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ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии

საქართველოს სამედიცინო სიახლენი

GEORGIAN MEDICAL NEWS

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GMN: Georgian Medical News is peer-reviewed, published monthly journal committed to promoting the science and art of medicine and the betterment of public health, published by the GMN Editorial Board since 1994. GMN carries original scientific articles on medicine, biology and pharmacy, which are of experimental, theoretical and practical character; publishes original research, reviews, commentaries, editorials, essays, medical news, and correspondence in English and Russian.

GMN is indexed in MEDLINE, SCOPUS, PubMed and VINITI Russian Academy of Sciences. The full text content is available through EBSCO databases.

GMN: Медицинские новости Грузии - ежемесячный рецензируемый научный журнал, издаётся Редакционной коллегией с 1994 года на русском и английском языках в целях поддержки медицинской науки и улучшения здравоохранения. В журнале публикуются оригинальные научные статьи в области медицины, биологии и фармации, статьи обзорного характера, научные сообщения, новости медицины и здравоохранения. Журнал индексируется в MEDLINE, отражён в базе данных SCOPUS, PubMed и ВИНИТИ РАН. Полнотекстовые статьи журнала доступны через БД EBSCO.

GMN: Georgian Medical News – საქართველოს სამედიცინო სიახლენი – არის ყოველთვიური სამეცნიერო სამედიცინო რეცენზირებადი ჟურნალი, გამოიცემა 1994 წლიდან, წარმოადგენს სარედაქციო კოლეგიისა და აშშ-ის მეცნიერების, განათლების, ინდუსტრიის, ხელოვნებისა და ბუნებისმეტყველების საერთაშორისო აკადემიის ერთობლივ გამოცემას. GMN-ში რუსულ და ინგლისურ ენებზე ქვეყნდება ექსპერიმენტული, თეორიული და პრაქტიკული ხასიათის ორიგინალური სამეცნიერო სტატიები მედიცინის, ბიოლოგიისა და ფარმაციის სფეროში, მიმოხილვითი ხასიათის სტატიები.

ჟურნალი ინდექსირებულია MEDLINE-ის საერთაშორისო სისტემაში, ასახულია SCOPUS-ის, PubMed-ის და ВИНИТИ РАН-ის მონაცემთა ბაზებში. სტატიების სრული ტექსტი ხელმისაწვდომია EBSCO-ს მონაცემთა ბაზებიდან.

WEBSITE

www.geomednews.com

К СВЕДЕНИЮ АВТОРОВ!

При направлении статьи в редакцию необходимо соблюдать следующие правила:

1. Статья должна быть представлена в двух экземплярах, на русском или английском языках, напечатанная через **полтора интервала на одной стороне стандартного листа с шириной левого поля в три сантиметра**. Используемый компьютерный шрифт для текста на русском и английском языках - **Times New Roman** (**Кириллица**), для текста на грузинском языке следует использовать **AcadNusx.** Размер шрифта - **12**. К рукописи, напечатанной на компьютере, должен быть приложен CD со статьей.

2. Размер статьи должен быть не менее десяти и не более двадцати страниц машинописи, включая указатель литературы и резюме на английском, русском и грузинском языках.

3. В статье должны быть освещены актуальность данного материала, методы и результаты исследования и их обсуждение.

При представлении в печать научных экспериментальных работ авторы должны указывать вид и количество экспериментальных животных, применявшиеся методы обезболивания и усыпления (в ходе острых опытов).

4. К статье должны быть приложены краткое (на полстраницы) резюме на английском, русском и грузинском языках (включающее следующие разделы: цель исследования, материал и методы, результаты и заключение) и список ключевых слов (key words).

5. Таблицы необходимо представлять в печатной форме. Фотокопии не принимаются. **Все цифровые, итоговые и процентные данные в таблицах должны соответствовать таковым в тексте статьи**. Таблицы и графики должны быть озаглавлены.

6. Фотографии должны быть контрастными, фотокопии с рентгенограмм - в позитивном изображении. Рисунки, чертежи и диаграммы следует озаглавить, пронумеровать и вставить в соответствующее место текста **в tiff формате**.

В подписях к микрофотографиям следует указывать степень увеличения через окуляр или объектив и метод окраски или импрегнации срезов.

7. Фамилии отечественных авторов приводятся в оригинальной транскрипции.

8. При оформлении и направлении статей в журнал МНГ просим авторов соблюдать правила, изложенные в «Единых требованиях к рукописям, представляемым в биомедицинские журналы», принятых Международным комитетом редакторов медицинских журналов - http://www.spinesurgery.ru/files/publish.pdf и http://www.nlm.nih.gov/bsd/uniform_requirements.html
В конце каждой оригинальной статьи приводится библиографический список. В список литературы включаются все материалы, на которые имеются ссылки в тексте. Список составляется в алфавитном порядке и нумеруется. Литературный источник приводится на языке оригинала. В списке литературы сначала приводятся работы, написанные знаками грузинского алфавита, затем кириллицей и латиницей. Ссылки на цитируемые работы в тексте статьи даются в квадратных скобках в виде номера, соответствующего номеру данной работы в списке литературы. Большинство цитированных источников должны быть за последние 5-7 лет.

9. Для получения права на публикацию статья должна иметь от руководителя работы или учреждения визу и сопроводительное отношение, написанные или напечатанные на бланке и заверенные подписью и печатью.

10. В конце статьи должны быть подписи всех авторов, полностью приведены их фамилии, имена и отчества, указаны служебный и домашний номера телефонов и адреса или иные координаты. Количество авторов (соавторов) не должно превышать пяти человек.

11. Редакция оставляет за собой право сокращать и исправлять статьи. Корректура авторам не высылается, вся работа и сверка проводится по авторскому оригиналу.

12. Недопустимо направление в редакцию работ, представленных к печати в иных издательствах или опубликованных в других изданиях.

При нарушении указанных правил статьи не рассматриваются.

REQUIREMENTS

Please note, materials submitted to the Editorial Office Staff are supposed to meet the following requirements:

1. Articles must be provided with a double copy, in English or Russian languages and typed or compu-ter-printed on a single side of standard typing paper, with the left margin of **3** centimeters width, and **1.5** spacing between the lines, typeface - **Times New Roman** (**Cyrillic**), print size - **12** (referring to Georgian and Russian materials). With computer-printed texts please enclose a CD carrying the same file titled with Latin symbols.

2. Size of the article, including index and resume in English, Russian and Georgian languages must be at least 10 pages and not exceed the limit of 20 pages of typed or computer-printed text.

3. Submitted material must include a coverage of a topical subject, research methods, results, and review.

Authors of the scientific-research works must indicate the number of experimental biological species drawn in, list the employed methods of anesthetization and soporific means used during acute tests.

4. Articles must have a short (half page) abstract in English, Russian and Georgian (including the following sections: aim of study, material and methods, results and conclusions) and a list of key words.

5. Tables must be presented in an original typed or computer-printed form, instead of a photocopied version. **Numbers, totals, percentile data on the tables must coincide with those in the texts of the articles.** Tables and graphs must be headed.

6. Photographs are required to be contrasted and must be submitted with doubles. Please number each photograph with a pencil on its back, indicate author's name, title of the article (short version), and mark out its top and bottom parts. Drawings must be accurate, drafts and diagrams drawn in Indian ink (or black ink). Photocopies of the X-ray photographs must be presented in a positive image in **tiff format**.

Accurately numbered subtitles for each illustration must be listed on a separate sheet of paper. In the subtitles for the microphotographs please indicate the ocular and objective lens magnification power, method of coloring or impregnation of the microscopic sections (preparations).

7. Please indicate last names, first and middle initials of the native authors, present names and initials of the foreign authors in the transcription of the original language, enclose in parenthesis corresponding number under which the author is listed in the reference materials.

8. Please follow guidance offered to authors by The International Committee of Medical Journal Editors guidance in its Uniform Requirements for Manuscripts Submitted to Biomedical Journals publication available online at: http://www.nlm.nih.gov/bsd/uniform_requirements.html
http://www.icmje.org/urm_full.pdf
In GMN style for each work cited in the text, a bibliographic reference is given, and this is located at the end of the article under the title "References". All references cited in the text must be listed. The list of references should be arranged alphabetically and then numbered. References are numbered in the text [numbers in square brackets] and in the reference list and numbers are repeated throughout the text as needed. The bibliographic description is given in the language of publication (citations in Georgian script are followed by Cyrillic and Latin).

9. To obtain the rights of publication articles must be accompanied by a visa from the project instructor or the establishment, where the work has been performed, and a reference letter, both written or typed on a special signed form, certified by a stamp or a seal.

10. Articles must be signed by all of the authors at the end, and they must be provided with a list of full names, office and home phone numbers and addresses or other non-office locations where the authors could be reached. The number of the authors (co-authors) must not exceed the limit of 5 people.

11. Editorial Staff reserves the rights to cut down in size and correct the articles. Proof-sheets are not sent out to the authors. The entire editorial and collation work is performed according to the author's original text.

12. Sending in the works that have already been assigned to the press by other Editorial Staffs or have been printed by other publishers is not permissible.

Articles that Fail to Meet the Aforementioned Requirements are not Assigned to be Reviewed.

ავტორთა საყურადღებოდ!

რედაქციაში სტატიის წარმოდგენისას საჭიროა დავიცვათ შემდეგი წესები:

1. სტატია უნდა წარმოადგინოთ 2 ცალად, რუსულ ან ინგლისურ ენებზე,დაბეჭდილი სტანდარტული ფურცლის 1 გვერდზე, 3 სმ სიგანის მარცხენა ველისა და სტრიქონებს შორის 1,5 ინტერვალის დაცვით. გამოყენებული კომპიუტერული შრიფტი რუსულ და ინგლისურენოვან ტექსტებში - **Times New Roman (Кириллица)**, ხოლო ქართულენოვან ტექსტში საჭიროა გამოვიყენოთ **AcadNusx.** შრიფტის ზომა – 12. სტატიას თან უნდა ახლდეს CD სტატიით.

2. სტატიის მოცულობა არ უნდა შეადგენდეს 10 გვერდზე ნაკლებს და 20 გვერდზე მეტს ლიტერატურის სიის და რეზიუმეების (ინგლისურ, რუსულ და ქართულ ენებზე) ჩათვლით.

3. სტატიაში საჭიროა გაშუქდეს: საკითხის აქტუალობა; კვლევის მიზანი; საკვლევი მასალა და გამოყენებული მეთოდები; მიღებული შედეგები და მათი განსჯა. ექსპერიმენტული ხასიათის სტატიების წარმოდგენისას ავტორებმა უნდა მიუთითონ საექსპერიმენტო ცხოველების სახეობა და რაოდენობა; გაუტკივარებისა და დაძინების მეთოდები (მწვავე ცდების პირობებში).

4. სტატიას თან უნდა ახლდეს რეზიუმე ინგლისურ, რუსულ და ქართულ ენებზე არანაკლებ ნახევარი გვერდის მოცულობისა (სათაურის, ავტორების, დაწესებულების მითითებით და უნდა შეიცავდეს შემდეგ განყოფილებებს: მიზანი, მასალა და მეთოდები, შედეგები და დასკვნები; ტექსტუალური ნაწილი არ უნდა იყოს 15 სტრიქონზე ნაკლები) და საკვანძო სიტყვების ჩამონათვალი (key words).

5. ცხრილები საჭიროა წარმოადგინოთ ნაბეჭდი სახით. ყველა ციფრული, შემაჯამებელი და პროცენტული მონაცემები უნდა შეესაბამებოდეს ტექსტში მოყვანილს.

6. ფოტოსურათები უნდა იყოს კონტრასტული; სურათები, ნახაზები, დიაგრამები - დასათაურებული, დანომრილი და სათანადო ადგილას ჩასმული. რენტგენოგრამების ფოტოასლები წარმოადგინეთ პოზიტიური გამოსახულებით **tiff** ფორმატში. მიკროფოტოსურათების წარწერებში საჭიროა მიუთითოთ ოკულარის ან ობიექტივის საშუალებით გადიდების ხარისხი, ანათალების შეღებვის ან იმპრეგნაციის მეთოდი და აღნიშნოთ სურათის ზედა და ქვედა ნაწილები.

7. სამამულო ავტორების გვარები სტატიაში აღინიშნება ინიციალების თანდართვით, უცხოურისა – უცხოური ტრანსკრიპციით.

8. სტატიას თან უნდა ახლდეს ავტორის მიერ გამოყენებული სამამულო და უცხოური შრომების ბიბლიოგრაფიული სია (ბოლო 5-8 წლის სიღრმით). ანბანური წყობით წარმოდგენილ ბიბლიოგრაფიულ სიაში მიუთითეთ ჯერ სამამულო, შემდეგ უცხოელი ავტორები (გვარი, ინიციალები, სტატიის სათაური, ჟურნალის დასახელება, გამოცემის ადგილი, წელი, ჟურნალის №, პირველი და ბოლო გვერდები). მონოგრაფიის შემთხვევაში მიუთითეთ გამოცემის წელი, ადგილი და გვერდების საერთო რაოდენობა. ტექსტში კვადრატულ ფჩხილებში უნდა მიუთითოთ ავტორის შესაბამისი N ლიტერატურის სიის მიხედვით. მიზანშეწონილია, რომ ციტირებული წყაროების უმეტესი ნაწილი იყოს 5-6 წლის სიღრმის.

9. სტატიას თან უნდა ახლდეს: ა) დაწესებულების ან სამეცნიერო ხელმძღვანელის წარდგინება, დამოწმებული ხელმოწერითა და ბეჭდით; ბ) დარგის სპეციალისტის დამოწმებული რეცენზია, რომელშიც მითითებული იქნება საკითხის აქტუალობა, მასალის საკმაობა, მეთოდის სანდოობა, შედეგების სამეცნიერო-პრაქტიკული მნიშვნელობა.

10. სტატიის ბოლოს საჭიროა ყველა ავტორის ხელმოწერა, რომელთა რაოდენობა არ უნდა აღემატებოდეს 5-ს.

11. რედაქცია იტოვებს უფლებას შეასწოროს სტატია. ტექსტზე მუშაობა და შეჯერება ხდება საავტორო ორიგინალის მიხედვით.

12. დაუშვებელია რედაქციაში ისეთი სტატიის წარდგენა, რომელიც დასაბეჭდად წარდგენილი იყო სხვა რედაქციაში ან გამოქვეყნებული იყო სხვა გამოცემებში.

აღნიშნული წესების დარღვევის შემთხვევაში სტატიები არ განიხილება.

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ONTOGENETIC AND PSYCHOSOCIAL DETERMINANTS OF ADDICTIVE BEHAVIOR FORMATION AMONG UKRAINIAN YOUTH

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Abstract.

Introduction: The study examined the ontogenetic psychological mechanisms underlying the development of addictive behavior among young people in modern Ukraine. It aimed to identify how early-life experiences, personality traits, and sociocultural conditions contribute to addictive tendencies and behavioral patterns.

Methods: A descriptive cross-sectional survey was conducted among pre-undergraduate students of Sumy State University. A structured questionnaire covering demographic characteristics, substance use, and psychosocial variables was administered. Data were analyzed using descriptive statistics and Chi-square tests at a significance level of $p = 0.005$.

Results: The response rate was 86%. Men exhibited significantly higher rates of substance use and addiction than women ($p < 0.0001$). Cannabis was the most frequently consumed substance (13%), followed by psychotropic drugs (3.8%). The average age of first use was 15 years. Early-life experiences, such as family environment and peer influence, were key predictors of addiction risk. A higher proportion of respondents with addictive behavior were occasional rather than constant users (32.9% vs. 20%).

Conclusions: The findings revealed that male gender and adverse early-life environments were major determinants of addictive behavior. The results emphasized the need for early preventive interventions, psycho-educational programs in schools and universities, and community awareness campaigns focusing on the socio-economic consequences of addiction.

Key words. Addictive behaviour, ontogenetic mechanisms, personality traits.

Introduction.

The identification of a psychological mechanism for a human being's ontogenetic development and addictive behaviours is without doubt one of the basic problems for educational and developmental psychology. It cannot be said to be fully investigated as it still demanding some further empirical clarifications. This interest becomes emphasized, given the fact that a notable segment of the population is faced with attitude or behaviour problems which are numerous and widespread [1]. In addition, the aftermath of addictions on psychological, personal health, economic and social well-being is highly significant [2]. Appropriate knowledge of socio-psychological factors is important for providing confidential support units to address diverse health situations [3]. Addictive behaviors are chronic conditions that involve seeking and taking substances or non-substances despite their negative consequences [4]. The concept of digitalization across the world has provided a new approach to studying attitude or behavior modification, especially with the use of artificial intelligence (AI) tools [5]. The negative results of constant drug and alcohol consumption, which have been the subject of examination, are an important concern for public health [6]. Aside from disorders related to substance use, such as excessive secretion of thyroxine hormone [7], the scope of addiction has now widened with the consideration of addictive disorders that are not related to substance use, such as behavioral addictions. Presently, disordered gambling is the only recognized behavioral addiction; however, Internet gaming disorder is suggested as a provisional diagnosis in Section III of the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013). Measures for examining behavioral addiction are in agreement with Substance Use Disorders (SUDs) [8]. As suggested by Bello, institutions must be strengthened to ensure that appropriate policies are designed and implemented [4]. The focus of this research is to explore ontogenetic psychological mechanisms underlying the development of addictive behavior in modern Ukraine through a cross-sectional survey study.

Research Questions.

How do early-life experiences (e.g., childhood trauma, family environment) influence the development of addictive tendencies?

i. What is the relationship between personality traits and susceptibility to addictive behavior?

ii. How do socio-cultural and economic factors contribute to the prevalence of addiction in Ukraine?

iii. Are there significant differences in addiction-related psychological mechanisms based on demographics (e.g., age, gender, education level)?

Research Objectives.

i. To assess how early-life experiences influence the development of addictive tendencies.

ii. To examine the relationship between personality traits and susceptibility to addictive behavior

iii. To evaluate socio-cultural and economic factors contribution to the prevalence of addiction in Ukraine.

iv. To assess significant differences in addiction-related psychological mechanisms based on demographic variables.

Research Hypotheses.

i. Early-life experiences significantly influence the development of addictive tendencies.

ii. There is a significant relationship between personality traits and susceptibility to addictive behavior.

iii. Sociocultural and economic factors contribute to the prevalence of addiction in Ukraine.

iv. There are significant differences in addiction-related psychological mechanisms based on demographic variables.

Literature Review.

Conceptual review:

There is extant literature on early life experiences and addiction, however, the reports are not wide enough as to being about a desired change and impact on social and environmental understanding s of drug addiction. An examination of addiction to drugs persons reveals high incidences of various childhood trauma which includes emotional, physical and sexual abuse.

Close to two-third of injection drug users are attributed to traumatic and childhood events, above a-third are graduates of college while others are university graduates. When education becomes inclusive, participation increases for children and adolescents at all levels, and psychotraumatic situations are avoided [9]. In practice, while many individuals with addiction may have experienced childhood trauma, not all addicts have experienced childhood trauma, just as not all abused children develop addiction [9]. Adverse experiences affect an individual's consciousness and can result in post-traumatic stress disorder. Therefore, addressing the challenges of psychological rehabilitation requires urgent attention [10].

Tendencies which can precipitate psychopathologies of addictions are considered crucial. Impulsivity may be contributory to a wide array of psychopathology, involving bipolar disorder [8], attention deficit hyperactivity disorder [9], disorder on borderline personality [10], pathological behaviors associated with Parkinson's disease [11] and substance addictions [12]. Illegitimate production and distribution of drugs encourage addiction which contributes to colossal cost on human resources [13]. This review will focus on recent studies that investigate addictions and impulsivity. Drug addiction is a major social issue worldwide, as no continent is immune to drug abuse. When individuals become addicted to substances, there is a direct effect on the economic and social dimensions of a nation. The effects of addiction are prevalent in families, society, and the workplace. This results in domestic conflict, gang activity in the community, increased crime, and stress on public health systems, with substantial addiction among adolescents and young adults [14,15]. The overall socioeconomic effects are related to expenditures incurred, and to mitigate these, policies for prevention of substance abuse should be designed, comprehensive public education regarding adverse effects is essential, and attention should be given to the impact on human resources [16]. Aside from the fact that addiction is life-threatening, it disrupts family cohesion and creates an economic burden on society. The economic effects of addiction can be difficult to measure, as its production, consumption, and marketing present an enormous challenge for society. Ultimately, this leads to brain changes associated with relapse, which may require magnetic resonance imaging (MRI) to assess possible effects on the human body [17], unemployment, social deterioration, increasing criminal activities, and diminished human capital [15]. According to Okanda, socioeconomic dimensions of university education emphasize adding value to society through career-oriented learning, problem-solving, and community engagement [18]. According to Everitt et al., the economic effects of addiction can be evaluated in two forms: the cost of enforcing policies against substance use by the government and the loss of human productivity, including reduced production, workplace absenteeism, reduced performance, accidents resulting from illnesses and premature death, and loss of earnings related to substance use [19]. In developing and implementing educational programs on awareness and risk minimization regarding young people's exposure to unhealthy lifestyles, compiling health status data on young people will be essential for achieving a holistic approach [20].

Empirical Review.

Bogdanov et al. examined explainable models of alcohol misuse among men in Ukraine which are conflict affected [8]. The sampling techniques of purposive and snowball were used on 66 men who are conflict affected with misuse of alcohol, members of family of men who are into alcohol misuse, workers of community health, providers of support for psychosocial and mental health from diverse locations in Ukraine. In category of men who are subjected to alcohol misuse (n=25), persons with various experiences were detailed:

i) persons who are internally displaced from east of Ukraine and Crimea after 2014;

ii) territorial defense volunteers and veterans of Ukrainian military from surrounding regions; and

iii) men residence withing 5-15 km from the frontline.

Interviews which are semi-structured were conducted in Russian or Ukrainian with inductive and deductive analysis with separate analysis of qualitative data for each sub-group. The explanatory model is a representation of how causes of alcohol misuse is described by men that are afflicted by conflict. Participants identify it that misuse of alcohol among men in Ukraine is for self-treatment and in addressing health related issues and perception of demoralization which results from socio-economic challenges and unsupportive social environments; these behaviours is acceptable in environments deemed appropriate by culture. Providers of service and members of family offers understanding on misuse of alcohol as the men themselves. Conflict-affected men have developed strategies as a form of protection against misuse of alcohol which includes involving in supportive social environments, undertaking mind engaging activities, increase in self-awareness, fear of negative aftermath from misuse of alcohol. Findings reveal rationale for interventions that centers on misuse of alcohol among conflict-affected men and also demonstrate requirement for developing sensitive interventions to address the yet unattended public health issues.

Suffoletto and Chung assessed un-planned drinking as drinking that contradicts intention to minimize alcohol consumption in connection to crucial alcohol-related outcomes of students in college; however, predictors and results are not totally comprehended among young adults' population [18-25]. The study did an identification of event-level and person predictors of unplanned drinking with an exploration of relationship of unscheduled drinking and harmful alcohol-related results in cohort of adults which are educationally and racially diverse. An aggregate of Nine Hundred and Thirty-Eight young adults within age 18-25 years (37 % Black, 70 % female and 60 % non-college) participated in random trial test alcohol interventions on

ecological momentary assessments (EMA) to report intention to drink and consume alcohol two times in a week for not less than four weeks over fourteen weeks period. To control effects of intervention, models of mixed effect examined determinants of negative models of binomial regression which are zero-inflated and unplanned drinking days evaluated the relationship between negative consequences of alcohol and frequency of unplanned drinking on the timeline of a fourteen-week follow-up. Respondents reported consumption of alcohol on 16.8 % of days when there is no plan to drink. For older age, unplanned drinking odds was higher (Ratio of adjusted Odd [aOR] = 1.04, $p < 0.01$), Black race (aOR = 1.24, $p < 0.01$), higher AUDIT-C score (aOR = 1.13, $p < 0.001$), and higher negative urgency score (aOR = 1.04, $p < 0.01$), weekends (aOR = 1.62, $p < 0.001$) and the presence of friends and associates drinking (aOR = 9.35, $p < 0.001$). In comparison to participants in the lowest unplanned drinking day category, those in the highest category showed a 26 % higher negative alcohol consequence rate ratio (RR = 1.25, 95 % CI [1.06, 1.47]). Unplanned drinking in young adults is influenced by individual risk factors and social context. This behavior, when extreme, was associated with increased harmful alcohol-related results. Interventions directed at impulse and peer influence may mitigate unplanned drinking and harmful effects.

Adouani et al. examined addictive behaviour among 430 students at Mohammed University located in Rabat participated in the cross-sectional survey [1]. Incidence of drug use (experimenters and regular users) was 32.8%. Cannabis is with a frequency of 13%, while other substances and psychotropics have a prevalence of 3.8%. The dominant average age of substance user was 15. Male gender had the highest likelihood of becoming drug addicts. A high consumption of drugs is discovered among university students at the compilation of this research work, thus implying the necessity to establish a programme to combat drug addiction, the commencement points of which will without doubt be prevention at the primary and secondary school levels, requiring the involvement of all stakeholders in the field of education.

Toornstra evaluated views of alcohol intake pattern in a sample of youth and adults in western extract of Ukraine [19]. With 37 adults as stakeholders which are aged between 21-63 years and young adults (aged between 12–21 years) and 81 adolescents an in-depth semi-structured interview was conducted with questions which are open-ended. A combination of inductive-deductive analysis of subjective data is yielded in initial coding scheme for both data. The developed themes are socio-economic condition and relation to usage of alcohol, domestic use of alcohol and environment use, general use and views on the effect of misuse of alcohol. Responses indicate daily consumption of alcohol as a youth or sipping as a child forms a health risk. The description of the risks is in the context of its peer pressure, low price and availability. Respondents mentioned that parents who are dependent on alcohol (AD) are affected by risk of a child not properly developed. Interventions include stigmatizing beliefs, aiming current norms, and aiding subjects in developing enduring skills.

Walters & Kosten reviewed studies which engaged in management of early life and assessment of responses to behavior occasioned by psychoactive substances, particularly alcohol, stimulants and opiates in rodents [3]. Though, findings with alcohol are more restricted and mixed, studies with stimulants and opiates show committed support for the ability of these manipulations to increase behavioral responsivity to these substances in line with epidemiological data. Some result show gender differences. Epi-genetic alterations may be reflected through the mechanisms that influence changes. Extant researches aid role of changed DNA methylation (and other mechanisms of epigenetic) as biological responses to early environmental insults. The chemical changes caused by DNA methylation affect transcriptional activity of DNA and can have a long-term effect on individual's phenotype. Such effects are particularly of high magnitude when they occur during sensitive moments of brain development (such as first postnatal weeks in rodents). We review this developing literature as it relates to the known neurobiology of SUDs and AUDs and suggestion for further research. There are implications of findings on cure and avoidance of SUDs and AUDs and could provide insight into factors that aid resiliency.

Deleuze examined features and prevalence of an array of behaviors which demonstrated addictiveness in population sample with identification of reliable subgroups of individuals which displays addictive behaviors [20]. The participants which serve as respondents to completing an online survey is Seven hundred and seventy participants. The survey looked into presence with features of core recognized substance addictions (Cannabis, alcohol and tobacco) and behavioral addictions (cell phone overuse, gambling, compulsive shopping and intensive work involvement) over a period of three-month. Notable aspects of addiction were measured for each of reported behavior, including negative results, emotional triggers (positive and negative emotional situations), search for pleasure or stimulation, loss of control and cognitive salience. Latent class analysis enables identification of three clinically and theoretically relevant subgroups of individuals. The first-class groups are problematic users, i.e., addiction-prone individuals. The second-class groups are risky users who engage in potentially frequent addictive behaviors to regulate emotional states (especially over involvement in regular behaviors such as buying work or eating). The third class is the group of respondents who are not given to behaviours which are addictive. The different groups in existence within the population give better understanding of the uniqueness between non-problematic and problematic addiction-like behaviors.

Materials and Methods.

This study employs descriptive cross-sectional survey. The population of study is Pre-undergraduates of Sumy State University. Questionnaire was designed covering the research questions and administered to sample data. Privacy of data was honored all through the phase of data collection as respondents are kept anonymous and consents gotten. The questionnaire captures data on demographics of respondents as well as their use of psychoactive substances. Analysis of data was achieved through descriptive statistics and Chi-square at P.005 level of significance. To enhance the reliability and robustness of inferences drawn from statistical data, a stringent significance

threshold of p = 0.005 was employed to mitigate the probability of Type I errors resulting from multiple comparisons across demographic and psychosocial variables. In the context of this study, ontogenetic psychological mechanisms operationally entail processes of psychological development influenced by the environment, family situation, trait attributes, and childhood trauma, which are determinants of susceptibility to addictive behavior. The measurement was achieved using adapted Family Environment and Peer Influence scales (α = 0.74–0.86), the Childhood Trauma Questionnaire–Short Form (CTQ-SF) (Cronbach's $\alpha \approx 0.89$), and the Ten-Item Personality Inventory (TIPI) ($\alpha \approx 0.72$). Items were rated on a 5-point Likert scale.

Results.

Socio-demographic Data:

The rate of participation of survey in this study was 86% (n=370) with predominance of female with a gender ratio of 0.4. In terms of assessment, 20-22 age bracket is the average represented age group, which is also the most represented age group, with range of extreme age at 19-30 years of age. About 27% of the students participate in extracurricular activities while 40% students reside at a distance from home.

Status of Addictive Behaviours:

Measuring dominance of drug use (that is, considering constant users and occasional users) represents 32.9% of which regular use represents 20% (N 74).

Considering ingestion of substances, Cannabis is with a frequency of 13% while ingestion of other substances represents 3.8%. Average age of substance use was 15 at extreme age range of 10-23years. Regarding first consumers, it was revealed that 41.2% of students into drugs were influenced by their environment (peers, family members and colleague at work), whereas 32.2% were influenced by the need to explore and experiment. While 14.7% is influenced by occasion of festivities and the need to celebrate. Other constraints among the students such as depression, stress and anxiety results into 11.8% using drugs.

Profiling of Drug Users:

In profiling addictive behaviour on the basis of gender, Men consume more and are more addicted to substances than women ($p<0.0001$). Repeaters among drug addicts are three times higher than population studied ($p<0.0001$) and about 94% of relatives of users were discovered to be drug users themselves (Table 1).

Table 1. *Features of Drug Users and Non-Users.*

	Consumers	Non-Consumers	p
Gender Ratio (Men/ Women)	0.8	0.4	<0,0001
Repeaters Ratio	32%	11%	<0,0001
Consumers surroundings	94%	72%	<0,0001

The percentages revealed in the "Consumers Surroundings" row in Table 1 represent the proportion of individuals in each respondent's social environment who were identified as drug users. "Consumers 94%" indicates that 94% of respondents who use drugs reported being around relatives or peers who are also drug users, while "Non-Consumers 72%" indicates that 72% of non-using respondents reported some degree of exposure to drug users in their environment. Therefore, this variable reflects environmental exposure to substance use rather than usage rates among respondents.

Features of Drug Users:

On evaluation of illegal substance intake and psychoactive elements, the substance with highest rate of use is cannabis. It was discovered that 62% of students used cannabis or related psychotropic substances while 21% take other drugs. About 75% of present addicts have made a failed attempt to refrain from the habit. 87% represent percentage of drug addicts who have thought about long-term consequence of their habit than non-addicts.

Cannabis:

Among the population, 13% of respondents used cannabis on a regular basis. It is revealed that male gender (28%) was more likely to use cannabis than female (3%), and that individuals around them had attempted the use of the substance (SR = 0.87). Also, 42% of Cannabis users had attempted the drug at a time before. More than 50% of the students smoked between two to five portions on a daily basis (Table 2).

Table 2. *Rate of the number of joints consumed per day among student cannabis consumers.*

Number of joints/day	Percentage (%)
From 1 to 3	34.6%
From 3 to 6	57.7%
More than 6	7.7%

Users of cannabis are polydrug users (Figure 1), while 62% takes alcohol and 20% takes psychotropic drugs.

Psychotropic drugs:

The incidence of psychotropic drug use was 3.8% (N = 11) of the population with Benzodiazepines as the most common products taken. They are all male tobacco and cannabis smokers (Figure 2), 90% of them take alcohol, and 80% take other drugs; 45% of them have repeated at least once. In this study, we found that some individuals take cannabis alone, but no students reported using psychotropic substances alone.

Other drugs

For other drugs, 3.8% said they are users of heroin, cocaine ecstasy and LSD.

Analytical Studies of Addictive Behaviors

The survey enables a detection of huge difference in addictive behaviour between the two gender. The male gender was dominant (Figure 3).

Out of the genders, male has the highest likelihood of becoming addicted to drug (OR = 43.6). It was statistically significant among students with drug-using peers (OR = 11.7) and repeaters (OR = 7.4). The danger was similarly elevated (OR = 8.19)

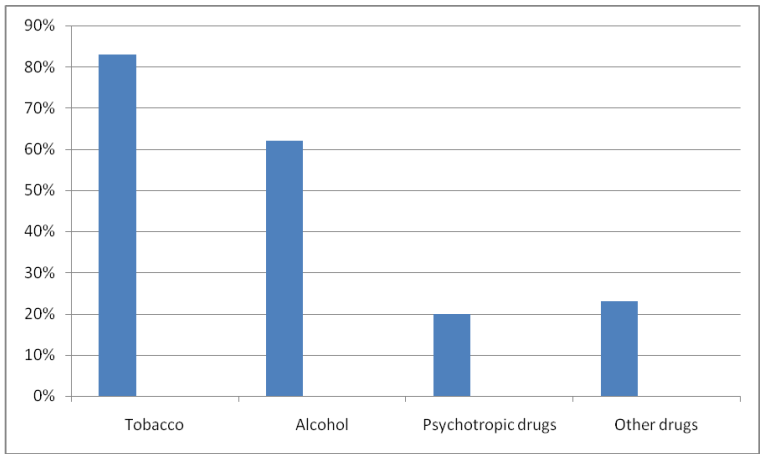

Figure 1. *Prevalence of other drug use among cannabis users.*

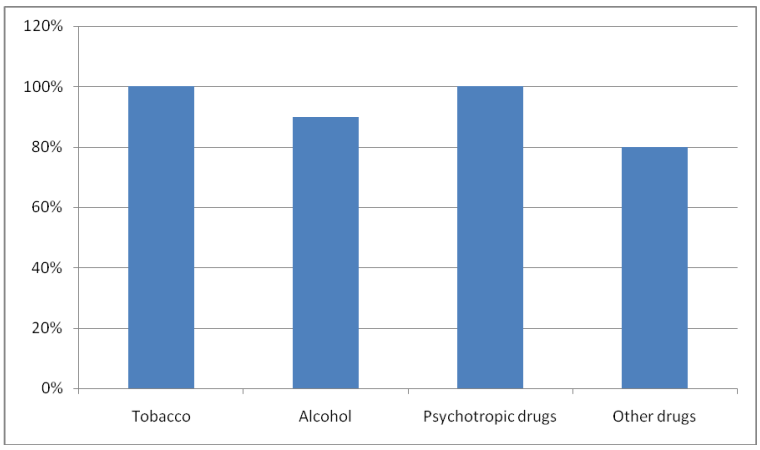

Figure 2. *Prevalence of consumption of other drugs among users of psychotropic drugs.*

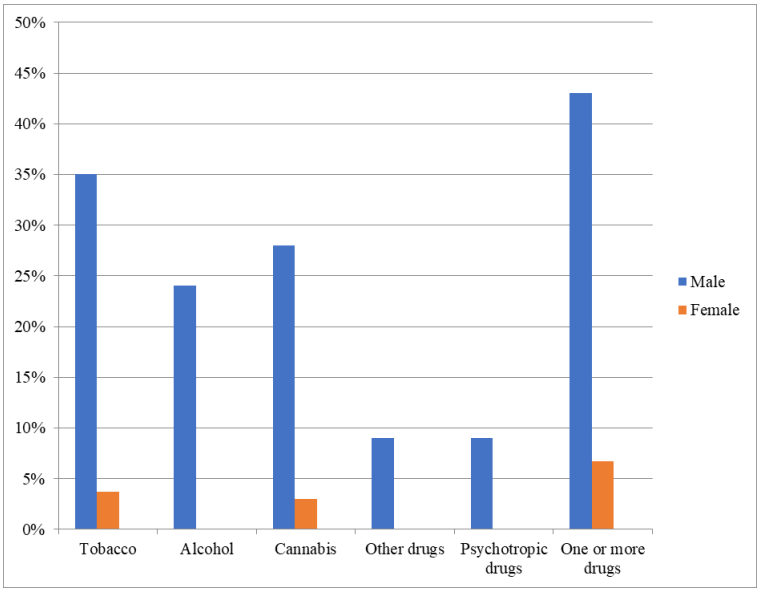

Figure 3. *Prevalence of the consumption of different drugs according to gender (*P of Chi-square test <0.0001 significant).*

among students whose peers consumed it. Experimentation results in the risky anchoring of these behaviours (OR = 12).

According to use of drugs which differs between genders, men use drugs more than women.

Main pointer of substance abuse among respondents:

The interest of this study is to determine factors that enable detection of risk associated with experimenting or consumption of drugs (Table 3), at confidence interval of 95%.

Note: Odds ratios (OR) are calculated using the following reference categories: Sex: women; Repetitions: students without prior repetitions; Already tested once: students who had never indulged in any substance; Surroundings that use drugs: respondents whose immediate environment does not include drug users.

Table 3. *Risk factors for drug addiction and their P and OR values in students.*

Settings	**P**	**QR**
Sex	<0.0001	If Men: OR=43,6
Study Year	<0.0001	
Age	<0.0001	
Repetitions	<0.0001	OR=7,8
Extracurricular Activities	0.368	OR=1,1
Residence (Away from Home)	0.62	1,7
Already tested once	<0.0001	12,23
Surroundings that use drugs	<0.0001	8,19

Discussion.

The total response rate was 86.1% (N 371). Participation in this epidemiology research may be regarded as very satisfying. This university's students use drugs (cannabis, psychotropic medications, and other substances such as LSD, heroin, and cocaine), with varying prevalences and predominance of prevalence rates among males. According to the study findings, young individuals between the ages of 19 and 20 are more prone than others to take drugs in a risky and harmful manner. Our findings support those of a nationwide study on the incidence of mental problems and drug addiction, which found that young people are increasingly using harmful drugs.

The incidence of drugs intake (occasional users and regular users) was 32.9% (N 122), with regular use accounting for 20% of the total (N 74). Some users, around 25%, do not anticipate abstinence or a complete cessation of addiction. The danger of progressing from regulated and infrequent intake to addiction varies from person to person. Some individuals get addicted to drugs even after their first exposure. Genetic risk factors may explain the addict-genic character of legal and illegal drugs in certain people [21].

Cannabis is the most commonly consumed substance, followed by prescription psychotropic drugs that must be prescribed and dispensed according to rigorous regulations. Cannabis use can lead to other drug use, such as heroin or hallucinogens, and the development of polydrug use. The lower frequency of drug addiction among females is explained by sociocultural or religious factors that render these behaviors socially unacceptable or inappropriate, thereby shielding women from this problem. Cannabis consumption is associated with age and gender. According to the findings of most studies, males are more likely than females to report having used cannabis (28% vs. 3%) [22]. The typical age of initiation in the studied sample is 15 years, consistent with the findings of Ersche et al. [23]. This can be attributed to the natural curiosity of adolescents and their increasing desire for independence and autonomy. Consequently, the school environment provides an opportunity for them to distance themselves from parental control and serves as a social setting where students seek identification with and belonging to a peer group. To be accepted, the adolescent is encouraged to mimic the behaviours, among other things, and the usage then becomes a way of socialization and integration for the teenager. The same result was found in a national survey on mental health and drug addiction, demonstrating that the use of harmful drugs is becoming more common among young people. In our sample, the use of psychoactive drugs was 3.8%, which was lower than the national survey. This may be explained by university students' understanding of these chemicals. The incidence of cannabis usage among students is 9.8%. The use of psychoactive chemicals includes a broad variety of products, including hypnotics and tranquillizers (41.0%), opiates (5.3%), stimulants (1.9%), alcohol (59.0%), opiates (5.3%), or stimulants (1.8%) were all used by 10.9% of those who were not smokers. In contrast to the views of these health experts, our research revealed low prevalence for all behaviours, with the exception of cannabis use, which is legal in our nation.

The prevalence of cannabis observed in this study (13%) is equivalent to that reported by Adouani et al. (13% in a sample of Moroccan university students), while psychotropic drug rates (3.8%) and other illicit substances (3.8%) fall within the ranges reported in surveys at comparable universities.

It is crucial to note that the sample exclusively comprised pre-undergraduate students from Sumy State University; therefore, findings cannot be generalized to all youth in Ukraine. Consequently, the term “Ukrainian youth” as used in this study refers to university-age students in Ukraine, and caution should be exercised to avoid overgeneralization.

Conclusion.

The focus of study is exploration of ontogenetic psychological mechanisms underlying the development of addictive behavior in modern Ukraine through a cross-sectional survey study. This poll is part of the larger picture of the battle against drug addiction, which has to be intensified on a nationwide basis. Especially when conducting surveys in a university context, this is a quick and inexpensive way to collect data about addictive behaviour.

A high level of drugs consumption among students in university is discovered, this implies the need to establish programmes on drug addiction, through the grassroots at primary and secondary level of education, while involving relevant stakeholders in the education sector.

Despite the fact that drug addiction is a worldwide social and health problem, we still do not understand the true nature of this

scourge in our country. The completion of this study provided us with the opportunity to reflect on drug addiction.

Hence, the following are recommended:

- Increasing understanding and knowledge.
- Organize drug-awareness caravans to expand national efforts against drug abuse.
- Create specialized infrastructure to offer students specialized control support.
- Staff members should get weaning aid training.
- Create posters warning against drug use in various campus locations.

The focus of study is to explore the ontogenetic psychological mechanisms underlying the development of addictive behavior in modern Ukraine. It is suggested that further studies should estilo into role of genetics and addictive behavior.

Financing.

No financing.

Conflict of interest.

The author declares that he has no potential conflicts of interest related to the study presented in this paper.

Ethical approval.

Ethical approval was obtained through an expedited (non-meeting) review; no ethics committee meeting was convened. Participation was voluntary and anonymous, and informed consent was obtained from all respondents.

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