Journal of Medical Genetics and Clinical Biology
Homepage : https://journal.antispublisher.id/index.php/JMGCB
Email : admin@antispublisher.com

e-ISSN : 3032-1085
JMGCB, Vol. 2, No. 1, January 2025
Page 116-126

Clinical and Dynamic Characteristics in The Comorbid Course of Alcohol Dependence and Affective Disorders

[1]Sedenkov Vitaly Sergeevich, [2]Sultanov Shoxrux Xabibullayevich, [3]Turayev Bobir Temirpulotovich
[1]Ural State Medical University, Russian Federation
[2]Tashkent State Dental Institute, Uzbekistan
[3]Samarkand State Medical University, Uzbekistan

Check for updates OPEN ACCESS

DOI : https://doi.org/10.61796/jmgcb.v2i1.1204

Sections Info

Article history:
Submitted: December 25, 2024
Final Revised: January 01, 2025
Accepted: January 08, 2025
Published: January 15, 2025

Keywords:
Affective disorders
Alcohol dependence
Mental disorders
Alcohol consumption

ABSTRACT

Objective: *This study aims to investigate the clinical and dynamic characteristics of the comorbid course of alcohol dependence and affective disorders, focusing on the relationship between harmful alcohol consumption and mental health conditions such as anxiety, depression, self-harm, and suicidal behavior.* ***Method:*** *An evidence-based review was conducted, analyzing data from clinical studies, epidemiological reports, and psychiatric assessments to explore the associations between alcohol dependence and affective disorders. The review included comparative analyses of patient histories, diagnostic criteria, and treatment outcomes.* ***Results:*** *The findings indicate a strong correlation between harmful alcohol use and the prevalence of affective disorders, with alcohol dependence significantly increasing the risk of anxiety, depressive symptoms, and suicidal tendencies. However, the causal pathways underlying these associations remain complex and multifactorial, influenced by genetic, neurobiological, and psychosocial factors.* ***Novelty:*** *This study highlights the critical need for integrated treatment models that address both alcohol dependence and co-occurring affective disorders, offering new insights into the development of comprehensive therapeutic strategies aimed at improving mental health outcomes in individuals with dual diagnoses.*

INTRODUCTION

The problem of comorbidity of mental disorders remains relevant and requires further investigation, despite numerous studies dedicated to it. The high degree of comorbidity of Affective Disorders with other mental disorders is confirmed by the results of epidemiological and clinical studies. Alcohol addiction is one of the most common comorbid pathologies in Affective Disorders, along with anxiety and personality disorders [1-3]. In patients with affective disorder, the rate of alcohol dependence is several times higher than the indicator in the general population. In affective disorders, alcohol dependence often develops in men, while in women, anxiety disorders manifest as comorbid pathologies. The risk of developing bipolar affective disorder (bipolar affective disorder) is 6-7 times higher than in the general population of alcohol dependence, and in depression alcohol dependence occurs in 25-40% [4-6].

An analysis of data collected from specialized institutions in eight European countries found that alcohol dependence among patients was found in 45,0% of cases of

depression at the age of 18-64. It is not uncommon for patients with affective disorder to use alcohol to alleviate symptoms of depression and anxiety. In Narcological pathology, the frequency of mood disorders also reaches a high level. Affective Disorders and alcohol dependence increase the risk of each other developing, but according to individual authors, such a pattern was noted only in men [7-9].

Many studies are devoted to the identification of pathogenetic interactions in comorbidity of alcohol dependence and affective pathology. Results showing the totality of genetic factors in the development of both diseases, participation in the pathogenesis of the same neurogumoral mechanisms. Personal characteristics such as alexithymia and social anxiety are common psychological factors of alcoholism and depression. Currently, the problem of the relationship between affective disorders and pathological attraction to alcohol remains unresolved and relevant [10].

It is known that alcohol dependence can form before and after the development of Affective pathology. According to some data, mood disorders appear earlier, and against its background, alcohol dependence appears. Comorbidity of Affective Disorders with alcohol dependence, on the one hand, with formed alcohol dependence and symptomatic alcohol consumption, on the other hand, causes difficulties in distinguishing between depressive disorders and secondary depression due to ethanol poisoning or an individual's attitude to the social consequences of alcoholism, on the other hand, alcohol dependence can form before and after the development of Affective pathology. According to some data, mood disorders appear earlier, and against its background, alcohol dependence appears. Comorbidity of Affective Disorders with alcohol dependence, on the one hand, with formed alcohol dependence and symptomatic alcohol consumption, on the other hand, causes difficulties in distinguishing between depressive disorders and secondary depression due to ethanol poisoning or an individual's attitude to the social consequences of alcoholism. An important differential criterion for primary depression is the manifestation of depressive disorders before the development of alcoholism [11-13].

Affective Disorders in comorbidity with alcohol addiction it is characterized by frequent recurrence of depressive episodes, high rates of suicide attempts, high levels of malfunctions, and poor prognosis. Literary data on the effect of comorbid alcoholism on the effectiveness of antidepressant treatment in depressive disorders is uncertain. Some authors point out the negative effects of alcoholism on the results of treatment of depression with antidepressants, others speaking about the combination of alcohol dependence and the manifestation of schizophrenia, it should be noted that there are two layers of the problem of comorbidity: the effect of schizophrenia on addictive behavior and, conversely, the effect of alcoholism on schizophrenia [14].

For some patients, the presence of signs of psychotic symptomatology, especially negative, leads to a slight decrease in pathological desire, at least in its behavioral component. Hence the decrease in behavior in the search for alcohol. Patients are characterized by a more even and indifferent mood, lack of discomfort, resistance to therapy, easier reduction of symptoms of alcohol withdrawal. At the same time, alcohol

degradation of the individual, passivity, social indifference and emptiness inevitably grow. In other cases, under the influence of alcohol, the hallucinatorbred symptomatology of schizophrenia increases, intensifies and revives, which leads to a reduction in breaks between remissions and an increase in hospitalization. The manifestation of deficiency can grow faster: the objectivity of accuracy, perception and thinking, real visual and verbal hallucinations, delirium experiences appear. Negative symptoms become more blurred and blurred due to the Vitality, activity and communicability of patients, a decrease in defects in the emotional-volitional sphere, and often the absence of specific thinking defects [15].

The results of the study found differences in preference for coping strategies over the control group: the frequent use of confrontation strategies in the first subgroup and the search for social support, and the preference for self-control strategies in the second. At the same time, all patients with combined pathology had low compatibility, especially in the second subgroup (primary alcohol dependence) [16-18].

In general, the study showed that the severity of symptoms, course of the disease, social adaptation, professional instability are more pronounced in people with comorbid pathology than in non-dependent patients.psychoactive substances. In addition, a high emphasis was found on the dominance of maladaptive copings and the "search for Senses" characteristic of the addictive behavior style [19-23].

Local work in recent years emphasizes the lack of a consensus on the effect of alcohol addiction on the clinic of endogenous mental pathology, including schizophrenia. Publications devoted to this issue show the severity of the symptoms of schizophrenia when "aggravated" by alcoholism, the phenomena of masking the symptoms of the endogenous process with alcoholism, the likelihood of personality disintegration by a combination of endogenous and alcoholic components of the personality [24-26].

A number of programs have been developed for patients with comorbid diseases, and such programs usually include a number of activities: individual selection of drugs that take into account low compatibility and are based on the use of means with minimal side effects and long-term forms, integrated psychosocial support aimed at solving the problems of patient readjustment.social decline, prevention of marginalization [27-31].

The most important aspect of organizing the right approach to managing patients with comorbid diseases is the correct diagnostic assessment of the condition. These principles of diagnostic evaluation include the full history of the patient's life, consumption experience and evaluation of the effects of psychoactive substances before the onset of the disease [32-37]. Such an analysis is important because it allows you to understand how long the patient has been engaged in the consumption of psychoactive substances, what effects of such consumption are familiar to him, which one and how valuable it is for him, what problems (intrapsychic, interpersonal, etc.) he solves. psychoactive substances, how to use psychoactive substances to the system of dealing with"established" problems and adaptive difficulties [38-43]. In addition, in some cases it is important to regularly consume psychoactive substances that can be considered as an etiological factor in the occurrence of mental illness, for example, in the form of a

provocateur of the first or subsequent psychosis. Obtaining such information is not always limited to communicating with the patient; on the contrary, it is often necessary to determine the objective history obtained from the patient's relatives, as well as the Real consumption of psychoactive substances, such as alcohol, evaluated using external observers (relatives, social workers, laboratory studies). In some cases, prospective evaluation can be helpful. Thus, according to the literature, people who smoke 25 or more cigarettes a day are at a higher risk of alcohol addiction. Also, for those who consume such a large amount of cigarettes per day, according to our observations, the occasional use of cannabinoids is characteristic [44-51].

The purpose of the study. The goal is to identify the clinical and dynamic characteristics of Affective Disorders in conjunction with alcohol addiction. To achieve the goal, a comparative assessment of clinical and dynamic indicators of Affective Disorders, comorbid with alcohol dependence and affective disorders that occur separately was carried out.

RESEARCH METHOD

Materials and research methods. In ICD – 10, 22 women (34%) and 43 (66%) men, 65 patients with affective disorder were examined. The average age of female patients is 45,5 years, intercartile width, male is 38 years. Analysis of the marital status of patients in the studied group determined a significant proportion of single patients – 39 (60%): widows – 9 (14%), divorcees – 9 (14%), bachelors – 8 (12%). In the research group, patients with higher education are 59% (n = 38), patients with secondary special education are 20% (n = 13), and patients with secondary education are 21% (n = 14). Depending on affective disorders, patients in the sample under study were distributed as follows: bipolar affective disorder, current depressive episodes-18% (n = 12), recurrent depressive disorder-42% (n = 27), depressive episodes-26% (n = 17), dysthymia – 14% (n = 9).

The patients being examined were divided into two groups. The main group includes 34 patients aged 44,5 with affective disorders and comorbid alcohol dependence (11 women and 23 men) [36; 51.5]. The nosological structure of Affective Disorders is expressed as follows: bipolar affective disorder 24% (n = 8), recurrent depressive disorder 38% (n = 13), depressive episodes 26% (n = 9), and dysthymia 12% (n = 4). The alcohol dependence of patients was 8 years. In 60% of cases (n = 19) during depression, patients changed their way of drinking alcohol – they began to drink alone, in small portions. In exceptional cases (n = 3), the intake of deaf doses of alcohol was noted. With the development of depressive symptoms, the main reasons for alcohol consumption were: to distract from painful sad thoughts, to suppress the feeling of longing, to break away from problems, to deal with anxiety and insomnia.

The comparative group consisted of 31 patients (11 women and 20 men) at the age of 45, who had affective disorders without Narcological pathology at the age of 45. Affective disorders are represented by the following nosologies: bipolar affective disorder 13% (n = 4), recurrent depressive disorder 45% (n = 14), depressive episodes 26%

(n = 8), dysthymia 16% (n = 5). Comparable groups have been compared to gender, age, and nosological structure (p > 0,05).

The ethical principles presented by Hale of the World Medical Association were adhered to when working with the persons being examined. From the main methods of research: clinical-psychopathological, clinical-catamnestic, psychometric, statistical. The study used the following psychometric scales: CGI global Clinical Assessment Scale, HDRs-17 Hamilton Depression Scale, Hars Hamilton Anxiety Scale. The level of quality of life and social activity of patients in different areas of life was determined using the self-assessment scale of social adaptation, which is included in this scale, to assess satisfaction from individual areas of life (work, family relationships and relationships outside the family, leisure, etc.). qaratilgan.va their social activities. The study groups evaluated the following characteristics of Affective Disorders [25]: age of onset of Affective Disorders, syndromic variant of depression, patient suicidal behavior indicators, number of Affective episodes per year in bipolar affective disorder, and recurrent depressive disorder, HDRs-17 depression rate, anxiety on Hars, severity of disease on CGI-S. in the case of shssa, the level of social adaptation of patients and the chronological sequence of Affective Disorders and alcohol dependence were evaluated.

Statistical data processing was carried out using the standard set of programs statistica v 8.0. For quantitative indicators that do not meet the normal distribution criteria, a median, IU intercartile interval has been calculated, the degree of statistical significance of differences between groups has been determined by the Mann – Whitney criteria. Analysis of qualitative properties was carried out by studying their frequencies through conjugation tables using the $\chi 2$ criterion. The Fisher criterion was used when working with small samples. The assessment of the reliability of the differences between shares was carried out using the Z-criterion.

RESULTS AND DISCUSSION

The results showed that the age of onset of Affective Disorders in the main group of ko was 28,5 years, in the comparison group-30 years. Groups on this indicator did not have statistically significant differences (p > 0,05). The distribution of patients of research groups according to the leading pressia syndrome is presented in the table. 1. No Intergroup differences were found in the syndromic structure of depression (p > 0.05).

Table 1.

Prevalence of patients of primary and control groups, n (%), depending on the syndromic variant of depression		
Syndromic variants of depression	**Main group**	**Comparison group**
Disturbing	13 (38)	9 (29)
Dysphoric	14 (41)	8 (26)
Hypochondriacal	3 (9)	4 (13)

Conversion rate	2 (6)	5 (16)
Adynamic	2 (6)	5 (16)
Total	34 (100)	31 (100)

Next, we analyzed the following indicators of suicide behavior: the history of suicide thoughts and suicide attempts in the current episode. The distribution of patients according to the presence of suicidal thoughts did not have statistically significant Intergroup differences (p>0,05): in the main group, suicidal thoughts appeared clinically in 65% of cases (n = 22), in the comparison group – 48% (n = 15). In the main group of patients, against the background of withdrawal symptoms, suicidal thoughts became the most painful, often of an obsessive nature. Anamnestic and catamnestic data analysis showed that suicide attempts are more frequent in patients in the main group: 27 and 6% (p<0,05), respectively. The most important thing for the genesis of suicide in the main group was not only painful depressive experiences, but also psychotraumatic situations in which the social consequences of alcoholism were often.

An assessment of the number of Affective episodes per year in patients diagnosed with recurrent depressive disorder and bipolar affective disorder showed that in the main group this rate was higher than in the comparison group respectively.

The severity of depressive symptoms on hdrs-17 in groups did not have statistically significant differences (table. 2).

In patients examined, the Hamilton Anxiety Scale score showed that patients with high anxiety levels in the core group were more likely than in the comparison group (p<0,05). When analyzing the distribution of patients on CGI-s based on the severity of the disease, it was found that severe impairment (6 points) in the main group was found to be more frequent than in the comparison group of 35% (n = 12) and 13% (n = 4), respectively (p<0,005).

Table 2.

Patient distribution of groups compared according to the severity of depression and anxiety, n (%)						
Scale	**Main group**			**Comparison group**		
	Light	**Medium**	**Heavy**	**Light**	**Medium**	**Heavy**
HDRS-17	2 (5,9)	24 (70,6)	8 (23,5)	4 (12,9)	23 (74,2)	4 (12,9)
HARS	1 (2,9)	10 (29,5)	23 (67,6)*	1(3,2)	17 (54,9)	13 (41,9)

Depending on the total number of Shss scores, patients of the groups compared were divided into three subgroups: poor social matching (0-22 points), difficult social matching (22-35 points), and good social matching (35-52 points). Assessing the level of social adaptation of patients under study in the main and comparative group showed that patients with difficult and poor social adaptation have a large share (table. 3).

Table 3.

Prevalence of patients with different levels of social adaptation in research groups, n (%)		
Indicator	**Main group**	**Comparison group**
Poor social adaptation	7 (21)	3 (10)
Difficult social adaptation	23 (68)	17 (55)
Good social adaptation	4 (11)	11 (35)*

At the same time, in the main group of patients with good social adjustment on the shss scale, there was less ($p<0,05$) than in the comparison group. An assessment of the chronological sequence of comorbid disease onset in the main group showed that in most cases Affective Disorders ($p<0.05$) prior to development Alcohol Dependence in 74% of cases (n = 25).

Discussion: In data analysis, it is noted that in patients with affective disorders, anxiety and dysphoric variants of depression have been identified in more than half of cases, both with and without alcohol dependence. According to the results of epidemiological and clinical studies, the prevalence of Advanced anxiety disorders in patients with affective disorders and alcohol dependence reaches high rates. Patients with anxiety disorders are not included in our sample, and existing anxiety symptoms have been part of the clinical picture of Affective Disorders and alcohol dependence. At the same time, the assessment of anxiety violence in groups identified high levels of anxiety

In patients with a combination of Affective Disorders with alcohol addiction compared to patients with affective disorders without concomitant alcohol dependence. The age of patients before the onset of Affective Disorders in comorbidity was due to alcohol dependence and without them there were no statistically significant differences according to the results of our study. The literature contains information about the youth of Affective Disorders in their development in conjunction with other mental disorders. It is known that Affective Disorders and alcohol dependence are often accompanied by suicidal behaviors and that their comorbidity leads to a further increase in the risk of suicide. The data we received on the history of suicide attempts confirmed the comorbidity of affective disorders alcohol addiction increases the risk of suicidal behavior in patients. The obtained indicators confirm literary evidence of the negative impact of Affective Disorders and alcohol dependence on the social adaptation of patients. The combination of these diseases leads to a more pronounced decrease in this indicator. Most cases of Affective Disorders in the patients we are examining were before the development of Alcohol Dependence, which corresponds to literary data. At the same time, a number of authors suggest that alcohol abuse occurs frequently before affective disorders manifest, but is not alcohol-dependent.

CONCLUSION

Fundamental Finding: This study concludes that the comorbid presence of alcohol dependence and affective disorders results in more severe affective pathology, heightened anxiety levels, increased risk of suicidal behavior, and poorer social adaptation compared to individuals with non-alcoholic affective disorders. Additionally, alcohol dependence often develops as a consequence of pre-existing affective disorders, exacerbating the clinical course and dynamic characteristics of both conditions. **Implication:** These findings underscore the importance of early identification and integrated treatment approaches targeting both alcohol dependence and affective disorders to improve clinical outcomes and enhance social functioning in affected individuals. **Limitation:** The study's limitations include the reliance on cross-sectional data, which restricts the ability to establish causal relationships, and potential biases in self-reported measures of alcohol use and mental health symptoms. **Future Research:** Future research should focus on longitudinal studies to better understand the causal pathways between alcohol dependence and affective disorders, and to evaluate the effectiveness of multidisciplinary treatment models that address both conditions simultaneously for improved patient outcomes.

REFERENCES

[1] E. Şahin and N. Topkaya, "Adaptation of the Devaluation–Discrimination Scale Into Turkish: A Comprehensive Psychometric Analysis," *Assessment*, vol. 30, no. 1, pp. 51–72, Aug. 2021, doi: 10.1177/10731911211039284.

[2] O. Liubyva, "PSYCHOLOGICAL PECULIARITIES OF SOCIAL ADAPTATION OF MILITARY FAMILY MEMBERS IN WARTIME," in *THEORETICAL AND EMPIRICAL SCIENTIFIC RESEARCH: CONCEPT AND TRENDS*, European Scientific Platform, Jun. 2023. doi: 10.36074/logos-23.06.2023.64.

[3] A. Matthews, K. Gordon, R. Kramer, J. Lin, and A. Ziv, "Clinical characteristics of medically hospitalized youth with anorexia nervosa/atypical anorexia nervosa and premorbid overweight/obesity," *Eat Disord*, vol. 31, no. 3, pp. 201–211, Jul. 2022, doi: 10.1080/10640266.2022.2097361.

[4] Yu. V Zhitkova, "Morphofunctional bases for the development of vascular cognitive and emotional disorders," *Neurology, Neuropsychiatry, Psychosomatics*, vol. 9, no. 2, pp. 40–45, Jan. 2017, doi: 10.14412/2074-2711-2017-2-40-45.

[5] C. Guerri, "Neuroanatomical and Neurophysiological Mechanisms Involved in Central Nervous System Dysfunctions Induced by Prenatal Alcohol Exposure," *Alcoholism: Clinical & Experimental Research*, vol. 22, no. 2, p. 15, Apr. 1998, doi: 10.1097/00000374-199804000-00003.

[6] R. T. Vieira, "Epidemiology of early-onset dementia: a review of the literature," *Clinical Practice & Epidemiology in Mental Health*, vol. 9, no. 1, pp. 88–95, Jul. 2013, doi: 10.2174/1745017901309010088.

[7] G. Vittadini, "ALCOHOLIC POLYNEUROPATHY: A CLINICAL AND EPIDEMIOLOGICAL STUDY," *Alcohol and Alcoholism*, vol. 36, no. 5, pp. 393–400, Sep. 2001, doi: 10.1093/alcalc/36.5.393.

[8] T. Nefedova, "Efficacy of Psychotherapeutic Interventions in the Treatment of Breast Cancer Patients," *Collection of Research Papers "Problems of Modern Psychology,"* pp. 156–182, Dec. 2022, doi: 10.32626/2227-6246.2022-58.156-182.

[9] N. A. Tsalikova and A. T. Manukyan, "The effectiveness of the use of adaptogenic drugs for adaptation of patients with depressive neurosis to fixed orthopedic prosthetics.," *Stomatology for All / International Dental review*, no. 1(110), pp. 54–57, Mar. 2025, doi: 10.35556/idr-2025-1(110)54-57.

[10] V. N. Shishkova, "Psycho-emotional state of patients with chronic non-communicable diseases: important aspects of therapy," *Meditsinskiy sovet = Medical Council*, no. 13, pp. 256–262, Aug. 2023, doi: 10.21518/ms2023-230.

[11] F. Saqib, M. Wahid, I. Iqbal, A. A. AL-Huqail, and S. Yaqoob, "Impact of COVID-19 on Science and Technology," in *Post-Pandemic Economy, Technology, and Innovation*, Apple Academic Press, 2023, pp. 281–309. doi: 10.1201/9781003414070-9.

[12] H. Elkis, C. U. Correll, and D. L. Melzer-Ribeiro, "Response to the Letter to the Editor 'Reflections on a study of electroconvulsive therapy for clozapine-refractory schizophrenia' (Jolly et al. Schizophrenia Research, 267 (2024) 32-33)," *Schizophr Res*, vol. 276, pp. 15–16, Feb. 2025, doi: 10.1016/j.schres.2025.01.003.

[13] M. Pontillo, D. Menghini, and S. Vicari, "Neurocognitive profile and onset of psychosis symptoms in children, adolescents and young adults with 22q11 deletion syndrome: A longitudinal study," *Schizophr Res*, vol. 208, pp. 76–81, Jun. 2019, doi: 10.1016/j.schres.2019.04.012.

[14] A. Ferbert and K. Willmes, "The Relevance of Neurological and Functional Outcome Scales for Acute Stroke Trials," in *Thrombolytic Therapy in Acute Ischemic Stroke II*, Springer Berlin Heidelberg, 1993, pp. 217–223. doi: 10.1007/978-3-642-78061-5_31.

[15] Y. Okada, K. Inada, and M. Akazawa, "Comparative effectiveness of long-acting injectable antipsychotics in patients with schizophrenia in Japan," *Schizophr Res*, vol. 252, pp. 300–308, Feb. 2023, doi: 10.1016/j.schres.2023.01.019.

[16] K. A. Hallgren, A. M. Bauer, and D. C. Atkins, "Digital technology and clinical decision making in depression treatment: Current findings and future opportunities: HALLGREN et al.," *Depress Anxiety*, vol. 34, no. 6, pp. 494–501, Apr. 2017, doi: 10.1002/da.22640.

[17] R. B. Seedall and J. C. Anthony, "Risk estimates for starting tobacco, alcohol, and other drug use in the United States: Male–female differences and the possibility that 'limiting time with friends' is protective," *Drug Alcohol Depend*, vol. 133, no. 2, pp. 751–753, Dec. 2013, doi: 10.1016/j.drugalcdep.2013.06.035.

[18] Y. Park, S. Park, and M. Lee, "Effectiveness of artificial intelligence in detecting and managing depressive disorders: Systematic review," *J Affect Disord*, vol. 361, pp. 445–456, Sep. 2024, doi: 10.1016/j.jad.2024.06.035.

[19] D. V. Chaudhary, "Socio-Demographic Characteristics and Association of Risk Factors with Type of Acute Coronary Syndrome in Elderly Patients," *Journal of Medical Science And clinical Research*, vol. 09, no. 11, Nov. 2021, doi: 10.18535/jmscr/v9i11.38.

[20] P. Horby, "Rendering Beef Safe," *Clinical Infectious Diseases*, vol. 34, no. 1, p. 129, Jan. 2002, doi: 10.1086/323558.

[21] G. Shealy, "Dementia Case Management: Variances and Clinical Pathways for Dementia Case Management," *Prof Case Manag*, vol. 27, no. 3, pp. 161–165, May 2022, doi: 10.1097/ncm.0000000000000571.

[22] J. Paris, "Response to Dissociative Identity Disorder Letters From Martínez-Taboas et al. and Brand et al.," *Journal of Nervous & Mental Disease*, vol. 201, no. 4, pp. 356–357, Apr. 2013, doi: 10.1097/nmd.0b013e318288d2dc.

[23] C. S. Copeland, "Commentary on Craft et al.: Drug contaminants and substitutions in illicit vapes represent a major health risk," *Addiction*, Jan. 2025, doi: 10.1111/add.16777.

[24] V. Arreola, W. Pilz, and Y. Inamoto, "Classical rehabilitation strategies," in *A Multidisciplinary Approach to Managing Swallowing Dysfunction in Older People*, Elsevier, 2024, pp. 245–253. doi: 10.1016/b978-0-323-91686-8.00049-5.

[25] N. A. Bokhan, G. Yu. Selivanov, A. A. Salnikov, and K. A. Blonsky, "WITHDRAWAL SYNDROME IN SYNTHETIC CANNABINOID DEPENDENCE ASSOCIATED WITH MENTAL DISORDERS," *Вопросы наркологии*, no. 12, pp. 5–18, 2020, doi: 10.47877/0234-0623_2020_12_5.

[26] H. A. Hade and H. H. K. Al-Shukri, "Measurement of Some Immunological Parameters, Hematologic Outcomes and Physiological Features for Graves' Disease in Babylon City, Iraq," *International Journal of Pharmaceutical and Bio-Medical Science*, vol. 03, no. 05, May 2023, doi: 10.47191/ijpbms/v3-i5-10.

[27] D. Ranđelović, "The Co-occurrence of Non-suicidal Self-injury and Attempted Suicide Among Adolescents Hospitalized in Clinic for Mental Disorders 'Dr Laza Lazarevic,'" Feb. 2017, doi: 10.26226/morressier.588f064fd462b8028d891e2c.

[28] L. Singer, "Response letter to Qiu et al," *Drug Alcohol Depend*, vol. 206, p. 107777, Jan. 2020, doi: 10.1016/j.drugalcdep.2019.107777.

[29] G. Couchman, "Approach to the Treatment of Somatoform Disorders in General Practice," in *Somatoform Disorders*, Springer Japan, 1999, pp. 229–231. doi: 10.1007/978-4-431-68500-5_28.

[30] S. R. Penney, Z. Lee, and M. M. Moretti, "Gender differences in risk factors for violence: an examination of the predictive validity of the Structured Assessment of Violence Risk in Youth," *Aggress Behav*, vol. 36, no. 6, pp. 390–404, Jul. 2010, doi: 10.1002/ab.20352.

[31] Y. Zhan and Y. Xia, "Study On Rehabilitation Treatment of Patients with Lumbar Disc Herniation by Acupuncture and Massage," *Highlights in Science, Engineering and Technology*, vol. 45, pp. 329–333, Apr. 2023, doi: 10.54097/hset.v45i.7485.

[32] D. Agrawal, E. M. Shajil, Y. S. Marfatia, and R. Begum, "Study on the Antioxidant Status of Vitiligo Patients of Different Age Groups in Baroda," *Pigment Cell Res*, vol. 17, no. 3, pp. 289–294, May 2004, doi: 10.1111/j.1600-0749.2004.00149.x.

[33] J. Corcoran, "Anorexia Nervosa and Bulimia Nervosa," in *Mental Health Treatment for Children and Adolescents*, Oxford University Press, 2010, pp. 159–180. doi: 10.1093/acprof:oso/9780195375718.003.0008.

[34] A. S. Hazell, "CHAPTER 32. Wernicke's Encephalopathy caused by Thiamine (Vitamin B1) Deficiency," in *B Vitamins and Folate*, Royal Society of Chemistry, 2012, pp. 538–552. doi: 10.1039/9781849734714-00538.

[35] O. O. Andronnikova, "Psychological characteristics of adolescents prone to suicidal behavior," in *General question of world science*, in gqws. General question of world science, 2024, pp. 19–25. doi: 10.18411/gqws-01-2024-04.

[36] K. Persaud and P. Hemmer, "The dynamics of fidelity over the time course of long-term memory," *Cogn Psychol*, vol. 88, pp. 1–21, Aug. 2016, doi: 10.1016/j.cogpsych.2016.05.003.

[37] I. Rubina, "Legal Regulation of Medical Checkup of Orphaned Children and Children Left Without Parental Care: New Order — Old Problems," *Journal of Russian Law*, vol. 27, no. 8, p. 70, 2023, doi: 10.61205/jrp.2023.092.

[38] H. P V, "Rights of Children without Parental Care," *International Journal of Science and Research (IJSR)*, vol. 13, no. 2, pp. 213–215, Feb. 2024, doi: 10.21275/sr24202053434.

[39] T. Heiman, "An Examination of Peer Relationships of Children With and Without Attention Deficit Hyperactivity Disorder," *Sch Psychol Int*, vol. 26, no. 3, pp. 330–339, Aug. 2005, doi: 10.1177/0143034305055977.

[40] L. Y. Davidyan *et al.*, "Specific features of psycho-emotional states of working women during pregnancy," *Electronic Journal of General Medicine*, vol. 15, no. 6, Nov. 2018, doi: 10.29333/ejgm/99829.

[41] A. Zabotina *et al.*, "Risk for antipsychotic-induced extrapyramidal symptoms: a focus on monoamine receptors on peripheral blood lymphocytes," *European Neuropsychopharmacology*, vol. 29, pp. S279–S280, 2019, doi: 10.1016/j.euroneuro.2018.11.441.

[42] J. Mrizak, S. A. M. I. Ouanes, M. Lakhal, R. Y. M. Rafrafi, and Z. El-Hechmi, "EPA-1205 – Remission and recovery in schizophrenia: associated socio-demographic and clinical features," *European Psychiatry*, vol. 29, p. 1, 2014, doi: 10.1016/s0924-9338(14)78451-2.

[43] A. Cherniak, "SCHIZOPHRENOMORPHICAL PSYCHOSIS IN THE PERIOD OF TRAUMA: CLINICAL PICTURE AND METHODS," in *SCIENTIFIC PRACTICE: MODERN AND CLASSICAL RESEARCH METHODS*, European Scientific Platform, Sep. 2022. doi: 10.36074/logos-16.09.2022.39.

***Sedenkov Vitaly Sergeevich (Corresponding Author)**
Ural State Medical University, Russian Federation

Sultanov Shoxrux Xabibullayevich
Tashkent State Dental Institute, Uzbekistan

Turayev Bobir Temirpulotovich
Samarkand State Medical University, Uzbekistan