



URGANCH DAVLAT TIBBIYOT INSTITUTI
JANUBIY OROLBO‘YI TIBBIYOT JURNALI
2 - TOM, 3 - SON. 2026

14.00.00 - TIBBIYOT FANLARI ISSN: 3093-8740

UDK: 159.922.762

CLINICAL STRUCTURE AND PSYCHOCORRECTION OF ANXIETY-DEPRESSIVE
AND ANXIETY-PHOBIC DISORDERS IN PATIENTS WITH
POSTCHOLECYSTECTOMY SYNDROME



Ibadullayev Bekzod Bakhramovich – Associate Professor at the Department of Neurology, Medical Psychology and Psychotherapy, Urgench State Medical Institute, PhD (Urgench, Uzbekistan)
ORCID: 0009-0003-6759-5387
Elektron pochta: clinpsixolog@mail.ru



Kurbonboyev Siroj Kuvondik o'g'li - Assistant at the Department of Neurology, Medical Psychology and Psychotherapy, Urgench State Medical Institute (Urgench, Uzbekistan).
ORCID: 0009-0008-8125-4104
Elektron pochta: sirojbek3939@gmail.com

Abstract: *This article presents the assessment of the structure of anxiety-depressive and anxiety-phobic disorders in patients with developed cholecystectomy syndrome using psychometric questionnaires. Psychocorrection was carried out, and the pre- and post-treatment results were analyzed statistically.*

Keywords: *cholecystectomy syndrome, anxiety, depression, phobias*

POSTXOLESISTEKTOMIK SINDROMI BO‘LGAN BEMORLARDA XAVOTIRLI-
DEPRESSIV VA XAVOTIRLI-FOBİK BUZILISHLARNING KLINIK STRUKTURASI
HAMDA PSIXOKORREKSIYASI

Ibadullayev Bekzod Baxramovich

Urganch davlat tibbiyot instituti Asab kasalliklari, tibbiyot psixologiyasi va psixoterapiya kafedrasida dotsenti, PhD

Kurbonboyev Siroj Kuvondik o'g'li

Urganch davlat tibbiyot instituti Asab kasalliklari, tibbiyot psixologiyasi va psixoterapiya kafedrasida assistenti

Annotatsiya: *Ushbu maqolada rivojlangan postxolesistektomiya sindromi bo‘lgan bemorlarda xavotirli-depressiv va xavotirli-fobik buzilishlarning tuzilishi psixometrik so‘rovnomalarda yordamida baholandi. Psixokorreksiya o‘tkazildi hamda davolashdan oldingi va keyingi natijalar statistik tahlil qilindi.*

Kalit so‘zlar: *postxolesistektomiya sindromi, xavotir, depressiya, fobiyalar.*

КЛИНИЧЕСКАЯ СТРУКТУРА И ПСИХОКОРРЕКЦИЯ ТРЕВОЖНО-
ДЕПРЕССИВНЫХ И ТРЕВОЖНО-ФОБИЧЕСКИХ РАССТРОЙСТВ У ПАЦИЕНТОВ
С ПОСТХОЛЕЦИСТЭКТОМИЧЕСКИМ СИНДРОМОМ



URGANCH DAVLAT TIBBIYOT INSTITUTI JANUBIY OROLBO‘YI TIBBIYOT JURNALI

2 - TOM, 3 - SON. 2026

14.00.00 - TIBBIYOT FANLARI ISSN: 3093-8740

Ибадуллаев Бекзод Бахрамович

доцент кафедры нервных болезней, медицинской психологии и психотерапии Ургенчского государственного медицинского института, PhD

Курбанбоев Сирож Кувондик угли

ассистент кафедры нервных болезней, медицинской психологии и психотерапии Ургенчского государственного медицинского института

***Аннотация:** В данной статье представлена оценка структуры тревожно-депрессивных и тревожно-фобических расстройств у пациентов с развившимся постхолецистэктомическим синдромом с использованием психометрических опросников. Была проведена психокоррекция, а результаты до и после лечения были статистически проанализированы.*

***Ключевые слова:** постхолецистэктомический синдром, тревога, депрессия, фобии.*

According to WHO data, in today's developing era of civilization, the number of various diseases is also steadily increasing — one of which is biliary tract diseases. Among the main factors contributing to the development of these diseases is gallstone disease. It affects approximately 10–25% of the world's population and continues to spread widely, especially among the developed countries of Europe, America, and Asia. For example, the prevalence is 10–15% in Germany, 32% in Sweden, and nearly 1 million new cases are diagnosed annually in Russia. Gender-wise, the disease is four times more common in women than in men. In our country as well, the incidence among women has been found to be three times higher than that among men [1,3,2,4,5,16]. One of the current “gold standard” methods of treating this disease is cholecystectomy. While this procedure is one of the most widely used surgical methods worldwide, it also plays a role in the development of numerous postoperative complications [1,3,6,7,8]. Persistent abdominal pain is observed in 30–40% of patients after laparoscopic cholecystectomy [9,10,15]. Anxiety and depression are common among patients with cholelithiasis, functional dyspepsia, and irritable bowel syndrome (FD/IBS). Post-cholecystectomy, changes in glucose, insulin (and insulin resistance), lipid levels, and lipoproteins, along with the development of hepatic steatosis and metabolic syndrome, lead to the emergence of urgent medical and psychological issues [11,12,13,14].

As a result, it has become increasingly important to timely identify and correct psychological disorders in patients undergoing cholecystectomy, which calls for further scientific research in this area.

Objective: To determine the level of anxiety-depressive and anxiety-phobic disorders in patients with postcholecystectomy syndrome and to conduct psychocorrection.

Materials and Methods: A total of 60 patients (mean age 45.3 ± 2.1 years) diagnosed with postcholecystectomy syndrome accompanied by psycho-emotional disorders were examined at the clinic of the Tashkent Medical Academy, Urgench branch. The somatic condition of the patients was assessed based on their presenting complaints upon admission, anamnesis, objective and subjective evaluations, as well as paraclinical data. To assess the patients' mental status, a special medical-psychological questionnaire was used. The following psychometric assessments were utilized to evaluate the type and severity of psycho-emotional disorders:

In order to identify the structure of anxiety-depressive and anxiety-phobic disorders observed in our patients, the Hospital Anxiety and Depression Scale (HADS) and the AP-express questionnaire for anxiety-phobic disorders were employed.

For the purpose of correcting the identified psycho-emotional disorders, patients were randomly divided into two groups:



URGANCH DAVLAT TIBBIYOT INSTITUTI JANUBIY OROLBO‘YI TIBBIYOT JURNALI 2 - TOM, 3 - SON. 2026

14.00.00 - TIBBIYOT FANLARI ISSN: 3093-8740

In our study, the psychocorrection of emotional disorders was carried out with patients divided into two groups:

1. Main group (n=30): Received standard therapy combined with cognitive-behavioral psychotherapy.
2. Comparison group (n=30): Received standard therapy in combination with psychoeducational therapy, both conducted on an outpatient basis for a duration of 2 months.

The results obtained were subjected to statistical analysis and structured accordingly.

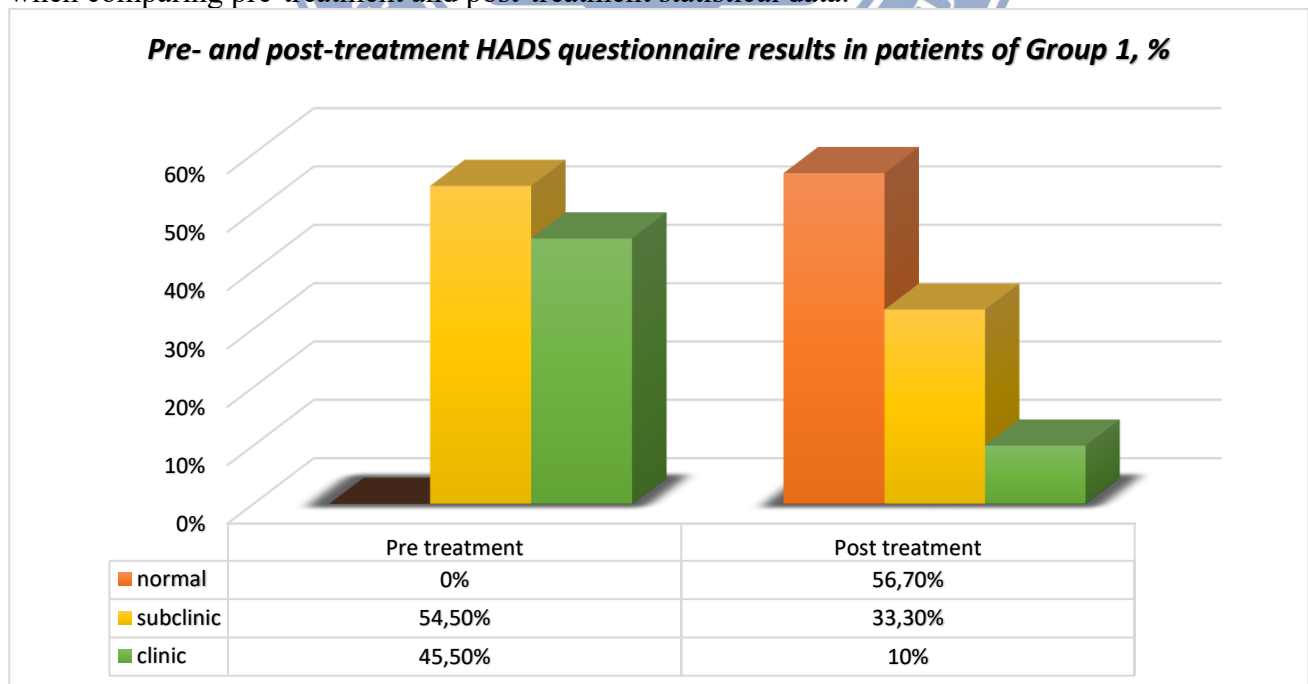
Among the psychotherapeutic methods used, psychoeducational therapy and cognitive-behavioral therapy (CBT) were selected. The distribution of patients between the groups was as follows (Table 1).

	1-group		2-group		Total	
	abs.	%	abs.	%	abs.	%
Men	18	60	17	56,7	35	58,3
Women	12	40	13	43,3	25	41,7
Age	45,1±1,0		45,1±1,1		45,3±2,1	

According to the data, in Group 1, 18 patients (60%) were male and 12 patients (40%) were female, with a mean age of 45.1 ± 1.0 years. In Group 2, 17 patients (56.7%) were male and 13 patients (43.3%) were female, with a mean age of 45.3 ± 2.1 years.

During the analysis of the obtained data, statistical methods were applied, including percentage analysis, Student's *t*-test, and *p*-value calculation to assess the significance of the results. The findings were considered statistically significant at $p < 0.05$.

Results: Psychometric evaluations conducted on the patients revealed the following outcomes when comparing pre-treatment and post-treatment statistical data:



According to the data, in the main group of patients (n=30), 54.5% (n=16) were found to have subclinical levels of anxiety-depressive disorders (score: 8 ± 1.3), and 45.5% (n=14) had a high level (score: 11 ± 1.5), with no statistically significant difference ($p > 0.05$) before the intervention. After



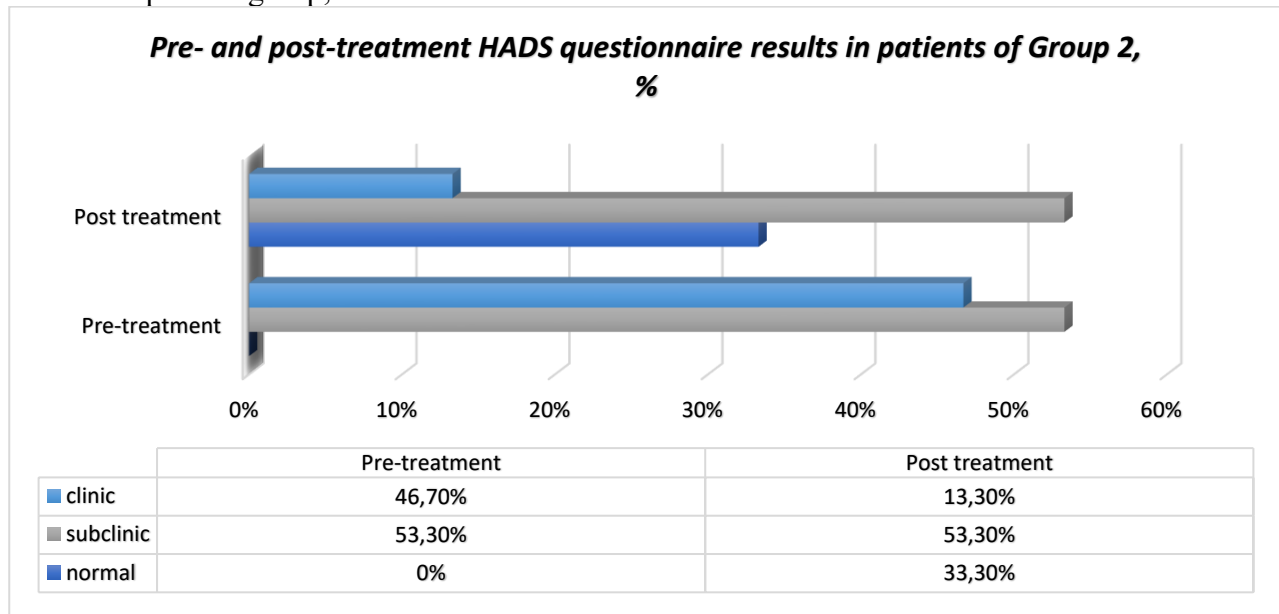
URGANCH DAVLAT TIBBIYOT INSTITUTI JANUBIY OROLBO‘YI TIBBIYOT JURNALI

2 - TOM, 3 - SON. 2026

14.00.00 - TIBBIYOT FANLARI ISSN: 3093-8740

the conducted psychocorrection, specifically cognitive-behavioral therapy, the following changes were observed in the same group (n=30): 56.7% (n=17) of patients showed normal or mild levels (score: 5 ± 1.4), 33.3% (n=10) had subclinical levels (score: 8 ± 1.2), and only 10% (n=3) remained at a high level (score: 11 ± 1.0), with the changes being statistically significant ($p < 0.05$).

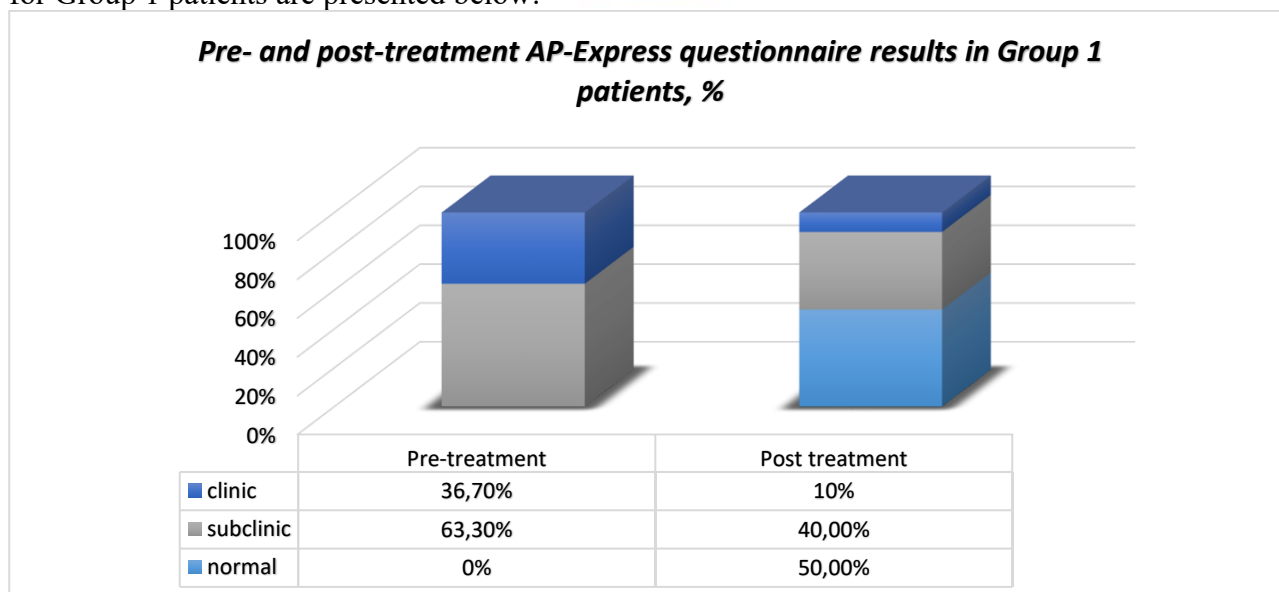
In the comparison group, the results were as follows:



In the comparison group (n=30), 53.3% (n=16) of patients were identified with subclinical levels of anxiety-depressive disorders (score: 8 ± 1.5), and 46.7% (n=14) with a high level (score: 11 ± 1.0), with no statistically significant difference ($p > 0.05$) before treatment.

After undergoing psychoeducational psychotherapy, the correction results showed the following distribution among patients (n=30): 33.3% (n=10) had normal or mild levels (score: 5 ± 1.2), 53.3% (n=16) had subclinical levels (score: 8 ± 1.0), and 13.3% (n=4) still showed a high level of anxiety-depressive symptoms (score: 11 ± 1.1), with changes being statistically significant ($p < 0.05$).

When analyzing the results of our second psychometric assessment, namely the AP-express questionnaire for identifying anxiety-phobic disorders, the outcomes were as follows. The indicators for Group 1 patients are presented below:





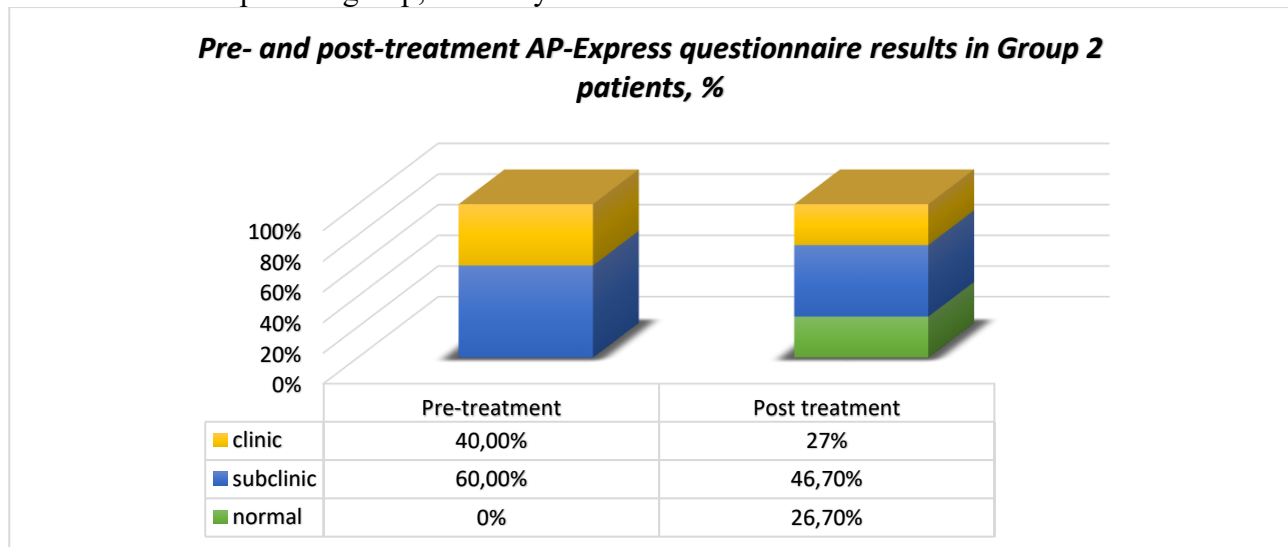
URGANCH DAVLAT TIBBIYOT INSTITUTI JANUBIY OROLBO‘YI TIBBIYOT JURNALI

2 - TOM, 3 - SON. 2026

14.00.00 - TIBBIYOT FANLARI ISSN: 3093-8740

In the main group (n=30), the AP-express questionnaire results were analyzed before and after treatment. According to the pre-treatment data: 63.3% (n=19) of patients were identified with subclinical levels of anxiety-phobic disorders (score: 9 ± 1.5), and 36.7% (n=11) had high levels (score: 16 ± 1.4). Following cognitive-behavioral psychotherapy, the post-treatment evaluation in the main group (n=30) showed: 50% (n=15) of patients had normal or mild levels (score: 6 ± 1.2), 40% (n=12) had subclinical levels (score: 10 ± 1.1), and only 10% (n=3) remained at a high level (score: 15 ± 1.1), indicating a significant improvement.

In the comparison group, the analysis of these indicators was as follows:



In the comparison group (n=30), the results of the psychometric evaluations revealed that prior to treatment: 60% (n=18) of patients exhibited subclinical levels of anxiety-phobic disorders (score: 10 ± 1.1), and 40% (n=12) showed a high level (score: 16 ± 1.0), with no statistically significant difference ($p > 0.05$).

After the psychoeducational psychotherapy intervention, post-treatment analysis showed: 26.7% (n=8) of patients had normal or mild levels (score: 7 ± 0.9), 46.7% (n=14) had subclinical levels (score: 10 ± 1.3), and 26.7% (n=8) continued to present with a high level (score: 15 ± 1.1) of anxiety-phobic symptoms. Based on the obtained results, it can be concluded that in both groups of patients, the structure of anxiety-depressive and anxiety-phobic disorders prior to the intervention showed the presence of both subclinical and high clinical levels, with no significant statistical difference between the groups ($p > 0.05$).

However, after treatment, the main group showed a significantly greater reduction in the levels of depression, anxiety, and phobic symptoms compared to the comparison group, indicating the higher effectiveness of cognitive-behavioral psychotherapy ($p < 0.05$).

Conclusion:

Based on the analysis conducted, it can be concluded that timely psychometric evaluation of the mental state of patients with somatic diseases allows for the early identification of psychological factors that significantly influence the course of the illness. In turn, the integration of medical-psychological correction with ongoing therapeutic interventions not only positively affects the quality of life of patients but also helps prevent the development of serious complications. In our study, cognitive-behavioral psychotherapy applied to patients with postcholecystectomy syndrome demonstrated greater effectiveness in improving their psychological state compared to psychoeducational therapy. This method significantly reduced levels of depression, anxiety, and phobic disorders, and its combination with standard treatment protocols showed high therapeutic efficacy during the follow-up period.



URGANCH DAVLAT TIBBIYOT INSTITUTI JANUBIY OROLBO‘YI TIBBIYOT JURNALI

2 - TOM, 3 - SON. 2026

14.00.00 - TIBBIYOT FANLARI ISSN: 3093-8740

REFERENCES

1. Бенклян Н. А. Опыт психокоррекции образа тела в реабилитации больных после холецистэктомии //Известия высших учебных заведений. Уральский регион. – 2015. – №. 6. – С. 96-99.
2. Бурак А. Г. и др. Влияние холецистэктомии на когнитивные функции, психоэмоциональное состояние, вегетативные реакции и качество жизни пациентов с хроническим калькулёзным холециститом //Матер. конф. молодых ученых, посвящ.памяти проф.АА Туревского. – 2014. – С. 59-60.
3. Вахрушев Я. М., Хохлачева Н. А., Сергеева Н. Н. Психоэмоциональное состояние и вегетативный статус больных при желчнокаменной болезни //Терапевтический архив. – 2017. – Т. 89. – №. 4. – С. 64-68.
4. Величко Е. А. и др. Оценка качества жизни пациентов пожилого и старческого возраста после различных видов холецистэктомии по поводу острого деструктивного холецистита //Вестник Ивановской медицинской академии. – 2015. – Т. 20. – №. 4. – С. 28-33.
5. Гулов М. К., Мумин С. А. Когнитивные дисфункции в отдалённом периоде у пациентов среднего, пожилого и старческого возрастов после холецистэктомии //Вестник Авиценны. – 2019. – Т. 21. – №. 1. – С. 60-65.
6. Давыдкин В. И. и др. Сравнительная оценка качества жизни пациентов после холецистэктомии в зависимости от вида доступа и характера течения заболевания //Актуальные проблемы медицины. – 2020. – Т. 43. – №. 3. – С. 441-454.
7. Agathis AZ, Aalberg JJ, Garvey A, Divino CM. Assessing long term quality of life in geriatric patients after elective laparoscopic cholecystectomy. Am J Surg. 2020 Jun;219(6):1039-1044.
8. Atif QAA, Khan MA, Nadeem F, Ullah M. Health-Related Quality of Life After Laparoscopic Cholecystectomy. Cureus. 2022 Jul 11;14(7):e26739.
9. Chen X, Luo H, Ye M. Depressive symptoms were associated with an elevated prevalence of gallstones among adults in the United States: A cross-sectional analysis of NHANES 2017-2020. Prev Med Rep. 2024 May 24;43:102771.
10. Daliya P, Gemmill EH, Lobo DN, Parsons SL. A systematic review of patient reported outcome measures (PROMs) and quality of life reporting in patients undergoing laparoscopic cholecystectomy. Hepatobiliary Surg Nutr. 2019 Jun;8(3):228-245.
11. Deborah YA, Haridoss M, Natarajan M, Joshua V, Bagepally BS. Health-related quality of life among patients with gallstone disease: a systematic review and meta-analysis of EQ-5D utility scores. Qual Life Res. 2022 Aug;31(8):2259-2266.
12. Doğan C, Borazan E, Yılmaz L, Balık AA. How much is the long-term quality of life impaired in cholecystectomy-related biliary tract injury? Turk J Surg. 2023 March
13. Ibadullayev B.B. Screening of Psychoemotional Disorders in Patients with Second Type of Diabetes - A New Psychodiagnostic Approach to Typical Diagnosis and Treatment// American Journal of Medicine and Medical Sciences 2022, 12(4): 399-403
14. Ibadullayev B.B. Medical-Psychological Approach to the Correction of Adaptation Disorders Developed in Patients with Second Type of Diabetes// American Journal of Medicine and Medical Sciences 2022, 12(5): 481-486,
15. Kurbonboyev S.K, Ibadullayev B.B. Postcholecystectomy syndrome development in patients with gallstone disease: a systematic review and meta-analysis of EQ-5D utility scores. Modern digital technologies in education: problems and prospects, 26-27-b, Polsha-2025
16. World Health Organization. (2023). *Mental health and noncommunicable diseases*. Geneva: WHO Publications.