METHODS OF RESEARCH OF DISORDERS IN THINKING

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Clinical psychometrics includes the methodology of scientific measurement of psychological constructs in medicine, primarily in psychiatry and clinical psychology. In recent years, the psychometric approach in psychiatry and clinical psychology has become an independent field of theoretical and practical knowledge called "clinical psychometrics". This concept was brought to science by the Danish scientist and psychiatrist P. Bech. Before the formation of the psychological approach, only the explanatory models of mental diseases were shown in medicine. The most famous of them, for example, Freud's psychoanalytic model, have not been scientifically proven to be clinically valid. A scientific approach in clinical psychology as an integral part of psychiatry began to take shape due to the development of psychometrics.

For this reason, we formed a certain classification of a number of methods for the diagnosis of cognitive function disorders (the full details of the classification are detailed in our previously published works). In this process, the analysis of the methods of studying thinking was carried out. According to him, the properties of a number of methods used in psychodiagnostics were highlighted. Experimental work was conducted on some of these methods to test the state of their implementation in patients' mental disorders. For this purpose, in our study, the thinking characteristics of patients with brain damage and neurosis were diagnosed.

1-table

Indicators of patients with thought disorder

№	Methodologies	Overall result		Patients	X	σ	t
		M	σ				
1.	A sophisticated analogy	3,88	1,39	Traumatic brain injury (N=10)	3,40	1,32	-2,10*
				Neurosis (N=19)	4,36	1,47	
2.	Quantitative Relationship Test	3,26	1,29	Traumatic brain injury (N=10)	3,02	1,26	1,010

				Neurosis (N=19)	3,50	1,31	
3.	Identify the important signs	4,24	0,95	Traumatic brain injury (N=10)	4,14	0,96	-1,845
				Neurosis (N=19)	4,34	0,94	

Note: *p≤0,05

Empirical indicators According to the results of the "Complex analogies" method, patients with neurosis had a significant score compared to patients with brain damage: 3.40 points and 4.36 points; t=-2.10, *p≤0.05. Empirical values were able to reflect higher indicators of neurosis compared to patients with brain damage on complex analogies. As a result of brain injury, patients are always deprived of the ability to adequately analyze the sharp differences and similarities between objects and events. Quantitative values indicate that patients' ability to make abstract and complex logical connections between concepts is greatly impaired.

According to the results of the test, both categories of patients have disorders of thinking according to the norms of the "Quantitative Attitude" test, while there is a decrease in the characteristics of logical thinking in patients with brain damage and neuroses. All brain-injured (score 3.02) and neurotic patients (score 3.50) performed significantly less satisfactorily on non-verbal tasks than on non-verbal tasks. Because the tasks in the “Quantitative Relations Test” were designed to determine the logical relationship between numbers. In this case, there were tasks that caused common difficulties to all patients with brain injuries and neuroses. These tasks required a high concentration of patients for "arithmetic", "repetition of numbers" and especially "encryption". This indicates that they face difficulties in solving logical tasks due to their inability to concentrate.

Together with these methods, we wanted to test D.J. Raven's "Progressive Matrices Test" in order to study the characteristics of patients' intelligence. However, we could not implement the methodology tasks due to the non-verbal nature of the tasks and the need for excessive attention concentration and visual thinking in patients, as well as the high standard of time for completing the tasks. In fact, it is necessary to form a shortened form of this methodology designed to determine cognitive function disorders.

In turn, an expert assessment of the level of diagnostic use of the methods used for the diagnosis of thought disorders was achieved (Table 3.2.2).

2-table

Indicators of experts on the scale of evaluation of the level of use of diagnostic methods of patient thinking for medical diagnosis purposes (N=31)

№	Criteria	A sophisticated analogy		A quantitative relationship test		Identify the important signs	
		X	σ	X	σ	X	σ
	Implementation time indicator of the methodology	4,22	0,66	4,54	0,56	4,06	0,51
	Convenience of specialists to work on the methodology	4,19	0,54	4,64	0,66	4,12	0,67
	Ease of implementation of the methodology by the examiner	4,29	0,69	4,61	0,55	3,96	0,91
	The possibility of using the methodology in medical diagnostics	4,25	0,52	4,51	0,62	3,80	0,87
	The importance of using methodology in medical research	4,45	0,56	4,28	0,64	4,25	0,81
	Utilization indicator	4,28	0,594	4,516	0,606	4,038	0,754

The points given by the experts led to a high evaluation of the indicator of usefulness in applying the methods used for diagnosis of thinking in new directions. "Quantitative relations" test (4.51 points), "Complex analogy" (4.28 points) and "Identification of important signs" method (4.03 points) had a

higher value in terms of usefulness. If we analyze the percentage of the use of these methods, the "Quantitative relations" test was -90.2%, "Complex analogy" -86%, and the "Highlighting important signs" method was -80.6%. It can be seen that the method has been positively confirmed by experts for diagnostic purposes in medical practice.

In conclusion, it can be said that the methods of evaluation of changes in thinking in the field of cognitive disorders have a clear criterion, are comprehensive according to the nature of their application, and are a direction that has the property of evaluating the characteristics, operations, and forms of thinking.

It was practically confirmed that "Complex analogy", "Quantitative relations" and "Distinguishing important signs" methods can describe the changes in the cognitive characteristics of patients during the disease.

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