



Problems of Using Psychological Diagnostic Methods in the Medical Field

Melibaeva Ruzakhan - Associate professor, Department of Pedagogy and Psychology, Tashkent Medical Academy.

Narmetova Yulduz - Associate Professor, Department of Pedagogy and Psychology, Tashkent Medical Academy.

Bekmirov Talib - senior lecturer, Department of Pedagogy and Psychology, Tashkent Medical Academy.

Nazarova Zarnigor – Assistant, Department of Pedagogy and Psychology, Tashkent Medical Academy.

Abdumutalibova Magfirat – Assistant, Department of Pedagogy and Psychology, Tashkent Medical Academy.

(Received: 05 June 2023

Revised: 14 October 2023

Accepted: 24 November 2023

KEYWORDS

medical
psychodiagnostics,
model,
methodology,
structure, person,
patient, neurotic
disorders, mental
disorders,
questionnaire,
diagnostic defining
stage,
organizational
stage, introduction
stage, perspective
stage.

Abstract

The article is dedicated to the research and analysis of the possibilities of using medical psychodiagnostics in Uzbekistan, to comprehensively illuminate the model of improvement of the system of introduction of medical psychological diagnostic methods as a new system based on international and local experiences. It is stated that the model of improvement of the system of introduction of psychodiagnostics in medicine represents the overall structure of measures and tasks necessary for implementation in the field, which is an effective way to find a solution to the problems of introduction of psychodiagnostics methods in medicine.

Introduction

In neuropsychiatry, psychosomatic pathology, in general medical practice, due to the existence of interrelationship between psychological reasons of attitude to patients with somatopsychic nature and cancer patients and their treatment, issues of improving the system of psychodiagnostics in this category of problems remain relevant. According to WHO's official information, "The largest share of various mental abnormalities, from anxiety and depressive states to severe forms of schizophrenia, occurs in the developed countries of the world." First of all, this is observed in European countries, where 870 million citizens suffer from such diseases [1]. In this regard, it is necessary to further integrate medicine and psychology in the

development of diagnostic, treatment and rehabilitation technologies, to study the issues of getting rid of pain and returning to normal life by restoring the human psyche based on the use of psychocorrective and psychoprophylactic measures in the treatment of patients based on medical psychodiagnostics.

In the world educational and scientific institutions, scientific researches are being carried out on the methods of optimizing the types of treatment through the diagnosis of the patient's clinical and psychological conditions, relying on the psychological characteristics of the patients, achieving effective rehabilitation in surgery. In this regard, to carry out psychodiagnostics of the factors that cause cognitive and personality disorders in a



person, to identify the first psychological symptoms of diseases and to develop medical-psychological guidelines for them, to identify the first symptoms of biosocial factors of psychosomatic and oncological diseases, to strengthen the possibilities of medical psychodiagnostics, to develop a system of using psychological diagnostic methods the need to pay special attention to scientific-practical research related to laying remains of urgent importance.

Purpose of the research

It consists in researching and analyzing the possibilities of application of psychological diagnostic methods in the field of medicine, developing the necessary recommendations for improving their use for the purposes of medical psychological diagnosis.

Materials and Methods

The formation of psychodiagnostic methods that serve to measure a person's behavior, activity and mental capabilities in foreign scientific research, scientific research on ensuring the compatibility of psychometric criteria is carried out by the world's leading scientific centers and higher education institutions, including the American Psychological Association (USA), University of Nebraska (USA), conducted by The British Psychological Society (Great Britain), University of Kent (Great Britain), Freie Universität Berlin (Germany), South Ural University (Russian Federation), Imaton company (Russian Federation).

On the basis of the research carried out in the world to determine the problems of medical psychodiagnostics, including the unification of psychological tests and diagnostic methods, operational and cost-effective forms of tests of medical psychologists were created (American Psychological Association, United States of America); improved psychometric criteria of psychological measurement by introducing clinical psychometrics (University of Nebraska, United States of America); as a result of improving the technology of computer diagnostics of tests, the principles of professional application of test process standards were developed (The British

Psychological Society, Great Britain); by developing a program for the use of psychological test batteries, comprehensive diagnosis of patients was established (University of Kent, Great Britain); on the basis of the improvement of the standards of use of tests, the optimization of the possibilities of the application of the methods of specialists was achieved (Freie Universität Berlin, Germany); stages of test creation are systematized based on the strengthening of the technologies of preparation of psychodiagnostic methods (South Ural University, Russian Federation); by forming a system of effective introduction of tests, the principles of creating, adapting and modifying tests have been strengthened ("Imaton" company, Russian Federation).

In the world, scientific research is being carried out in the following priority directions on the problems of medical psychological diagnosis, including, on the basis of the effective application of medical psychodiagnostic methods for various disease areas and systems, by identifying the factors that cause the disease, proposing new treatment methods, psychological states and experiences of the individual to the origin of the disease. to carry out psychological diagnostics, taking into account the determination of the effect, to pay attention to the formation of a model of the psychological image of a medical worker based on the professional and personal characteristics that affect the improvement of the professional activity of a medical worker, to organize medical psychodiagnostics according to the types of diseases, psychocorrective and psychoprophylactic along with medical psychological diagnostics in the treatment of patients such as improvement of activities, among them.

Yu.A. Aleksandrovsky, D.M. Aranov, A.V. Batarshv, V.M. Bleicher, L.I. Wasserman, V.M. Zaitsev, N.I. Kosenkov, V.N. Myasishchev, G.V. Starshenbaum, Yu. Shchelkova's research on the tasks of medical psychodiagnostics, issues of treatment and recovery of patients with neuropsychic and psychosomatic diseases, prevention of diseases, as well as scientific research according to the tasks of psychological counseling,



psychological correction, psychotherapy and social rehabilitation of patients conducted [2].

In the research of foreign researchers T. Buchanan, M. F. Green, G. J. Jogerst, A. Jorm, Z. S. Nasreddine, N. A. Phillips, A. Puente, etc., the practice of using psychological diagnostic tools in special cases of disease treatment was carried out [3]. In these studies, the issues of application of medical psychodiagnostics in the field were not investigated.

In the emergence of psychodiagnostics and medical psychodiagnostics as a science, the world's leading psychologists-scientists Z. Freud, K. Jung, L. S. Vygotsky, B. G. Ananov, B. F. Lomov, A. Adler, V. N. Myasishchev, V. B. D. Karvasarsky, L. I. Wasserman, O. Yu. Shchelkova, E. A. Trifonova, V. M. Volovik, M. M. Kabanov and the results of other people's scientific research are important.

Regarding the stages of development of world clinical psychodiagnostics and its role in clinical practice, it is possible to consider clinical psychodiagnostics as an interdisciplinary field of research due to the intersection of medicine and psychology, and its first foundations are the research related to the work of the French doctor J. Esquirol on mental retardation. The next stage of development of clinical psychological diagnostics A. Bine, F. Galton, J. Kettel, E. Krepelin, G. Ebbinghaus, T. Simon A. Gelb, K. Goldstein, K. Kleist, V. Poppreiter, W. M. Bleicher, explained on the basis of the scientific research of scientists such as S.N. Bokov.

Although the researches within the framework of medical psychology in Uzbekistan are not directed to a specific field, the final solutions in this regard were made by psychologists Sh.R. Barotov, Z.R. Ibodullaev, D.I. Ilkhamova, M.K. Karamyan, V.M. , Yu.K. Narmetova, Z.T. Nishonova, N.R. Salimova, D. Urazbaeva, G'B. Shoumarov, F.E. Qazieva's research works are devoted to health psychology, psychophysiology, psychohygiene, medical psychology, issues of psychological service in various fields, the role of psychological factors in the origin, progression and treatment of diseases aimed at a psychological approach in the medical direction, the rehabilitation of the patient's psychological state and personal characteristics [4].

However, they did not study the issue of the application of psychological diagnostic methods in the field of medicine.

The scientists of our country conducted research in the field of medical psychodiagnostics in connection with the new era of the development of world science, and medical psychodiagnostics were combined with scientific results in the field of medical psychology. Research on medical psychology in Uzbekistan is carried out by V.M. Karimova, basic problems of medical psychology by Z.R. Ibodullaev, organization of psychological service by Sh.R. Barotov, health psychology, psychophysiology, psychohygiene, medical psychology, psychological service in various fields. issues of M.K. Karamyan, age-gender characteristics of the relationship to the disease in cardiovascular diseases D.I. Ilkhamova, psychological mechanisms of influence on the personal emotional sphere of women oncological patients D. Urazbaeva, clinical and psychological characteristics of personality rehabilitation (in the case of addicts) F studied by E. Gozievalar [5].

In recent years, in our republic, in the improvement of the system of psychological diagnosis in medicine, strategic tasks aimed at improving the quality of medical services provided to the population, centralizing medical services and introducing the practice of medical insurance of the population have been defined, and the necessary legal and regulatory frameworks have been created: increasing remains a priority..." [6]. In this regard, in accordance with the principle of implementation of the state policy "To create more favorable conditions for the population to use quality medical services, to take the necessary measures for the organization of primary medical services in the neighborhoods...", a new theoretical approach aimed at deepening scientific research on the introduction and improvement of the quality of psychological diagnostics in the medical field and the necessary opportunities and basis for finding practical solutions were created [7].



Methods

In the course of our research, expert assessment and factual analysis methods, as well as E. Kraepelin's "Calculation Table", A.R. Luria's "Memorization of 10 Words", V. Zung's "Differential Diagnosis of Depression", K. Heck and X. Hess's "Expressive-diagnosis of neurosis" method, James Kincannon's "Mini-mult" questionnaire, DJ. Rotter's "Subjective control level determination" test-questionnaire, R.B. Kettell's 16 RG' questionnaires were used. Student t-test, Kruskal-Wallis N-test, and Manny-Whitney U-test were used to analyze the results obtained from the study and mathematically-statistically express the reliability of conclusions, i.e., the significance of differences between unrelated samples.

Discussion

Analysis of the practical features of the application of psychodiagnostic methods in medicine, points of connection between the science of psychology and medicine, that is, psychotherapy; reflected in connection with interdisciplinary scientific fields such as psychoneurology, clinical psychometrics, psychosomatics, neuropsychology. At this point, we present the necessary criteria for practical application of the methods intended for clinical psychodiagnostic purposes: a) formation of a system of psychological tests important for clinical psychodiagnostics with qualitative parameters of theoretical and practical research; b) provide regulatory indicators suitable for the environment; v) conducting research on the solution of methodological problems of the application of psychodiagnostic methods for clinical purposes; g) developing methodological guidelines for the

use of clinical psychodiagnostic methods in medical and psychodiagnostic research; d) introducing the training of medical and clinical psychodiagnostics, clinical psychometrics courses at the stage of professional training of specialists in the related fields of medicine and psychology; e) in the future, it will be necessary to provide scientific information on the application of clinical psychological diagnostic methods in local scientific publications.

Also, it is possible to interpret methods of psychodiagnostic classification of cognitive function disorders and methods of studying disorders of attention, memory, and thinking according to classification signs.

Regarding the diagnostic features of mental disorders of a person, it is possible to systematize methods that can be used for diagnostic purposes based on the interdependence of diseases.

For the purposes of medical diagnosis, a questionnaire was conducted on the application characteristics of psychodiagnostic methods among medical staff (professors-teachers) and medical university students. This reflected the following relationships (Table 1).

According to the results of the questionnaire, the indicators of clinical psychological assessment tools related to personality disorders among medical workers and medical university students were as follows: the indicator with the most application characteristics was the Spielberger-Hanin test (43.75% and 8.13%). did This methodology is designed to study reactivity and personality concerns in a person.

Table 1

The state of application of the methods used in the diagnosis of borderline mental disorders for medical diagnostic purposes (in %)

The name of psychodiagnostic methods	Medical staff сонн (N=64)	Percentage of selections (%)	Medical University талабагари	Percentage of selections (%)
MMPI and its forms	4	6,25	-	-
Questionnaire "Minimult".	2	3,12	-	-



"Ink spots" test by G. Rorschach	3	4,68	-	-
Kraepelin's test	7	10,93	-	-
Cattell's 16 RG' survey forms	3	4,68	-	-
GRI Multifactorial Personality Questionnaire	2	3,12	-	-
Pathocharacterological personality questionnaire	6	9,37	2	1,62
(PShS A.E. Lichko)	4	6,25	3	2,43
Character accentuation test (Leongard-Shmishek)	28	43,75	10	8,13
Spielberger-Hanin test	4	6,25	4	3,25
Methodology for determining neuro-psychic instability and accentuation in personality	6	9,375	-	-!
Questionnaire for self-assessment of mental state (G. Eysenck)	4	6,25	3	2,43
Questionnaire for differential diagnosis of depression (V.A. Zhmurov)	2	3,12	-	-
Diagnostics of the level of emotional extinction (V.V. Boyko)	5	7,81	2	1,62
Diagnostics of aggressiveness (Bass-Dark)	7	10,93	3	2,43
Mental activity and emotional tone (N.A. Kurgansky, T.A. Nemchin)	5	7,81	3	2,43
Assessment of nervous and mental stress (T.A. Nemchin)	6	9,37	4	3,25
Methodology of differential diagnosis of depression (V. Zunge)	2	3,12	2	1,62
Express diagnostic method of neurosis (K. Heck and H. Hess)	6	9,37	1	0,81
Methodology of diagnosis of nervous and mental stress	2	3,12	-	-
Toronto Alexithymia Rating Scale	12	18,75	4	3,25
Mississippi scale	9	14,06	2	1,62
Neuroticism Level Diagnostic Questionnaire (L. I. Wasserman)	2	3,12	-	-

There are also guidelines for this methodology in the literature provided for local medical psychology. On the one hand, the methodology makes it possible to assess the susceptibility of patients to the influence of their anxiety about the disease and the results of treatment measures, and on the other hand, the role of the anxiety factor in the origin of diseases. It can be seen that the methodology serves for medical workers to draw conclusions about the anxiety they feel when treating patients. On the other hand, this methodology can be used to empirically study the significance of anxiety in the origin of the disease and the effectiveness of treatment in researches related to various fields of medicine and to obtain scientific conclusions. The second place was taken by the Mississippi scale (N.M.Kean, Dj.M.Keddel, K.L.Taylor) (18.75% and 3.25%). The full name of this scale is Mississippi Posttraumatic Stress

Disorder Rating Scale (PTSR). There was no specific information on the methodology used in Uzbek ethnocultural research. It was observed that the rest of the methods are used at a lower level in the activities of medical workers. Levels of students' awareness of methods at the stage of professional training were determined by a number of evaluation tools: MMPI and its forms, "Minimult" questionnaire and G. Rorschach's "Ink spots" test.

A number of criteria can be distinguished for the selection of diagnostic methods used in the field of diagnosis and psychometrics of psychosomatic diseases: identification of psychological risk factors for chronic somatic diseases (depression, hostility, high level of neuroticism, etc.); determination of psychological adaptation, psychopathological changes in patients with somatic diseases; determining psychological indicators of adherence



to prevention, treatment and rehabilitation; determination of psychological indicators of effectiveness of medical interventions; assessment of patients' psychological condition and quality of life as important aspects of the comprehensive assessment of the effectiveness of treatment, rehabilitation and prevention; methods of psychodiagnostics and psychometrics in somatic medicine, first of all, provide an assessment of the current psychological state, personality characteristics, as well as psychological aspects of the quality of life of patients.

In our research, a broad analysis of human mental disorders from the point of view of medicine and psychology was carried out. These analytical materials outline the approach from the perspective of neurotic disorders, character accentuation, behavioral and personality disorders. Also, within the framework of the study, the main criteria for the diagnosis of personality disorders were described.



Table 2
Results of the "Mini-mult" personal questionnaire of patients

Scales	General indicator		T-score	Male		T-score	Female		T-score	Student's t-test
	X	σ		X	σ		X	σ		
Age	52,20	15,60		51,50	13,33		53,04	18,10		1,609
Lie scale (L)	1,94	1,40	46	1,88	1,46	46	2,00	1,37	46	-0,404
Honesty Scale (F)	6,19	2,55	65	6,85	2,29	70	5,64	2,64	65	2,331*
Correction scale (K)	6,20	2,35	45	6,04	2,50	45	6,33	2,24	45	-0,580
Hypochondria (Hs)	7,19	2,90	48	7,09	3,22	48	7,27	2,65	48	-0,294
Depression (D)	7,69	2,69	54	8,19	3,10	54	7,29	2,25	50	1,608
Hysteria (Nu)	11,36	3,33	62	11,19	3,33	62	11,5	3,36	59	-0,457
Psychopathy (Pd)	8,70	2,93	47	9,26	3,10	47	8,25	2,74	40	1,659
Paranoid (Ra).	6,44	2,68	61	6,71	2,18	72	6,21	3,03	36	0,890
Psychasthenia (Pt).	8,43	2,69	26	8,69	2,99	31	8,21	2,43	26	0,918
Schizoid (Se)	9,74	3,76	38	10,42	3,97	42	9,17	3,52	35	0,827
Hypomania (Ma)	6,38	2,57	46	6,85	2,03	51	6,00	2,91	46	1,591

Note: * $p < 0,05$

Certain aspects of the diagnosis of personality disorders are intended to be carried out within the criteria of the five global directions of patient research as an extreme variant of the basic principles and characteristics of personality psychology. On this basis, a general classification of the methods used in the diagnosis of personality disorders was achieved. According to him, the violation of the dependence of the person; anxiety-related personality disorder; anankastic (pedantic) personality disorder; schizoid personality disorder; paranoid personality disorder; impulsive type or emotional-unstable personality disorder; cyclothymia; hysterical personality disorder; disassociative personality disorder; sexual disorders of the person; was divided into mixed personality disorders.

Based on the above considerations, at the next stage of the experiment, the students tested the "Mini-mult" questionnaire on different patients being treated in the clinic. The results are presented in Tables 2 and 3 below.

The results of the table were evaluated as the results of the students' testing of the "Mini-mult"

questionnaire on patients treated in clinics. According to the results of this survey, test subjects answered in the norm on the lie scale (L) (46T), the truthfulness scale (F) (65÷70T) and the correction scale (K) (45T). In healthy individuals, insincere responses are sometimes observed because the response to the questionnaire requires answering based on the values of the individuals. And the patients openly responded to the circumstances of their illness with a view to finding a cure.

In the indicators obtained in the studies, a difference was observed in only one case (fairness scale (F) (65÷70T)) of the test subjects. This indicator also reflected the standard value. The priority side of the indicators of the questionnaire "Mini-mult" is characterized by its applicability to both healthy and sick individuals.

The second direction of the results of the survey is devoted to the analysis of indicators obtained from the examination of various patient personalities (Table 3).

Patients suffering from various diseases - hypertension, diabetes, liver diseases,



cardiovascular diseases, brain diseases, brucellosis, gallstone diseases were taken into consideration. Here, it should be noted that in the analysis of empirical indicators related to the individuality of different patients, as well as gender characteristics, the values of the assessment and clinical scale

represented indicators in the range of 22÷72 T according to the T score.

The rating scales of the questionnaire for expressing personality profiles according to the category of diseases were limited to 42÷70T points.

Table 3
Different patient personality profile indicators

Scales		Age	Lie scale (L)	Honesty Scale (F)	Correction scale (K)	Hypochondria (Hs)	Depression (D)	Hysteria (Nu)	Psychopathy (Pd)	Paranoid (Ra)	Psychasthenia (Pt)	Schizophrenia (Se)	Hypomania (Ma)
Hypertension	X and T scores	46,20	2,60-62	6,80-70	6,80-48	6,80-48	7,80-54	9,80-51	8,80-44	6,80-66	9,40-31	8,20-31	7,00-51
	σ	11,51	0,89	1,92	0,83	1,92	3,03	4,20	2,94	1,92	2,60	4,14	2,12
Endocrine (diabetes mellitus)	X and T scores	59,25	1,92-46	6,88-70	7,07-48	7,29-48	7,48-50	11,07-55	9,00-44	6,92-66	8,11-26	10,5-42	7,33-51
	σ	10,18	1,639	2,42	2,54	3,30	2,42	2,82	2,51	3,04	2,00	3,23	3,38
Liver diseases	X and T scores	36,50	2,00-46	5,00-60	4,75-42	4,00-38	5,25-42	9,00-47	6,25-26	5,00-55	6,75-22	7,75-31	5,25-40
	σ	18,69	,816	2,44	1,50	2,16	1,70	3,74	3,30	2,44	3,30	1,70	3,30
Cardiovascular diseases	X and T scores	60,89	1,91-46	6,08-65	5,91-45	7,91-52	8,34-54	12,08-59	8,56-44	5,60-61	8,73-31	10,04-38	6,17-46
	σ	14,06	1,47	2,72	2,15	3,08	3,26	3,32	3,30	2,38	3,13	4,21	1,94
Brain diseases (stroke)	X and T scores	54,16	1,66-46	6,33-65	6,50-48	8,16-52	7,66-54	13,66-66	9,83-49	5,83-61	8,33-26	8,66-35	5,00-40
	σ	17,85	1,36	3,44	2,16	2,22	1,50	3,26	1,94	2,56	1,21	2,06	1,09
Infectious disease (brucellosis)	X and T scores	36,33	1,77-46	5,11-60	4,77-42	6,11-45	6,88-50	10,11-51	7,00-35	6,44-61	7,88-26	9,55-38	6,33-46
	σ	9,87	0,97	2,26	2,77	2,47	3,01	3,25	3,31	3,60	3,17	4,58	2,23
	X and T scores	41,88	2,55-50	7,00-70	7,22-48	6,55-48	9,11-57	11,55-59	10,00-49	8,44-72	9,11-31	10,33-38	6,22-46
	σ	10,78	1,74	1,73	2,48	2,60	3,01	3,94	2,78	1,58	3,14	2,82	1,56



According to the requirement of the normative indicator of the questionnaire, the rating scales had normal values. As well as the average value of the indicators of the test subjects by gender, the standard indicator was determined by the types of diseases. Patient characteristic profiles are interpreted, taking into account the focus on the interpretation of values above or below the norm according to the nature of the questionnaire. According to: hypertensive patients truthfully answered questionnaire questions on personality profile: lie scale (L) (46T), truthfulness scale (F) (70T) and correction scale (K) (48T) show values. As a general indicator, test takers indicate that they answered truthfully. This category causes to test subjects (Psychasthenia (Pt)-31 T): obsessive-phobic tendency, nervous, impressionable, general weakness. There were no abnormal values.

The case of using the questionnaire in the pilot test to clarify the research objectives was able to express a positive specificity. In the study, it was witnessed that empirical analyzes on the methodology used in the expression of susceptibility to mental disorders of a person can provide diagnostic indicators for both medical and psychological purposes.

Based on the results of the empirical study, the following conclusions were made regarding the questionnaire:

the questionnaire has the feature of individual and group application in healthy and sick individuals;

it is important to prepare clear methodological guidelines for the study of the local environment and field experts, and to study the questionnaire as

an educational material for the professional training of experts;

the questionnaire serves for the diagnosis of mental disorders specific to various patients;

it should not be overlooked that the questionnaire scales are separate and have the property of describing the interrelationship of diseases.

One of the researches in the direction of application characteristics of analytical and diagnostic methods of cognitive function disorders is devoted to the diagnosis of attention disorders. First, the results of applying the methodology authored by E. Krepelin in this direction were analyzed (Table 4).

According to the empirical indicators of the test, the average indicator of the patients tested on S1 was 56.96 ± 11.66 correctly performed actions and on S2 test it was 47.27 ± 12.87 correct actions. On the other hand, in healthy subjects, these indicators were as follows: the average indicator of S1 was 83.93 ± 10.39 correctly performed and the number of correctly performed actions was 79.01 ± 9.34 according to S2 test. There is a statistical difference between the obtained empirical indicators, that is, the difference between the indicators of healthy and sick subjects on S1 ($t = -11.771$) and S1 ($t = -7.759$) has a significance index ($r < 0.001$). In this case, the diagnostic feature of the Kraepelin test does not depend on subjective attitudes, like questionnaires or other methods, but serves to evaluate whether it is related to physical exhaustion, fatigue, changes in attention characteristics, or organic brain injuries. As a result, the following empirical values were obtained within the framework of activity efficiency of patients and healthy subjects.

Table 4
Performance of the Kraepelin test of patients and healthy subjects

Category of testers		X	σ	Student's t-test
Test phase				
S ₁	Patients (N=117)	56,96	11,66	-11,771***
	Healthy (N=62)	83,93	10,39	



S ₂	Patients (N=117)	47,27	12,87	7,759***
	Healthy (N=62)	79,01	9,34	

Note: *** p<0,001

One group of methods used for the diagnosis of disorders in cognitive functions is designed to study the characteristics of memory. In the classification of methods related to the diagnosis of cognitive disorders, A.R. Luria's "Memorizing 10 words" test, "Remembering numbers" test, "Visual

memory" test, and "Benton's visual retention" test are mentioned. Among them, A.R. Luria's "Memorization of 10 words" test is important. Attempts were made to rely on existing research when testing these methodologies (Table 5).

Table 5

Indicators of patients with impaired cognitive functions according to the "Memorization of 10 words" method

Diseases	Age	Tests					X	Score
		Series 1	Series 2	Series 3	Series 4	Series 5		
	51,36	4,11	3,66	3,77	3,66	2,77	3,55	2
Atherosclerosis	43,12	3,85	4	4,71	3,85	3,28	3,94	2
Stroke	28,71	4,75	5,37	5	4,37	4,62	4,82	2
Postpartum stress	37,47	4,5	4,33	4,83	4,5	3,5	4,32	2
Brain injury	48,21	4,7	4,9	5,4	5	4,7	4,94	2

There is a certain decrease in the indicators of the examinees according to the types of diseases in the 1st series and 5th series in the order of recalling the words. According to the characteristics obtained in the study, the characteristic of direct recall is changing. The genesis of asthenia in this category of patients can also occur under the influence of psychogenic and post-infectious factors. Their memory impairment is usually limited to the use of inappropriate words and deficits. This causes a decrease in memory recovery. Because of the progressive changes in memory impairment associated with cerebral atherosclerosis, recall, retention, and recall are difficult. Adequate recall is detected even before significant memory impairment. Thus, a patient who repeated 5 words after 10-14 repetitions, after a break of 15-20 minutes, reaches the level of being able to remember only a part of these words. Gradually, memory declines along with declines in recall. As a result of memory impairment, memory

impairment in patients with cerebral atherosclerosis coincides with the degree of cognitive impairment. In patients with cerebral atherosclerosis, the results of the "remembering 10 words" test are observed unevenly and with a decrease in the "recall curve".

This trend was not observed in stroke patients between series 1 (3.85) and series 5 (3.28). Memory impairment due to stroke is also common in daily observations. Part of the brain cannot function due to blood circulation disorders. Memory impairments in stroke patients also show regression rather than progression in word recall in the final series. It can be concluded that memory impairment in nonverbal stroke patients also affects thinking.

In this chapter, an empirical analysis of the implementation features of psychodiagnostic methods of psychosomatic diseases was also carried out (Table 6).



The indicators of female and male patients were non-parametric when determined according to the normal distribution. Differences between these empirical indicators were determined based on the Mann-Whitney test (U). There was a difference between the subjective control indicators of male and female patients regarding internalization of failure (43.37 and 32.56; $U=4.035$; $r<0.05$). It appears that female patients are more likely to attribute the causes of bad luck to external factors and forgive it more pitifully.

Also, in female and male patients, interpersonal relationship (43.40 and 33.71; $U=4.035$; $r<0.025$), illness and health internality (41.40 and 34.68; $U=4.127$; $r<0.05$) reliability differences were observed. So, it is possible to assess the impact of conflicts in interpersonal relationships and lack of attention to their own health and illness in the illness of psychosomatic patients.

Table 6
Indicators of the level of formation of subjective control in patients with psychosomatic diseases (by gender)

Scales	Point indicator	Average color		Based on the Mann-Whitney criterion (U)	p
		Male (N=42)	Female (N=42)		
General internality	24,61	39,55	38,34	0,056	0,813
Achievement is internal	4,19	40,26	37,49	0,324	0,569
Internality to failure	4,45	43,37	32,56	4,035	0,045*
Internality to family relationships	3,77	37,81	40,43	0,292	0,589
Internal to production	3,97	42,37	34,96	2,231	0,135
Interpersonal relationship	2,59	43,40	33,71	4,035	0,025*
Internality to illness and health	2,33	41,40	34,68	4,127	0,020*

Note: *- $p<0,05$

In order to improve the model of the implementation system of psychodiagnostic methods in medicine, the relations of experts in the

field of applying psychodiagnostic methods in the medical field were studied (Table 7).

Table 7
The need for mutual integration of psychology in the work of medical personnel

Criterion	Amount and percentage of medical personnel (N=64)							
	Depends		It depends in part		Not depends at all		didn't answer	
The relationship between medicine and psychology	53	82,81	7	10,93	2	3,12	1	1,56
There is a need for fields of psychology in solving	There is a need		Needs in part		Not needed at all		didn't answer	



medical problems	51	79,68	11	17,18	1	1,56	1	1,56
------------------	----	-------	----	-------	---	------	---	------

Empirical indicators were presented by the number and percentage of medical workers (respondents) involved in the research. According to the respondents, the following indicators were obtained when studying the relationship between medicine and psychology. According to the opinions of the examinees, 56 of them (82.81%) are related to medicine and psychology, 7 (10.93%) are partially related, 2 (3.12%) are completely unrelated, and 1 (1.56 %) did not answer at all. Empirical indicators indicate that most of the respondents have an interaction between medicine and psychology and that specialists working in the field of medicine can achieve the effectiveness of their activities through knowledge related to psychology. In turn, they expressed the need for the fields of psychology in solving medical problems as follows: 51 people

(79.68%) have a need, 11 people (17.18%) have a partial need, 1 person (1.56%) has no need, and 1 person and he did not answer. According to the answers of the respondents, there is a need for medical specialists to use the branches of psychology in their professional activities.

The relationships expressed in both paragraphs show that there is a need to use the science of psychology, in particular, medical psychodiagnostics in the field of medicine.

The next task in the research was to assess the state of application of medical psychodiagnostics in which fields of medicine exist (Table 8). According to the attitudes of the respondents, the use of medical psychodiagnostics in the following medical fields was determined.

Table 8

The state of the areas where medical psychodiagnostics are applied by medical personnel (N=64)

№	Medical fields	Number of medical personnel	Proportion of the sample that emphasized the use of medical psychodiagnostics (%)
1.	Psychiatry	36	56,26
2.	Psychosomatics	37	57,81
3.	Psychotherapy	42	65,62
4.	Endocrinology	18	28,12
5.	Neurosurgery	7	10,93
6.	Neurology	42	65,62
7.	Drug addiction	17	26,56
8.	Nervous diseases	35	54,68
9.	Medical pedagogy	8	12,5
10.	Plastic surgery	5	7,81
11.	Rheumatology	2	3,12
12.	Cardiology	3	4,68
13.	Therapy	1	1,56

In Uzbekistan, according to the attitudes of the respondents, medical psychodiagnostics are used purposefully in 13 areas. Indicators of the state of application of medical psychodiagnostics in the medical fields have the highest priority in psychotherapy and neurology, that is, 42 (65.62%) respondents think that they are used more in these

fields. Also, 37 (57.81%) respondents expressed the attitude that these fields are used in psychosomatics, 36 (56.26%) in psychiatry, 35 (54.68%) in neurology and medical psychodiagnostics. The introduction of medical psychodiagnostics was given a positive assessment by 1 (1.56%) respondents in therapy, 2 (3.12%) in



rheumatology and 3 (4.68%) respondents in cardiology. Empirical indicators show an uneven development in the implementation of medical psychodiagnostics in Uzbekistan. More emphasis is placed on areas of psychology that deal with patients with mental disorders.

In the study, it was observed that the integrative features of medicine and psychology in the improvement of the system of psychological diagnostics in medicine ensure the introduction of psychodiagnostics as an effective system that serves to ensure human health. For this reason, based on the results of theoretical and empirical studies in the research, a model for improving the system of introduction of psychodiagnostics in the field of medicine in Uzbekistan was developed.

Organizational stage. The structure of the model serves to clarify the important conditions for the introduction of psychodiagnostics in medicine. At this stage, it is determined by the need to study the existing international experiences in order to establish a psychodiagnostic course in the process of training specialists in medical educational institutions. The current system should ensure the share of medical psychodiagnostics along with medical diagnostics in the causes of diseases and the effectiveness of their treatment. In the practice of psychodiagnostic science, there are courses such as "Basics of psychodiagnostics", "Applied psychodiagnostics", "Practical in psychodiagnostics", "Medical psychodiagnostics", "Practical in pathopsychology", "Methods of neuropsychology", "Methods of medical psychology" in the training of specialists. According to the existing experience, it will be appropriate to introduce the course "Medical psychodiagnostics" for specialists who are being trained in the field of medicine in the formation of the system of psychological diagnosis. This is also combined with "Medical psychology" and "Clinical psychology", the point of contact between the sciences of medicine and psychology. The introduction of these courses serves to acquire theoretical knowledge and practical skills in the use of diagnostic evaluation tools that serve to use the possibilities of psychological diagnosis in the process of training specialists.

One of the main aspects of the second stage of the model is the formation of the curriculum content of the "Medical Psychodiagnostics" course. The integrative approaches of specialists play an important role in the development of this course. In the teaching of the developed course, it is taken into account the points of convergence of medicine and psychology, as well as the formation of the necessary qualification requirements for psychological diagnosis and professional competences of the specialist. The course will develop the characteristics of psychological diagnostic methods used in medical practice, their psychometric requirements and the characteristics of adaptation to the local environment, as well as criteria for ensuring compatibility with the characteristics of the disease and patients.

One of the important tasks of the organizational stage is the preparation of educational and methodological manuals for the use of psychodiagnostic methods by specialists in medical practice. This is one of the important factors of the effectiveness of the process of training specialists. In the practice of world psychology, there are manuals "Medical psychodiagnostics" and "Clinical psychometrics", which serve as a basis for preparing training manuals suitable for local conditions.

The third block of the model of introduction of medical psychodiagnostics is the "implementation stage", at this stage the existing experiences of medical psychodiagnostics are tested, and the implementation of medical psychodiagnostics experiences in clinical practice is fully ensured. As a result, it is possible to use them as supporting tools in the process of making a medical diagnosis for patients.

Another important aspect of this stage creates an opportunity to implement psychodiagnostic methods as a research method in research in the field of medicine. There are certain experiences in this regard in the research carried out in Uzbekistan. Psychodiagnostic methods serve as auxiliary tools for researchers in the field of medicine in the prevention of illness, attitude to treatment, determination of psychological causes and determination of treatment measures.



The fourth stage. In the first steps of this stage, it is intended to determine the perspective of medical psychodiagnostics. Popularization of achievements in medical psychodiagnostics is an important stage of the system. This system becomes one of the necessary measures for the treatment of patients in the field of medicine.

Conclusion

1. The demand for medical psychodiagnostics today has many factors in the modern life of society, which represent the relationship between the psychological causes of neuropsychiatric diseases, psychosomatic pathology, and somatopsychic diseases in general medical practice, brain damage, anomalous development in children and adolescents, behavioral deviations, etc., and medical treatment. . This means that medical psychodiagnostics is relevant in any field of medicine and solves its own tasks related to the tasks of a specific field of medicine.

2. The penetration of the achievements of medicine into psychology and psychology into medicine led to the formation of new approaches and principles of studying patients. Clinical psychodiagnostics at the intersection of the two disciplines has led to extensive research in the study of patient personality. In addition, obtaining qualitative data and developing new laws and approaches in the study of pathology, unusual aspects and human beings has become a major scientific issue.

3. The introduction of psychodiagnostics for the medical field in Uzbekistan indicates that the development of science has reached a new stage. In order to ensure its effectiveness, it is necessary to properly establish scientific relations between medicine and psychology specialists, integration of scientific achievements, training of medical psychodiagnostics, clinical psychometrics training courses in professional training of specialists, and training of medical psychologists as its main promoters.

4. In the treatment of patients with cognitive impairment, the diagnosis of its symptoms is primary. In such cases, information on risk factors for diagnosis, i.e. old age and old age, presence of disease symptoms in family history, vascular

dysfunction, diabetes mellitus, excess obesity and other factors, contributes significantly. Methods of psychodiagnostics of perception, memory, attention, thinking, speech and intelligence were systematized to determine the factors.

5. In order to achieve progress in the field of diagnosis of personality disorders in local conditions, the existing methods in the practice of psychodiagnostics and medical psychodiagnostics, multifactor personality questionnaires, multidimensional personality questionnaires, questionnaires for psychological diagnosis of personality disorders, accentuation of personality, diagnosis of anxiety level, diagnosis of depression, expressive diagnosis of mental states and systematization in the form of projective methods determined the order of their implementation.

6. When determining the causes of psychosomatic disorders, it is confirmed that the physiological states of the body are more closely related to the psyche, and if medical methods cannot determine the physical cause of the patient's illness, the symptoms are sought from the psyche of the individual. A person is considered to have a mental disorder, and the cause of the illness turns out to be anxiety, guilt, anger, depression, ongoing conflicts or long-term stress. Accordingly, there is a need for psychodiagnostic methods to ensure the completeness of medical diagnosis.

7. The "Mini-mult" questionnaire, applied as a sample of personality questionnaires in the diagnosis of personality disorders, was able to describe the nature and possibilities of psychodiagnostic methods that help medical diagnosis in this direction. The questionnaire served to describe the diagnosis of individual mental disorders, separate and interrelationships of various patients.

8. Although tools for diagnosis of disorders in cognitive functions are considered a direction with a broad structure in world psychology, there is a need to enrich experiences on their application in local conditions. The results of the application of Kraepelin's "Counting Table" and "Memorization of 10 words" tests in the diagnosis of memory characteristics in the attention characteristics of different patients confirmed that the methods can



be widely applied and serve to obtain reliable information about the direction.

9. The role of psychological knowledge in the field of medicine and the attitude of medical workers to the purposeful use of psychodiagnostic methods in Uzbekistan are positive, and the status of their introduction is used in psychiatry, psychosomatics, psychotherapy, neurosurgery, neurology, drug addiction, nervous diseases, medical pedagogy, plastic surgery, rheumatology, cardiology, therapy was determined. But according to empirical indicators, an uneven development was observed in the application of medical psychodiagnostics in medical practice in Uzbekistan.

10. Students' efforts to master psychodiagnostic methods have a positive relationship with their structure, field of application, purpose, implementation system. Even if there are difficulties in learning and applying the methods, the motivation to master them has priority. It is important to systematize the application of medical psychodiagnostics in the field in accordance with the aspirations of students.

11. The model for improving the system of introduction of psychodiagnostics in medicine expressed the overall structure of measures and tasks necessary for implementation in the field. This is an effective way to find a solution to the problems of introducing psychodiagnostic methods in medicine.

Recommendation

1. The following practical recommendations were given to improve the system of psychodiagnostic methods in medicine:

2. In order to improve the effectiveness of the diagnostic system in medicine, it is necessary to introduce teaching of medical psychodiagnostics or clinical psychometrics in the process of training specialists in higher medical education.

3. It is necessary to organize need-based short-term training courses for medical psychodiagnostics, taking into account the various stages of professional training of medical specialists and the characteristics of the field.

4. It is important to introduce the position of medical psychologist in family polyclinics in cooperation with medical staff to establish preliminary medical and psychological diagnostic activities.

5. In order to harmonize medical and psychological diagnostics, it is necessary to introduce integration between specialists.

6. It is important to organize republican and international scientific conferences for experts of both fields to find scientific solutions to local problems related to diagnostic issues.

7. In order to improve the introduction of psychodiagnostics in medicine, in the process of training medical psychologists and psychologists, to launch scientific and research work in clinical diagnostic directions.

References

1. Melibaeva R.N. Features of the Implementation of Psycho diagnostic Surveys in Clinics. // European multidisciplinary journal of modern science <https://emjms.academicjournal.io/index.php/> Volume: 4. 2022. P. 519-527.
2. Melibaeva R.N. Status and Prospects of Medical Psycho-Diagnostics in Uzbekistan. // International Journal of Multicultural and Multireligious Understanding. <http://ijmmu.com> editor@ijmmu.com ISSN 2364-5369 Volume 8, Issue 12 December, 2021. P. 555-565.
3. Мелибаева Р.Н. Особенности диагностики и психометрии психосоматических заболеваний. // Вестник интегративной психологии. 2022. Выпуск 26. ст.143-148. (19.00.00.№ 2)
4. Мелибаева Р.Н. Тиббий психодиагностиканинг методологик муаммолари. // Бердак номидаги Қорақалпоқ Давлат Университети Ахборотномаси. 2021. № 1. Б. 65-68. (19.00.00. № 9).
5. Мелибаева Р.Н. Болалардаги гиперфаоллик ва диққат танқислиги синдроми: сабаблари, психологик таъхиси. // Бола ва замон. Тошкент 2021.



- № 2. Б. 26-37. (19.00.00. № 1).
6. Мелибаева Р.Н. Тиббиётда психодиагностик методикаларини қўллаш муаммолари. // Педагогик маҳорат. 2022. № 3. 75-83. (19.00.00. № 11).
7. Мелибаева Р.Н. Шахс психик бузилишлари диагностикаси хусусиятлари. // Таълим ва инновацион тадқиқотлар. 2022 . № 11. Б. 169-176. (19.00.00. № 16).
8. Мелибаева Р.Н. Когнитив функциялар бузилишлари психодиагностикаси. // Бердак номидаги Қорақалпоқ Давлат университетининг Ахборотномаси. 2022. № 1. Б. 160-164. (19.00.00. № 9).
9. Мелибаева Р.Н. Соматик клиникада психологик диагностиканинг вазифалари. // Мактаб ва ҳаёт. 2022 . № 2-сон. Б. 30-32. (19.00.00. № 3).
10. Мелибаева Р.Н. Шахс психик бузилишлар диагностикаси юзасидан эмпирик ўрганиш натижалари. // Таълим ва инновацион тадқиқотлар. 2022 . № 10. Б. 268-277. (19.00.00. № 16).
11. Мелибаева Р.Н. Диққат бузилишлари психодиагностикаси. // Психология. 2022. № 3-сон. Б. 58-63. (19.00.00. № 5).
12. Melibayeva R. N. Tibbiyot xodimlari faoliyatida psixologiya fanining o'zaro integratsiyasiga bo'lgan zarurat. // Markaziy Osiyoda jamiyat, gender va oila. Xalqaro ilmiy jurnal. 2022. № 2 (3). Б. 75-78. (19.00.00. № 14).
13. Мелибаева Р. Н. Клиник амалиётда когнитив функциялар ва уларнинг бузилишлари психодиагностикаси. // Oriental Renaissance: Innovative, educational, natural and social sciences. 2022. Б. 928-931
14. Melibayeva R.N. The role of psychological diagnosis in clinical practice.// International Multidisciplinary Conference Hosted from Manchester, England. <https://conferencea.org/index.php/conferences/issue/view/15> 25th June 2022. Pages: 4-6.
15. Melibayeva R.N. Methods of research of disorders in thinking. // Theoretical aspects in the formation of pedagogical sciences. International scientific-online conference. <https://doi.org/10.5281/zenodo.7370369>. 2022. 1(6) 327-331.
16. Мелибаева Р.Н. Тиббий таълим муассаларида коронавирус пандемияси шароитида масофавий таълим жараёни самарадорлигининг оширишда профессор-ўқитувчилар фаолиятини педагогик-психологик жиҳатдан ташкил этиш хусусиятлари. // “Масофавий таълимни ташкил этишнинг педагогик-психологик жиҳатлари” мавзусидаги республика миқёсидаги илмий- амалий конференция. Тошкент давлат шарқшунослик университети. 2021. ноябрь. Б. 636-641.
17. Мелибаева Р.Н. Тиббий психодиагностиканинг тиббиёт ходимлари фаолиятида фойдаланиш хусусиятлари. // “Глобал дунёда психология фани: назария ва амалиёт, чақирувлар ва истиқболлар” мавзусидаги республика миқёсидаги илмий-амалий конференция. Мирзо Улуғбек номидаги ЎзМУ. 2022. 16 феврал. Б. 23-27.
18. Мелибаева Р.Н. Абдиназарова И.С. Тиббий психодиагностика: муаммо, мулоҳаза ва ечимлар. // Психология. Бухоро. 2020. №4. Б.68-74. (19.00.00. № 5). (19.00.00. № 5).