

TYPE 2 DIABETES MELLITUS, EXACERBATION OF PERSONALITY CHANGES CHARACTERISTICS

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Abstract. This article describes a high level of polymorphism of mental disorders in patients who are resorting to preventive institutions in the body. According to the WHO, more than half of patients with moderate to severe somatic diseases have some kind of mental illness. High prevalence of somatic and mental disorders, chronic course, polyethiology, polymorphism make diabetes the most appropriate model for the study and systematization of mental disorders in somatic patients.

Key words: diabetes, personality change, polymorphism, quality of life, metabolic, neuroticism.

Diabetes is a heterogeneous disease that can lead to severe diseases that have a significant emotional impact. The International Diabetes Federation (IDF) estimates that in 2017, about 425 million adults between the ages of 2 and 79 had diabetes, and that number is estimated to increase to 629 million by 2045 [1]. Although diabetes is an international health crisis, its prevalence is growing faster in low-and middle-income countries [2].

In recent decades, research has focused on mental disorders associated with diabetes. People with diabetes may have twice the incidence of anxiety and depressive disorders. These mood disorders are associated with Suboptimal diabetic



self-care, unhealthy behavior, high hba1c, and other Suboptimal metabolic rates [4,5,6].

Evidence suggests a double link between diabetes, anxiety, and depressive disorders. Patients with anxiety symptoms may have an increased risk of developing Type 2 diabetes and vice versa [7]. The development of anxiety disorders in patients with diabetes can be facilitated by various factors, including personal and family history, stressful life events, drug use, and somatic diseases [7]. Diabetes and depression can be similar or stem from General etiology, or having one condition can increase the prevalence of another [8]. Risk factors that can contribute to the development of depression in patients with diabetes are personal and family history, stressful life events, domestic violence, physical illnesses, and clinical factors [8,9,10,11]. Personality traits and quality of life (CF) may affect the development and severity of mental illness in diabetic patients, but this has not been extensively studied.

The purpose of the study. To study the features of the comorbid course of anxiety, depressive disorders and personality pathology in people with Type 2 diabetes.

Research materials and methods. The study used cross-sectional design. Sample size was calculated based on previous estimates of depression prevalence and overall anxiety disorder in patients with diabetes [13, 14]. The required sample size was 92 people. The average age of the participants was 52 ± 3.4 years all participants who were diagnosed with depression and anxiety disorders were sent to the dispensary Department of the Samarkand Regional Psychiatric Hospital for further examination.

Clinical variables include disease history, diabetes history (onset, type, and application of insulin therapy), body mass index (BMI), and self-assessment in

diabetes management (assessed using a five-point Likert scale). The data from the survey was supplemented with a review of the medical records of patients, if necessary. In addition, participants were assigned a seven-part general anxiety disorder scale (GAD-7) to assess anxiety prevalence, A Beck-II depression survey (BDI-II), a big five survey (BFI) to assess depression prevalence. To assess personal qualities and the quality of life of the World Health Organization-BREF (WHOQOL-BREF) to measure the quality of life (QOL).

Research results. Most of the participants were diagnosed with Type 2 diabetes ($n = 69$; 75%) and gestational diabetes ($n = 23$; 25%). The average duration of diabetes was 14 years, with an average hba1c measurement of 7.6%. Almost half of the participants received insulin therapy ($n = 44$; 47.8%).

A study with GAD-7 found that only a small percentage of participants experienced anxiety (9%, $n = 8$), while BDI-II screening showed that a relatively large proportion of participants suffered from depression (84.7%; $n = 78$). In the BFI assessment, the median of extraversion was 3.38, compliance was 3.78, conscientiousness was 3.67, neuroticism was 2.50, and openness was 3.30. The Whoqol - BREF study found that the average assessment for physical health was 14.29, psychological assessment was 15.33, social relationship assessment was 16.00, and environmental assessment was 15.00.

— There are four demographics associated with depression ($p < 0.25$). for example, age, work status, family income, and regular religious practice. There was no meaningful correlation between social traits and depression among participants. Some clinical features, personality traits, and life quality components are associated with depression. Variables associated with depression include self-assessment in diabetes management, anxiety, overall perception of quality of life, overall health perception, physical quality of life, psychological quality of life, social quality of

Life, Environmental Quality, extraversion, politeness, conscientiousness, and neuroticism, as well as the interaction between perceived social support and neuroticism.

Depressed participants with high levels of neuroticism were more likely to have anxiety. Conversely, low likelihood of anxiety was associated with high psychological scores and high conscientiousness rates in the quality of life survey. Other demographic characteristics, personality traits, and components of quality of life were not important predictors of anxiety among participants. The logistic regression model reported that Cox and Snell's R^2 was 0.29 ($p < 0.001$), Hosmer-Lemeshow's compromise criteria were not significant ($p = 0.843$), and the area under the Roc curve (AUC) was 0.949 (95%). $CI = 0.912-0.986$, $p < 0.001$, which indicates an acceptable model fit to differentiate participants from the presence and absence of anxiety.

The only clinical factor associated with high capacity. depression was anxiety, which increased the frequency of depression by almost 20 times. Conversely, older, higher quality of life in terms of physical health, and higher social quality of life were associated with a lower likelihood of developing depression. The approximate management of diabetes, other demographic characteristics, personal characteristics and components of quality of life did not reliably predict depression among participants. The logistic regression model Cox and Snell's R^2 s showed acceptable model consistency to differentiate participants from the presence and absence of depression.

The ADAPT-DM study aims to identify the prevalence and associated factors of depression and anxiety in patients with diabetes mellitus. Our results show that neuroticism and depression increase the likelihood of developing anxiety by almost 12 and 10 times, respectively. The good psychological quality of life and high

consciousness protected it from anxiety, which reduced it by half (0.47 and 0.45 times, respectively). In our study, the occurrence of depression significantly increased the likelihood of anxiety. The positive relationship between depression and anxiety is well documented in chronic diseases, and the occurrence of depression can increase the risk of anxiety symptoms in patients with chronic diseases [8,9].

This correlation is expected because some theories suggest that anxiety and depression have the same neurobiological mechanism, in which they represent different phenotypic manifestations that occur in constancy. The high quality of life associated with physical health and the high quality of life associated with social relationships reduced the occurrence of depression by 0.69 and 0.84 times, respectively. First, this study was carried out in one specialized medical center. Therefore, it is impossible to convey the results to all diabetic residents of the country. Second, the cross-design of the study fails to determine the causal relationship between related factors, depression, and anxiety. Thirdly, symptoms of depression and anxiety were measured by self-assessment tools rather than diagnostic interviews, which could affect the reliability of classifying participants into depressive and anxious groups. Fourth, chronic pain is a common symptom in patients with diabetes mellitus, and it often coexists and interacts with anxiety and depression in these people.

— **Conclusions.** Comorbid depression and high neuroticism increased the likelihood of developing anxiety. The high psychological quality of life and high conscientiousness prevented the appearance of anxiety. Shared anxiety has increased the likelihood of developing depression, older age, higher quality of life associated with physical health, and higher quality of life associated with social relationships have protected against depression.

Our findings suggest that personality traits and quality of life screening are necessary to manage anxiety and depression for a holistic approach to treating diabetes.

List of references:

1. Batirbekovich, K. R., Sabrievna, V. A., & Alamovich, K. A. (2022). Psychopharmacotherapy of Depressive Disorders in Alcoholism. Eurasian Journal of Humanities and Social Sciences, 8, 19-22.
2. Khayatov , R. B., Velilyaeva , A. S., & Kurbanov , A. A. (2022). OPTIMIZATION OF THERAPY OF ALCOHOL WITHDRAWAL SYNDROME IN PATIENTS WITH SUB- DEPRESSION. Евразийский журнал медицинских и естественных наук, 2(5), 189–192.
3. Khayatov , R. B., Velilyaeva , A. S., & Kurbanov , . A. A. (2022). AFFECTIVE DISORDERS AS A WEIGHTENING FACTOR IN ALCOHOL DEPENDENCE THERAPY . Евразийский журнал медицинских и естественных наук, 2(5), 193–196.
4. Telmanovna, X. S., & Batirbekovich, X. R. (2023). Psychopharmacotherapy of Depressive Disorders in Alcoholism. Eurasian Research Bulletin, 16, 179-182.
5. N. Turaeva (2023). CLINICAL-LABORATORY FEATURES OF INTERSTITIAL NEPHRITIS IN CHILDREN WITH PURINE DYSMETABOLISM. Science and innovation, 2 (D12), 135-140. doi: 10.5281/zenodo.10324931
6. N. Turaeva (2023). ANTIOXIDANT THERAPY IN PATIENTS WITH CHRONIC NEPHROTIC GLOMERULONEPHRITIS. Science and innovation, 2 (D12), 131-134. doi: 10.5281/zenodo.10324779
7. Меликова Дилшодахон Уктам Кизи, Ахмеджанова Наргиза Исмаиловна, Тураева Назира Юлдашевна, Юлдашев Ботир Ахматович, & Абдурасулов Фозил Пардаевич (2020). Клинические особенности течения хронического пиелонефрита у детей на фоне анемического синдрома. Достижения науки и образования, (1 (55)), 66-69.
8. Очилов, У., Кубаев, Р., & Хаятов, Р. (2016). Психические расстройства при употреблении психоактивных веществ с вич-инфекцией. Журнал проблемы биологии и медицины, (2 (87), 184–186.
9. Раджабов Хикмат Тошевич, Хаятов Рустам Батырбекович, & Велиляева Алие Сабриевна (2020). КЛИНИКО-ПСИХОЛОГИЧЕСКИЕ И НЕЙРОФИЗИОЛОГИЧЕСКИЕ ОСОБЕННОСТИ НЕПСИХОТИЧЕСКИХ

ПСИХИЧЕСКИХ РАССТРОЙСТВ У ЛИЦ ПОЖИЛОГО ВОЗРАСТА. Вестник науки и образования, (23-3 (101)), 75-78.

10. Раджабов Х.Т., Тургунбаев А.У., Кубаев Р.М., & Хаятов Р.Б. (2021). ДЕПРЕССИЯ И ТРЕВОГА У БОЛЬНЫХ АЛКОГОЛИЗМОМ, ОСЛОЖНЕННЫМ НИКОТИНОВОЙ ЗАВИСИМОСТЬЮ. Вестник науки и образования, (17-2 (120)), 134-137.

11. Тураева Назира Юлдашевна (2020). Клинико-лабораторные особенности течения дисметаболической нефропатии у детей с нарушением пуринового обмена. Достижения науки и образования, (5 (59)), 86-88.

12. Тураева, Н., & Абдукадырова, Н. (2022). Оптимизация терапии хронического гломерулонефрита у детей. Журнал вестник врача, 1(2), 118–120.

13. Хаятов Рустам Батырбекович, Велиляева Алие Сабриевна, Тураев Бобир Темирпулатови, & Тураев Толиб Махмуджонович (2019). Аффективные расстройства у больных алкогольной зависимостью как фактор риска развития суицидального поведения. Достижения науки и образования, (11 (52)), 96-98.

14. Хаятов Рустам Батырбекович, & Велиляева Али Сабриевна (2020). Особенности развития и течения аффективных расстройств при сахарном диабете. Достижения науки и образования, (5 (59)), 62-64.

15. Хаятов Рустам Батырбекович, Велиляева Алие Сабриевна, & Абдуразакова Робия Шералиевна (2020). Особенности возникновения и течения психоорганических расстройств при сахарном диабете. Достижения науки и образования, (7 (61)), 31-33.

16. Хаятов, Р., & Велиляева, А. (2022). Влияние тревожно-депрессивных расстройств на тяжесть течения и качество жизни у больных сахарным диабетом 2 типа. Журнал вестник врача, 1(4), 99–102. <https://doi.org/10.38095/2181-466X-2020974-98-101>

17. Хаятов, Р., Велиляева, А., Мардиев О., & Курбанов, А. (2022). Особенности коморбидного течения тревожно-депрессивных расстройств и личностных изменений при сахарном диабете 2 типа. Журнал вестник врача, 1(1), 104–108. <https://doi.org/10.38095/2181-466X-2021981-103-107>

18. Каршиев Зиядулло Хазратович, Хаятов Рустам Батырбекович, Шерматов Озод Норбекович, Раджабов Хикмат Тошевич, & Рузиева Диана Джамаловна (2021). АФФЕКТИВНЫЕ РАССТРОЙСТВА КАК ОТЯГОЩАЮЩИЙ ФАКТОР В ТЕРАПИИ АЛКОГОЛЬНОЙ ЗАВИСИМОСТИ. Вестник науки и образования, (5-2 (108)), 21-24.

19. Хаятов, Р., Велиляева, А., Мардиев О., & Курбанов, А. (2022). Особенности коморбидного течения тревожно-депрессивных расстройств и личностных

- изменений при сахарном диабете 2 типа. Журнал вестник врача, 1(1), 104–108.
<https://doi.org/10.38095/2181-466X-2021981-103-107>
20. Очилов, У., Кубаев, Р., & Хаятов, Р. (2016). Психические расстройства при употреблении психоактивных веществ с вич-инфекцией. Журнал проблемы биологии и медицины, (2 (87), 184–186. извлечено от https://inlibrary.uz/index.php/problems_biology/article/view/3568
21. Раджабов Х.Т., Тургунбаев А.У., Кубаев Р.М., & Хаятов Р.Б. (2021). ДЕПРЕССИЯ И ТРЕВОГА У БОЛЬНЫХ АЛКОГОЛИЗМОМ, ОСЛОЖНЕННЫМ НИКОТИНОВОЙ ЗАВИСИМОСТЬЮ. Вестник науки и образования, (17-2 (120)), 134-137.
22. Хаятов, Р., & Абдуразакова, Р. (2023). Аффективные расстройства, как отягощающий фактор в терапии алкогольной зависимости . Журнал биомедицины и практики, 1(3/1), 396–399. извлечено от <https://inlibrary.uz/index.php/biomedicine/article/view/18375>
23. Мардиев, О. ., & Хаятов, Р. (2023). КОМОРБИДНОСТЬ ДЕПРЕССИВНЫХ РАССТРОЙСТВ И САХАРНОГО ДИАБЕТА 2-го ТИПА НА КАЧЕСТВО ЖИЗНИ БОЛЬНЫХ ПОЖИЛОГО ВОЗРАСТА. *Евразийский журнал медицинских и естественных наук*, 3(8), 19–24. извлечено от <https://in-academy.uz/index.php/EJMNS/article/view/19616>
24. Николаев Егор Евгеньевич, Орлов Федор Витальевич, Николаев Евгений Львович, Велиляева Алие Сабриевна, & Хаятов Рустам Батырбекович (2023). ФЕНОМЕН СИМУЛИРОВАНИЯ СУДОРОЖНЫХ ПРИСТУПОВ ПРИ ЭПИЛЕПСИИ: КЛИНИЧЕСКИЙ СЛУЧАЙ. *Acta Medica Eurasica*, (3), 102-115. doi: 10.47026/2413-4864-2023-3-102-115
25. Criteria For Rehabilitation Of Patients With Consequences Cranio-Brain Injury. (2022). *Journal of Pharmaceutical Negative Results*, 8188-8194. <https://doi.org/10.47750/pnr.2022.13.S09.958>
26. Хаятов, Р. Б., & Велиляева, А. С. НЕЙРОПСИХОЛОГИЧЕСКОЕ ИССЛЕДОВАНИЕ БОЛЬНЫХ С РАССЕЯННЫМ СКЛЕРОЗОМ. ДОКТОР АХБОРОТНОМАСИ ВЕСТНИК ВРАЧА DOCTOR’S HERALD, 44.
27. Мардиев Отабек Аслиддинович, Кубаев Рустам Мурадиллаевич, Хаятов Рустам Батырбекович, & Рузиева Диана Джамаловна (2021). ТЕЧЕНИЕ ТРЕВОЖНЫХ РАССТРОЙСТВ У БОЛЬНЫХ САХАРНЫМ ДИАБЕТОМ 2 ТИПА. Вестник науки и образования, (2-2 (105)), 72-75.
28. Велиляева, А., Бердиева, Н., Очилов, У., & Хаятов, Р. (2015). Психические нарушения при эпилепсии. Журнал проблемы биологии и медицины, (2 (83)), 168-171.

29. Депрессия и тревога у больных алкоголизмом, осложненным никотиновой зависимостью / Х. Т. Раджабов, А. У. Тургунбаев, Р. М. Кубаев, Р. Б. Хаятов // Вестник науки и образования. – 2021. – № 17-2(120). – С. 134-137. – EDN GSEZVQ.
30. Turaeva, N. Y., & Yuldashev, B. A. (2018). KLINIKO-LABORATORNYE POKAZATELI INTERSTITSIAL'NOY PATOLOGII POCHEK U DETEY V STRUKTURE DISMETABOLICHESKIKh NEFROPATIY. Молодежный инновационный вестник, 7(S1), 99-100.
31. Тураева, Н. Ю. Клинико-лабораторные показатели интерстициальной патологии почек у детей в структуре дисметаболических нефропатий / Н. Ю. Тураева, Б. А. Юлдашев // Молодежный инновационный вестник. – 2018. – Т. 7, № S1. – С. 99-100. – EDN YXJTТА.
32. Turaeva Nazira Yuldashevna, & Mamatkulova Feruza Khamidovna. (2024). PREMORBIDE FEATURES OF INTERSTITIAL NEPHRITIS CURRENT IN CHILDREN WITH PURINE DYSMETABOLISM (CLINICAL-LABORATORY ASPECTS). Multidisciplinary Journal of Science and Technology, 4(6), 201–205. Retrieved from <https://mjstjournal.com/index.php/mjst/article/view/1584>
33. Turaeva , N., & Ruzikulov , N. (2024). CLINICAL-LABORATORY INDICATORS OF INTERSTITIAL KIDNEY PATHOLOGY IN CHILDREN IN THE STRUCTURE OF DYSMETABOLIC NEPHROPATHY. Multidisciplinary Journal of Science and Technology, 4(6), 211–214. Retrieved from <https://mjstjournal.com/index.php/mjst/article/view/1586>
34. Turaeva , N., & Ergashev , A. (2024). FEATURES OF ANTIOXIDANT THERAPY IN PATIENTS WITH CHRONIC NEPHROTIC GLOMERULONEPHRITIS. Multidisciplinary Journal of Science and Technology, 4(6), 206–210. Retrieved from <https://mjstjournal.com/index.php/mjst/article/view/1585>
35. Мардиев Отабек Аслиддинович, Кубаев Рустам Мурадиллаевич, Хаятов Рустам Батырбекович, & Рузиева Диана Джамаловна (2021). ТЕЧЕНИЕ ТРЕВОЖНЫХ РАССТРОЙСТВ У БОЛЬНЫХ САХАРНЫМ ДИАБЕТОМ 2 ТИПА. Вестник науки и образования, (2-2 (105)), 72-75.
36. ХАЯТОВ, Р., & ШАМСИКУЛОВА, С. ПСИХОФАРМАКОТЕРАПИЯ ДЕПРЕССИВНЫХ РАССТРОЙСТВ ПРИ АЛКОГОЛИЗМЕ. ББК 5+ 28я43 П 781, 129.
37. Хаятов, Р. Б., & Рахматова, Ф. У. ПСИХОФАРМАКОТЕРАПИЯ АФФЕКТИВНЫХ РАССТРОЙСТВ В СТРУКТУРЕ АЛКОГОЛЬНОЙ ЗАВИСИМОСТИ. Редакционная коллегия выпуска, 440.

38. Azizovna, S. S., Almasovich, R. A., Ulugbekovna, R. F., Aslamovna, N. A., & Batirbekovich, H. R. (2024). PSYCHOLOGICAL FEATURES OF THE FORMATION OF COMMUNICATION SKILLS AMONG STUDENTS OF MEDICAL UNIVERSITIES. Yangi O'zbekistonda Tabiiy va Ijtimoiy-gumanitar fanlar respublika ilmiy amaliy konferensiyasi, 2(1), 107-115.

39. Turayeva, N. (2024). PURIN DISMETABOLIZMI BO'LGAN BOLALARDA INTERSTITSIAL NEFRITNING KLINIK VA LABORATORIYA XUSUSIYATLARI. *Journal of Science-Innovative Research in Uzbekistan*, 2(7), 62–73. Retrieved from

<https://universalpublishings.com/index.php/jsiru/article/view/6640>

40. Yuldoshevna, T. N. (2024). Bolalarda Dismetabolik Nefropatiyaning Shakllanishi Va Kechishi, Klinik Va Yosh Jihatlari. *Journal of Science in Medicine and Life*, 2(7), 43–47. Retrieved from

<https://journals.proindex.uz/index.php/JSML/article/view/1306>

41. Юлдашевна, Т. Н. (2024). Клинические И Лабораторные Факторы, Связанные С Повреждением Почечной Паренхимы Детей С Острым Пиелонефритом. *Journal of Science in Medicine and Life*, 2(7), 38–42. Retrieved from <https://journals.proindex.uz/index.php/JSML/article/view/1305>

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