the total score decreases. The MMSE scale is widely used in diffuse damage of the brain (cerebrovascular diseases, encephalopathy of various etiologies, diffuse cerebral atrophy). But this test is not used in advanced dementia due to local brain damage.

### Research Results

The empirical part of the research is the study of the cognitive processes of oncology patients, a total of 26 patients who are being treated with various nosologies of oncological pathology at the Khorezm Branch of the Republican Specialized Oncology and Radiology Scientific and Practical Medical Center, and a total of 25 patients who consider themselves healthy at the moment 51 respondents participated.

According to the scale of Raven's progressive matrices, the average arithmetic value of the patients treated with the diagnosis of different nosology of oncological pathology is 26.5. According to the short scale of assessment of mental status, the arithmetic mean value is equal to 25. The results are presented in the following histogram:



So, if we make a general conclusion from the above histogram, the level of cognitive processes in patients diagnosed with oncological disease was generally 26.5, that is, it showed an average level of intelligence.

According to the short scale of mental status, the total statistical value was equal to 25. The level of cognitive impairment of oncology patients who participated in the study showed that mild dementia had developed.

At the same time, we conducted the same methods on the respondents who considered themselves healthy.

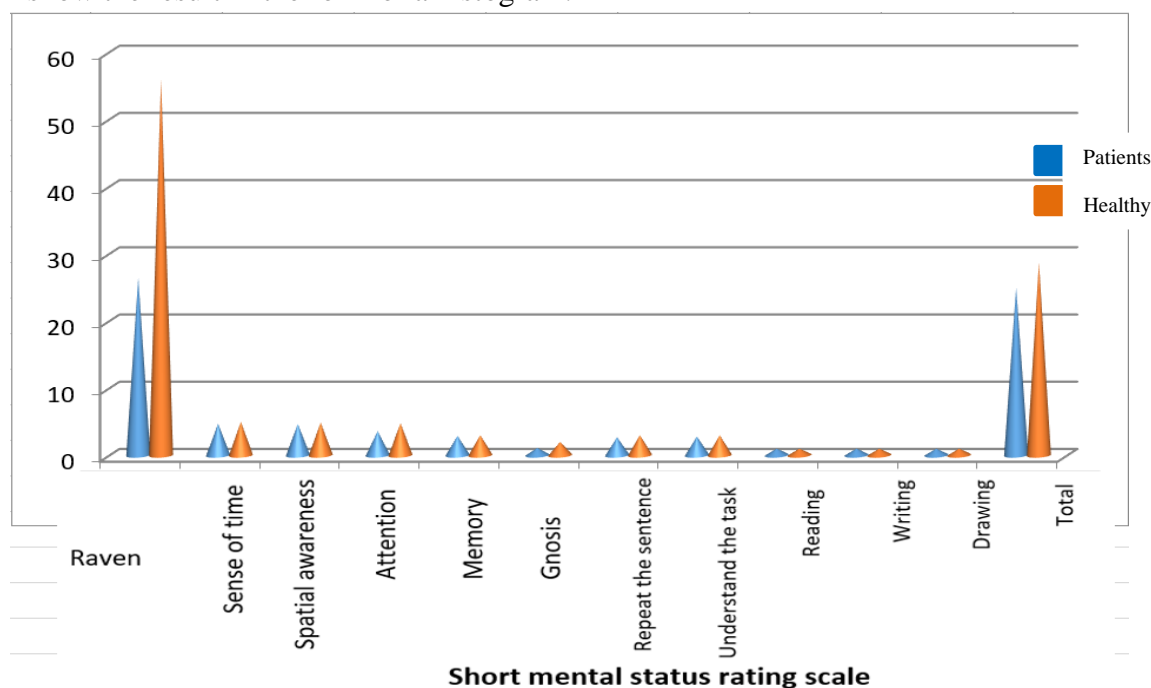
According to the scale of Raven's progressive matrices, the average arithmetic value of the respondents who consider themselves healthy shows that it is equal to 56. According to the short scale of assessment of mental status, the arithmetic mean value is equal to 28.7.

So, to make a general conclusion from the above histogram, the level of cognitive processes in healthy test subjects showed a total of 56, that is, an average level of intelligence.

The total statistical value of the Short Scale of Mental Status was 28.7. The test results of healthy respondents who took part in the study showed that there was no cognitive impairment.

Below we compared the results of oncological patients and healthy people.

We will show the result in the form of a histogram.



Therefore, the results of the methods used in the research showed that oncology patients show changes not only in their psycho-emotional state, but also in their cognitive processes due to the disease. When compared with healthy people, there were significant differences.

Conclusion: in oncological diseases, in addition to physical changes, psychoemotional and cognitive changes of equal strength occur in the patient's body. In the study, observation, interview, Raven's progressive matrices, short scale of mental status assessment were selected.

In the empirical part of the study, the cognitive processes of oncology patients were studied. In the process of observation and interview, changes in cognitive processes were observed in patients with various psycho-emotional states, including lack of mood, sub-depression, anxiety, fear of dying from illness, etc. In particular, attention concentration problems, changes in memory, thinking, intuition, imagination and similar mental processes were observed.

In patients diagnosed with oncological disease, the level of cognitive processes in general showed an average level of intelligence, and the level of cognitive impairment according to the short scale of mental status assessment showed that mild dementia had developed.

As a result of the methods used in the research, it was shown that oncological patients have changes not only in their psycho-emotional state, but also in their cognitive processes due to the disease. When compared with healthy people, there were significant differences.

## References

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