

БИОМЕДИЦИНА ВА АМАЛИЁТ ЖУРНАЛИ

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RETROSPECTIVE ANALYSIS OF PATIENTS WITH DEPENDENCE**

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 <http://dx.doi.org/10.5281/zenodo.19815447>**ABSTRACT**

Synthetic cathinones (SC), a prominent class of new psychoactive substances (NPS), have gained increasing popularity in illicit drug markets. Their widespread availability and perceived legal status contribute to rising consumption rates, despite emerging evidence of severe psychiatric consequences. Among these, suicidality remains a significant concern. However, research on the association between synthetic cathinone use and suicidal behavior remains limited. This study aimed to investigate the relationship between SC use and suicidality risk. **Methods.** An observational retrospective cohort study was conducted at the Republican Specialized Scientific-Practical Medical Center of Mental Health in Uzbekistan between 2022 and 2024. A total of 138 patients diagnosed with substance use disorders were included, stratified into two groups: main group (n = 98): patients with synthetic cathinone dependence (ICD-10 code F15.2); comparison group (n = 40): patients dependent on other psychostimulants. Data were collected through clinical records, structured clinical interviews, and standardized questionnaires, including the Columbia-Suicide Severity Rating Scale (C-SSRS). Odds ratios (OR), relative risks (RR), and the number needed to treat (NNT) were calculated to assess the association between SC use and suicidality. **Results.** The findings revealed a significant association between Alfa-PVP use and increased suicidality risk (OR = 2.76, 95% CI: 1.19–6.39, p = 0.026; RR = 2.07, 95% CI: 1.09–3.95, p = 0.026). The NNT for harm (4.97) suggests that for every five individuals using Alfa-PVP, one additional case of high suicidality occurs.

Conclusions. The results underscore Alfa-PVP as a substance of concern, given its strong association with suicidality, necessitating increased clinical monitoring. Further research is required to explore underlying mechanisms and validate these findings through adjusted models and prospective studies.

Key words: synthetic cathinones, Alfa-PVP, suicidality, new psychoactive substances (NPS), substance use disorders.

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Toshkent davlat tibbiyot universiteti, Toshkent, O‘zbekiston**SINTEK KATINONLARNING SUITSIDAL XULQ-ATVORGA TA’SIRI:
QARAMLIKKA EGA BEMORLARNING RETROSPEKTIV TAHLILI****ANNOTATSIYA**

Sintetik katinonlar (SK) yangi psixoaktiv moddalarning (YPM) muhim sinfi bo‘lib, noqonuniy giyohvand moddalar bozorida tobora keng tarqalmoqda. Ularning keng mavjudligi va shartli ravishda “qonuniy” deb qabul qilinishi, jiddiy psixiatrik asoratlar mavjudligiga qaramay, iste‘mol darajasining oshishiga olib kelmoqda. Shu jumladan, suitsidal xulq-atvor muhim muammo bo‘lib qolmoqda. Biroq SK iste‘moli va suitsidal xulq-atvor o‘rtasidagi bog‘liqlik yetarlicha o‘rganilmagan. Ushbu tadqiqot SK iste‘moli va suitsid xavfi o‘rtasidagi bog‘liqlikni aniqlashga qaratilgan. Usullar. 2022–2024 yillarda O‘zbekiston Respublikasidagi Respublika ixtisoslashtirilgan ruhiy salomatlik ilmiy-amaliy tibbiyot markazida retrospektiv kohort kuzatuv tadqiqoti o‘tkazildi. Moddalar iste‘moli buzilishlari tashxisi qo‘yilgan jami 138 bemor ikki guruhga ajratildi: asosiy guruh (n = 98) — sintetik katinonlarga qaram bemorlar (ICD-10 kodi F15.2); taqqoslash guruhi (n = 40) — boshqa psixostimulyatorlarga qaram bemorlar. Ma‘lumotlar klinik hujjatlar, strukturaviy intervyular va standartlashtirilgan so‘rovnomalarda, jumladan C-SSRS yordamida yig‘ildi. SC va suitsid xavfi o‘rtasidagi bog‘liqlik OR, RR va NNT orqali baholandi. Natijalar. Alfa-PVP iste‘moli va suitsidal xavf oshishi o‘rtasida ishonchli bog‘liqlik aniqlandi (OR = 2.76; 95% CI: 1.19–6.39; p = 0.026; RR = 2.07; 95% CI: 1.09–3.95; p = 0.026). NNT (4.97) ko‘rsatkichiga ko‘ra, har 5 nafar Alfa-PVP iste‘molchidan bittasida qo‘shimcha yuqori suitsidal holat kuzatiladi.

Xulosa. Alfa-PVP yuqori suitsidal xavf bilan bog‘liq bo‘lgan modda sifatida alohida e‘tibor talab qiladi va klinik monitoringni kuchaytirishni talab etadi. Natijalarni tasdiqlash uchun qo‘shimcha prospektiv tadqiqotlar zarur.

Kalit so‘zlar: sintetik katinonlar, Alfa-PVP, suitsidal xulq-atvor, yangi psixoaktiv moddalar, moddalar iste‘moli buzilishlari.

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Ташкентский государственный медицинский университет, г. Ташкент, Узбекистан**ВЛИЯНИЕ СИНТЕТИЧЕСКИХ КАТИНОНОВ НА СУИЦИДАЛЬНОЕ ПОВЕДЕНИЕ:
РЕТРОСПЕКТИВНЫЙ АНАЛИЗ ПАЦИЕНТОВ С ЗАВИСИМОСТЬЮ****АННОТАЦИЯ**

Синтетические катиноны (СК) — один из ведущих классов новых психоактивных веществ (НПВ), активно распространяющихся на нелегальном рынке. Их доступность и предполагаемая легальность способствуют росту потребления, несмотря на серьезные психиатрические последствия. Суицидальное поведение представляет собой одну из наиболее значимых проблем. Однако связь между употреблением СК и суицидальностью изучена недостаточно. Цель исследования — оценить данную взаимосвязь. Методы. Проведено ретроспективное когортное исследование в Республиканском

специализированном научно-практическом медицинском центре психического здоровья (2022–2024 гг.). Включено 138 пациентов, разделённых на две группы: основная (n = 98) — зависимость от СК (F15.2), контрольная (n = 40) — другие психостимуляторы. Используются клинические данные, интервью и шкала C-SSRS. Рассчитаны OR, RR и NNT. Результаты. Установлена достоверная связь между употреблением Альфа-ПВП и повышением риска суицидальности (OR = 2,76; 95% CI: 1,19–6,39; p = 0,026; RR = 2,07; 95% CI: 1,09–3,95; p = 0,026). NNT = 4,97.

Выводы. Альфа-ПВП ассоциирован с высоким риском суицидального поведения и требует усиленного клинического контроля. Необходимы дальнейшие исследования.

Ключевые слова: синтетические катиноны, Альфа-ПВП, суицидальное поведение, новые психоактивные вещества, расстройства, связанные с употреблением ПАВ.

Introduction

The development and distribution of new psychoactive substances (NPS) has raised serious concerns globally [1]. Particularly alarming is the growth of the NPS market, which continues alongside the stabilization or reduction of the consumption of internationally controlled drugs. The Internet plays a key role in this complex process, facilitating the rapid spread of NPS among younger populations [2]. One of the most widely circulated classes of NPS are synthetic cathinones (SC), which are gaining increasing popularity on the illicit market [3]. This rapid expansion of SC use necessitates an in-depth examination of its consequences.

Over the past two decades, synthetic cathinones have become an important focus of attention, gradually displacing traditionally abused drugs [4]. This trend is driven by the high availability and economic affordability of SC, as well as the formation of false stereotypes among consumers regarding the legality, harmlessness, and safety of their use. Due to their unregulated status, synthetic cathinones are often perceived as legal and less harmful, leading to an underestimation of their addictive potential [5,6]. However, in clinical practice, combined use of SC with other substances is frequently observed, complicating the clinical picture and leading to more severe medical and social consequences [7]. SC users are characterized by rapid development of psychopathological changes, leading to neurotoxic damage to the central nervous system, personality degradation, increased incidence of intoxication-induced psychosis, and serious behavioral disorders [6, 8].

The consequences of SC use are particularly dangerous, such as the rise in mortality among dependent individuals, which is not always caused by somatic complications alone. In some cases, death may result from external factors, such as accidents, accidental overdoses, or suicides, which have not received sufficient scientific attention [9, 10]. This highlights the need for a deeper investigation into the risk factors associated with synthetic cathinone use, including suicidal tendencies among dependents.

This study aims to investigate the association between synthetic cathinone use and suicidal behavior.

Materials and Methods

Study Design

This study employs an observational retrospective cohort design to analyze the relationship between synthetic cathinone (SC) use and suicidal behavior. The research focuses on two groups of patients treated at the Republican Specialized Scientific-Practical Medical Center of Mental Health of the Ministry of Health of the Republic of Uzbekistan between 2022 and 2024. Data were collected from clinical records, questionnaires and statistical analyses.

Study Population

The study included **138 patients**, stratified into two groups: **main group included** 98 patients diagnosed with **dependence on synthetic cathinones** (ICD-10 code F15.2); comparison group consisted of 40 patients with dependence on other psychostimulants (such as pregabalin, gabapentin, carbamazepine or tropicamide). Comparison group was selected based on the similarity of clinical effects and assignment to the same ICD-10 category. Patients were selected based on pre-defined inclusion and exclusion criteria.

Data Collection Methods

Data were obtained through the following approaches: clinical records and documentation (retrospective review of patient records, including psychiatric evaluations, history of substance use, and treatment outcomes); questionnaires and structured clinical interviews (standardized tools assessing substance use patterns, suicidality, and psychosocial factors; Columbia-Suicide Severity Rating Scale (C-SSRS) was used for suicidality risk assessment; questionnaires to gather demographic information, substance use history).

The verification of psychoactive substance use was conducted through a comprehensive approach incorporating multiple data sources. First, self-report questionnaires were utilized to gather information on substance use patterns. To ensure objective confirmation, rapid urine drug screening was performed to detect the presence of synthetic cathinones and other substances. Additionally, medical records were reviewed to obtain documented evidence of prior substance use and treatment history.

Independent and Dependent Variables

The study examined various independent and dependent variables to assess the relationship between psychoactive substance use and suicidality risk. Independent variables included the type of psychoactive substance used, specifically Alfa-PVP, mephedrone, pregabalin, gabapentin, carbamazepine, and tropicamide. Additionally, demographic factors such as age (analyzed both as a continuous and categorical variable), gender (male/female) were considered.

The primary dependent variable was suicidality risk, which was classified into high-risk and low-risk groups based on psychiatric records and scores obtained from the Columbia-Suicide Severity Rating Scale (C-SSRS).

Statistical Data Analysis

Odds ratios (ORs) and relative risks (RRs) were calculated to determine the direct association between SC use and suicidality risk. The chi-square test was used to assess categorical differences. A p-value < 0.05 was considered statistically significant for all analyses.

Results

The median age of the total sample was 29.0 years (Q1 = 25.0, Q3 = 35.0). When analyzed by group, the median age in the main group was 30.0 years (Q1 = 26.0, Q3 = 35.0), while in the comparison group, it was 28.5 years (Q1 = 24.0, Q3 = 35.0). A Kruskal-Wallis test was conducted to assess whether there was a statistically significant difference in age distribution between the two groups. The results indicated no significant differences (H = 0.736, p = 0.391), suggesting that the groups were comparable in terms of age.

The majority of the sample consisted of male participants (93.48%, n = 129). In the main group, males accounted for 90.82% (n = 89), while in the comparison group, all participants were male (100.00%, n = 40). Female participants were present only in the main group (6.52%, n = 9), with none in the comparison group. To examine the potential association between sex distribution and substance use group, a chi-square test was performed. The analysis revealed no statistically significant association (Chi² = 2.568, p = 0.109), indicating that sex distribution did not differ significantly between groups.

Substance Use and Suicidality Risk

The analysis assessed the unadjusted associations between six substances and binary suicidality. Key results are summarized in Table 1, which reports odds ratios (OR), relative risks (RR), and the number needed to treat (NNT).

Substance	Yes (High)	Yes (Low)	No (High)	No (Low)
Alfa-PVP	35	55	9	39
Mefedron	5	7	39	87
Pregabalin	6	32	38	62
Gabapentin	0.5 ¹	8	44	86
Carbamazepine	0.5 ¹	4	44	90

Tropicamide	1	5	43	89
#	#	#	#	#
Alfa-PVP	Odds Ratio (95% CI)	Chi ²	p-Value	Relative Risk (95% CI)
Mefedron	2.76 (1.19–6.39)*	4.96	0.026	2.07 (1.09–3.95)*
Pregabalin	1.59 (0.48–5.33)	0.19	0.662	1.35 (0.66–2.76)
Gabapentin	0.31 (0.12–0.80)*	5.27	0.022	0.42 (0.19–0.90)*
Carbamazepine	0.12 (0.01–2.18)	1.72	0.189	0.17 (0.01–2.59)
Tropicamide	0.26 (0.01–4.94)	0.21	0.647	0.34 (0.03–4.67)
#	#	#	#	#
Alfa-PVP	NNT (Benefit / Harm)	Interpretation		
Mefedron	4.97 (Harm)	Significant association; harmful effect.		
Pregabalin	9.33 (Harm)	No significant effect.		
Gabapentin	-4.50 (Benefit)	Significant association; protective effect.		
Carbamazepine	-3.58 (Benefit)	No significant effect.		
Tropicamide	-4.60 (Benefit)	No significant effect.		

Table 1. Unadjusted Analysis of Substances' Impact on Binary Suicidality

Key Findings

The analysis revealed a significant association between Alfa-PVP use and an increased risk of high suicidality. Individuals who used Alfa-PVP were found to be more than twice as likely to exhibit high suicidality compared to non-users (OR = 2.76, 95% CI: 1.19–6.39, p = 0.026; RR = 2.07, 95% CI: 1.09–3.95, p = 0.026). Furthermore, the number needed to treat for harm (NNT = 4.97) suggests that for every approximately five individuals exposed to Alfa-PVP, one additional case of high suicidality is observed.

In contrast, Pregabalin demonstrated a protective effect against suicidality. The analysis indicated that Pregabalin use was associated with a significantly lower risk of high suicidality (OR = 0.31, 95% CI: 0.12–0.80, p = 0.022; RR = 0.42, 95% CI: 0.19–0.90, p = 0.022). Notably, the NNT for benefit (-4.50) suggests that for every five individuals taking Pregabalin, one case of high suicidality is prevented.

The analysis did not identify any statistically significant associations between suicidality and the use of Mephedrone, Gabapentin, Carbamazepine, or Tropicamide. The wide confidence intervals (CIs) crossing 1 indicate that their effects on suicidality risk remain inconclusive (Fig. 1).

Discussion

Interpretation of Key Findings

The results of this study indicate a significant association between Alfa-PVP use and an increased risk of high suicidality, reinforcing concerns about the psychiatric risks associated with synthetic cathinones. The observed OR of 2.76 and RR of 2.07 suggest that individuals using Alfa-PVP are at a markedly higher risk of suicidality compared to non-users. These findings align with prior research indicating that synthetic cathinones, particularly Alfa-PVP, induce severe psychiatric symptoms, including agitation, paranoia, hallucinations, and suicidal ideation. The neurotoxic effects of Alfa-PVP, particularly its impact on dopaminergic and serotonergic pathways, may contribute to this heightened suicidality risk.

Conversely, Pregabalin demonstrated a protective effect, with an OR of 0.31 and RR of 0.42, indicating a significantly lower risk of high suicidality. This finding aligns with previous reports suggesting that Pregabalin possesses anxiolytic and mood-stabilizing properties, which may mitigate suicidality in individuals with substance use disorders. Pregabalin's modulation of calcium channels in the central nervous system could play a role in reducing impulsivity and emotional dysregulation, thereby lowering the likelihood of suicidal behaviors..

Clinical and Public Health Implications

These findings have important clinical and public health implications, particularly concerning harm reduction strategies and treatment approaches for individuals using synthetic cathinones:

Screening for suicidality: Given the strong link between Alfa-PVP and suicidality, clinicians should implement routine screening for suicidal ideation in patients with synthetic cathinone dependence.

Preventive interventions: Public health initiatives should focus on raising awareness about the risks of synthetic cathinones, particularly regarding their association with psychiatric complications.

Limitations

Despite these important findings, several limitations should be acknowledged:

Observational Design: This study employed a retrospective cohort approach, which limits the ability to infer causality. Longitudinal studies are needed to confirm these associations over time.

Confounding Variables: The analysis focused on unadjusted associations. Future research should incorporate multivariate regression models to control for confounders such as psychiatric comorbidities, polysubstance use, and socio-environmental factors.

Small Sample Size for Some Substances: The relatively low sample size for certain substances (e.g., Mephedrone, Carbamazepine, Tropicamide) may have limited statistical power, preventing definitive conclusions about their effects.

Conclusions

This study provides insights into the relationship between synthetic cathinone use and suicidality. The strong association between Alfa-PVP and increased suicidality risk underscores the urgent need for clinical monitoring. Conversely, Pregabalin's protective effect raises interesting questions about its potential role in mitigating suicidality, highlighting the need for further research. These findings contribute to the growing body of evidence on the psychiatric risks of novel psychoactive substances and emphasize the importance of early intervention and targeted prevention efforts.

REFERENCES | ЧОККИ | IQTIBOSLAR:

1. G. Martinotti, S. Schiavone, A. Negri, C. Vannini, L. Trabace, D. De Berardis, et al., "Suicidal behavior and club drugs in young adults," *Brain Sci.*, vol. 11, no. 490, 2021.
2. F. Schifano, "Recent changes in drug abuse scenarios: The new/novel psychoactive substances (NPS) phenomenon," *Brain Sci.*, vol. 8, no. 221, 2018.
3. European Monitoring Centre for Drugs and Drug Addiction, *European Drug Report 2023: Trends and Development* [Online]. Available: https://www.emcdda.europa.eu/publications/european-drug-report/2023/new-psychoactive-substances_en.
4. L. Karila, B. Megarbane, O. Cottencin, and M. Lejoyeux, "Synthetic cathinones: A new public health problem," *Curr. Neuropharmacol.*, vol. 13, no. 1, pp. 12–20, 2015.
5. A. R. Asadullin, A. V. Antsyborov, "Clinical and genetic features of suicidal behavior in patients dependent on synthetic cathinones," *Suicidology*, no. 4, pp. 61–73, 2018. ["Клиническо-генетические особенности суицидального поведения больных, зависимых от синтетических катинонов," *Суицидология*, вып. 4, сс. 61–73, 2018].

5. N. M. Dralyuk, “Some characteristics of synthetic cathinone abuse,” *Narcology*, no. 1, pp. 54–57, 2018. [“Некоторые характеристики злоупотребления синтетическими катинонами,” *Наркология*, вып. 1, сс. 54–57, 2018].
6. M. L. Rokhlina, “Combined use of drugs and other psychoactive substances. Polyaddiction,” *Issues of Narcology*, no. 2, pp. 127–140, 2014. [“Сочетанное употребление наркотиков и других психоактивных веществ. Полизависимость,” *Вопросы наркологии*, вып. 2, сс. 127–140, 2014].
7. S. A. Tsarev, A. V. Shcherban, A. S. Mantsagov, et al., “Analysis of dynamics and causes of high mortality rates from drug poisoning in the Samara region,” *Narcology*, no. 8, pp. 72–79, 2018. [“Анализ динамики и причин высоких показателей смертности от отравлений наркотиками в Самарской области,” *Наркология*, вып. 8, сс. 72–79, 2018].
1. R. H. Rockett, E. D. Caine, H. S. Connery, et al., “Discerning suicide in drug intoxication deaths: Paucity and primacy of suicide notes and psychiatric history,” *PLoS One*, vol. 13, no. 1, p. e0190200, 2018.
8. J. A. Ravshanov, G. K. Abdukakharova, A. I. Rashidov, Z. Sh. Ashurov, E. A. Akhmetova, I. I. Khayredinova, et al., “Synthetic cathinones and suicidal behavior,” *Narcology*, vol. 21, no. 12, pp. 44–54, 2022. [“Синтетические катиноны и суицидальное поведение,” *Наркология*, т. 21, вып. 12, сс. 44–54, 2022].

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