

Prevalence and Patterns of Drug Use Among People in Al-Najaf Governorate, Iraq

Hasanein I. Hakim¹, Layla Saleh Abdul-Hassan² and Miaad K. Alkhudhairi³

^{1, 2, 3} College of Health and Medical Techniques, Al-Furat Al-Awsat Technical University, Iraq.

E-mail: hasanein.hakim.chm@student.atu.edu.iq, kuh.lyla12@atu.edu.iq, kuh.mead@atu.edu.iq

ABSTRACT

After a series of instability Iraq confronted in the past decades, the drug abuse issue has grown and is now a complex national concern where the rise in drug transshipment through the country and neighbor countries accompanies noticeable increased consumption of drugs especially those associated with transnational criminal networks such as amphetamines. This is a descriptive cross-sectional epidemiological study conducted in Al-Najaf governorate from January to March 2024, qualitative data based on the correction institutions of the Ministry of the Interior using a non-probability sample since lack of precise sample frame or data about the real prevalence or rate of the problem. The study recruited 288 drug users all between 20-64 years, 31(10.8%) were females and 257(89.2%) were males (49%). 237 (82%) of the drug users of young adults between 20 to 40 years old. The objective was to investigate personal history and examine the extent and patterns of the abuse of drugs, using a structured questionnaire designed and modified after reviewing relevant studies. The study found that the majority of the participants smoked nicotine throughout their lifetime as 60.8% smoked hookah, 15% smoked e-cigarettes and 86% smoked cigarettes with about 75% current heavy smokers, 51% of participants used alcohol as lifetime prevalence with more than 32% used it weekly. A large percentage: 88% abused more than one type of illicit drug with amphetamine stimulants (methamphetamine and fenethylline) as the most commonly abused illicit drugs among the majority of the participants. The lifetime prevalence of prescription drug use was 86%. 60% used more than one method of administration, while 8% used drugs by injection. The study concluded that a large percentage of the study participants were polydrug abusers with extensive patterns of use which revealed the complex status of which stresses a holistic approach to managing the problem.

Keywords: Drug abuse, drug use patterns, prescription drugs, illicit drugs.

Article Information

Received: June 21, 2024; Revised: August 27, 2024; Online: September, 2024

INTRODUCTION

Substance abuse refers to the use of a substance to modify or control mood or state of mind in a manner that is illegal or harmful to oneself or others and is considered problematic use, or abuse. Substance use disorders (SUDs) have been associated with a substantial increase in mortality and morbidity worldwide over the last decades. As well as harms to individual and public health, illicit drug use contributes to problems that transcend borders. These include increases in drug trafficking and access to unregulated drugs, the rise of infectious diseases related to drugs [1]. According to ICD-10(International Classification of Diseases), a medical classification list by World Health Organization (WHO) recognizes psychoactive substances as those, the self-administration of which produces mental and behavioral disorders. The list includes alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, caffeine and other stimulating agents, hallucinogens, tobacco and other

volatile substance. The more alarming matter is the recent surge in the rate of the involvement of the young population into this hazardous problem with its physical, social, psychological, economic, and health implications [2].

Statistically speaking, 2 billion worldwide populations consume alcoholic beverages, out of which 76.3 million have disorders having suicidal tendencies. Other psychological changes include mood disorders like anxiety, depression, thought disorders, and personality disorders. Tobacco causes more death than all psychoactive substances combined, including 3 million premature deaths (6% of total) and 30% of all cancer deaths [3]. In 2021, one in seventeen people between 15 to 64 years had abused drugs in the past year worldwide as 23% more than the earlier decade where 36 million of people had abused amphetamines, 22 million used cocaine and 20 million had abused "ecstasy" while 60million of people engaged in opioid abuse. The estimation is that there 39-5 million people suffers substance use disorders worldwide in 2021 with only 20% received treatment. Liver diseases attribute to hepatitis C account for half of drug related deaths with half million deaths related to drug in 2019 [4].

In Iraq, the problem is relatively recent, and it seems that it is growing very fast. During last period, Iraq has witnessed a noticeable increase in substance abuse, and this phenomenon has become a major threat to the health, security and economic system of the community.[5]Summary by UNODC (2024) mentioned that Iraqi public health service registered rise in substance use disorders where the numbers doubled to 6101 in 2021 compared to only 2979 in 2019. There is insufficient research or a clear and accurate picture of the extent of the problem of the spread of drug abuse in Iraq [6],[7], so this study attempted to shed light on this phenomenon and explore the types of

substances that are widely abused, and the rate of such abuse to help develop a clear and accurate picture that helps decision-makers find solutions to this growing health problem.

METHODOLOGY

Design of Study and Study Sample

Epidemiological descriptive study of population comprised people who were categorized as lastly, within 3 months drug use and lifetime prevalence of drug use. Participants from both sexes who aged 18 years and older were recruited using purposive or subjective non-probability sampling technique since lack of precise rate of the abuse of drugs in Iraq. It was conducted through the first quarter of 2024 at the Lockup and Transfer Division of the Ministry of Interior, and the Rehabilitation Center for Drug Users and Addicts of the Directorate of Narcotics and Psychotropic Substances Affairs in Al-Najaf Governorate.

Instruments and Procedure

All participants received an explanation of the study, they were given instructions about the questionnaire and asked to answer fully and honestly. The English version of "the Alcohol, smoking, and Substance Involvement Screening Test" (ASSIST) instrument were used to describe and assess the variables of outcomes (lifetime and past three months of substance use) by asking "yes" or "no" questions depending on WHO frame regarding assessment of drug abuse. Face to face interview of those illiterate participants and self-administered questionnaires of those who can perform it.

Study Ethics

The study was conducted in accordance with the Declaration of Helsinki and the ethical approach of the Al-Furat Al-Awsat Technical University. Permission was obtained from the participants and the institutions in which the study was conducted. Pledges were made that the personal data of the participants would not be used, and that the confidentiality of the collected information would be maintained.

Statistical Methods

Epidemiological cross sectional descriptive statistics represented by proportions of the drug use and patterns of use of drugs using an excel program to explore findings, displaying the studied population distribution according to the personal history of drug use, extent of drug abuse represented by percentages, frequency Tables, and figures.

RESULTS

The study explored the personal history of people who used drugs and extent of their abuse of drugs. It found that 175 (60.8%) of participants used hookah through their lifetime, 24/288 (8%) used electronic cigarettes, 18/288 (6%) used them both, and 249/288 (86%) smoked cigarettes through their lifetime. About three-quarters of them were heavy smokers, smoking more than 20 cigarettes daily. The study found that 147/288 (51%) of the participants used alcohol as lifetime prevalence, and regarding the frequency of alcohol use, it found that 79/147 (53.7%) of the participants used alcohol monthly, 48/147 (32.6%) abused it weekly while 25/147 (17%) abused it on daily bases, whereas the finding of concern is that the large percentage 249 (86%) of the participant of the drug abusers had abused prescription drugs like stimulants or sedatives previously. 253 (87.9%) of the studied participants used more than one type of illicit drugs where the

majority of them abused amphetamine stimulants, methamphetamine and phenethylamine together.

Regarding frequency of use of drugs, those who on daily bases of use represented by 136/288 (47%) of the drug abusers followed by 114/288 (39.6%) of them abused drugs several times a day and only few numbers 38 (13.2%) of them abused drugs weekly. Regarding the length of period they spent using illicit drugs, the results noted that 128/288 (44.4%) of the participants spent 1-3 years using drugs followed by 105/288 (36.5%) of them spent about one year using drugs whereas 55/288(19%) of the participants spent more than three years in abusing illicit drugs. A large percentage of the participants report using illicit drugs after the age of eighteen while 55/288(19%) of them abused illicit drugs early before the age of 18 years. The most common illicit drugs abused in the last three months among the studied participants were amphetamine type stimulants (ATS) by 67/288 (23%) as shown in Table 1. The study revealed that the greatest percentage 248/288 (86%) of the studied drug abusers had abused prescription drugs previously without medical supervision, where the study noted that a high percentage 72/288 (25%) of them were using sleeping pills, 55/288(19%) abused cough syrup codeine, 49/288 (17%) had abused pain reliever Tramadol while 64/288 (22%) of the participants had abused more than one type of prescription drugs like diazepam(valium), Tramadol and codeine as concurrent or sequential patterns of use while a smaller percentage (3%) of them were using other types of sedatives as show in Figure 1.

The study revealed the methods of administration of abused drugs, where it noted that the highest percentage 173 (60%) of the study participants used more than one method of use such as smoking, swallowing, inhalation or sniffing drugs, followed by those who used

smoking only by 44 (15%). The concern finding of study was the number of those who inject drugs which represented by 23 (8%) of

the participants while the lowest percentage 18 (6%) used drugs by drinking method only as shown in Figure 2.

Table 1: Personal history and patterns of drug abuse among 288 studied samples of drug users.

Variables		Frequency (n)	Percent (%)
Ever nicotine abuse	Hookah	175	60.8
	electronic cigarette	24	8.3
	Hookah+ electronic cigarette	18	6.2
	Cigarettes	249	86
Number of cigarettes smoked daily	More than 20cigarettes	217	75.3
	Less than 20 cigarettes	26	9
Ever alcohol abuse	Lifetime alcohol use	147	51
Frequency of alcohol use	Daily	25	17
	Weekly	48	32.7
	Monthly	74	50.3
Frequency of using illicit drugs	Once a day	136	47.2
	Several times a day	114	39.6
	Weekly	38	13.2
Age of initiation of narcotic drug use other than nicotine and alcohol	Fourteen years and younger	15	5.2
	Fifteen to seventeen years	40	13.8
	Eighteen years and older	233	80.9
Period spent using illicit drugs	1> year	105	36.5
	1-3 years	128	44.4
	More than 3 years	55	19.1
Abused drugs in the past three months	More than one drug	31	10.8
	Hashish	3	1.0
	Crystal	34	11.8
	Captagon	33	11.5
	Sedatives	16	5.6
	Nicotine (cigarettes)	243	84.4
Inhaled organic substances		65	22.6

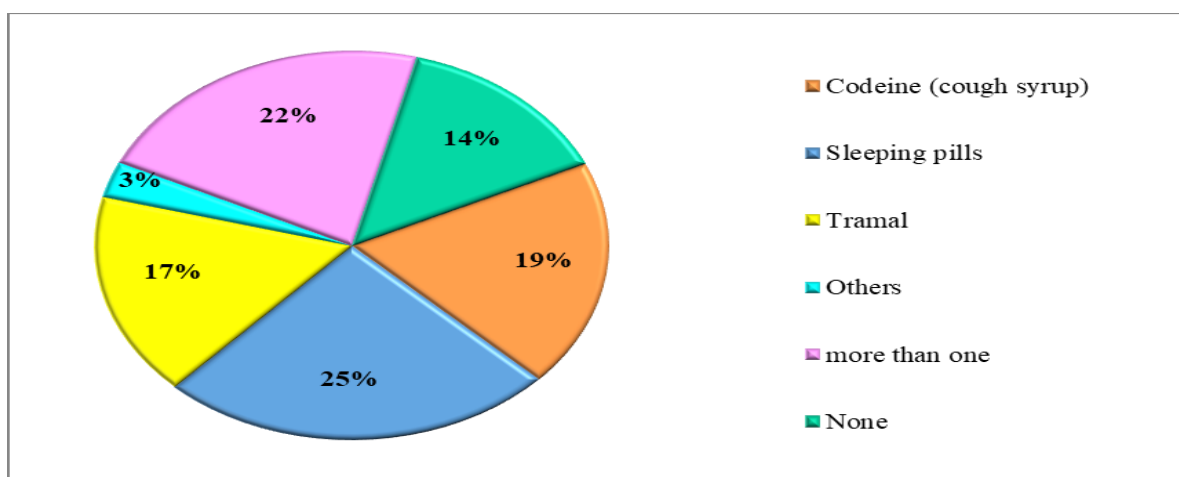


FIGURE 1. Distribution of drug abusers according to prescription drugs which were taken previously without medical prescription.

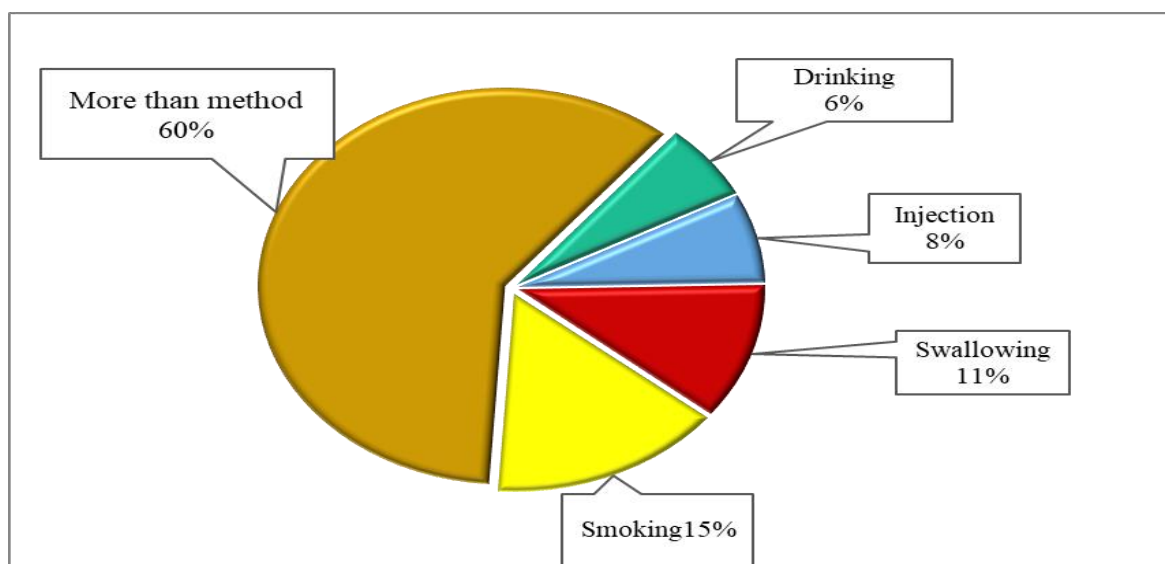


FIGURE 2. Method of drug administration among a studied sample of drug users.

DISCUSSION

Drug abuse issue has grown, and it represents a complex national issue with significant financial, health, and social costs [8]. The number of persons who appeared in front of a judge in the Iraqi courts more than doubled in 2020 as compared to 2016, less than five percent of those who abused drugs were treated in the hospital or health care centers in Iraq in the last years. The determinant, of the statistically significant differences between the Iraqi governorates in the commonest substance abuse, can be the position of each governorate

and the presence of seaports, airports, and border cross-points [9]. Political shifts following the American invasion of Iraq had an impact on local stability and allowed Iraq to resume unprecedented contact with the outside world after decades of isolation. Political openness led to an explosion in business and tourism as well as the entry of inexpensive illegal narcotics. The problem is made much worse by the weak borders, the country has become a gateway for smuggling drugs into neighboring countries and a crucial location for consumption [6].

Addiction to drugs can occur at any age, however, the likelihood of addiction increases with the history of the initiation of drug usage NIDA (2018). The study noticed that the majority of the participants (about 61%), had used hookah throughout their lifetime [10]. Hookah use has increased and become more prevalent lately in Kurdistan, and neighboring countries like Syria while it is like a custom or tradition in Iran. In Iraq, it is perhaps related to some social and environmental reasons and determinants, like the absence of family control, the negative influence of friends, and societal acceptance of smokers (for example), especially males. Added to this is the availability of these substances, the possibility of purchasing them easily, and the low taxes on them. It is also aggravated by decreased personal judgment and other behavioral triggers such as curiosity and other psychological and social stresses, especially during adolescence and early adulthood which make an opportunity to get into abusing drugs early.

Eighty-six percent of the study participants have smoked cigarettes throughout their lifetime while only 14% of them did not smoke. The majority (about two-thirds) of cigarette smokers started smoking before the age of 18, with more than three-quarters categorized as heavy smokers who smoked more than one packet daily. While 51% of the participants have had drunk alcohol throughout their lifetime more than half of those who abused alcohol had started drinking before eighteen, and 17% and 33% of them used it on a daily and weekly base respectively.

Compared to heavy drinkers or smokers alone, studies noted a higher steeper delay discounting rate among heavy smokers. When smoking and drinking together are considered more serious forms of drug abuse. According to research from the National Institute on Drug Abuse in 2022, teenagers who exhibit several

symptoms of a substance use disorder do not stop the symptomatic drug use as adults [11] Studies mentioned that it has been stated that nicotine serves as a gateway drug for alcohol and other addictive substances. The most compelling evidence also points to a possible gateway drug link between early alcohol consumption and later drug usage [12]. According to a survey, over 70% of teenagers in Europe start using cocaine while under the influence of alcohol.

The most concerning issue as mentioned regarding cigarette and alcohol use is the dangerous involvement in abusing narcotic drugs, where the greatest percent; 87% of the participants who abused illicit drugs used them on a daily basis or multiple times a day, where the majority of drug users occasionally use multiple drugs, sequential or concurrent use involving medications without prescription and illicit hard drugs. One of them said that he took 40 pills of diazepam in one day only. The study noted that the largest percentage of drug users had taken one type or more of sedatives or sleeping pills without medical supervision [13]. It demonstrated that there was little limitation on Benzhexol, valium, and codeine, which may sometimes be purchased without a prescription. Considering that less than ten percent of those who take tramadol do so for medicinal reasons [14].

Research on the frequency of usage indicates that the possibility of an individual consuming many psychoactive substances is more common than unusual, with high health hazards involved [15, 16] A significant amount of medication therapy, patients often use multiple drugs at once. The most popular combos are opioids, cocaine, and cannabis; cocaine, cannabis, and alcohol; and stimulants, alcohol, and cannabis. Sixty percent of the studied abusers of drugs used more than one method of administration. The concerned percentage represented 8% of the participants

who had injected drugs. The studies showed that the extent of abuse of drugs and the dependence and related negative effects depended on factors involved in the frequency of use and method of administration with injection considered as the dangerous one. Individuals who inject drugs are more likely to experience overdose and get infectious diseases (such as HIV and hepatitis C virus). Injecting drug users are also more likely to experience venous health issues, infective endocarditis, and soft tissue and skin infections [17, 18]. Drug use disorders were the largest contributor to the drug burden in almost all regions, particularly Australasia, high-income North America, North Africa, and the Middle East, with prevalence being higher for men than women significantly [18].

CONCLUSIONS

The study revealed an extensive pattern of drug use among the studied participants including nicotine, alcohol, prescription drugs, and illicit drugs. The findings predict a complex status regarding such involvement in abusing drugs with its expected terrible impacts which stress the need for a holistic approach of management including medical, behavioral, and social measurements to deal with the problem.

REFERENCES

[1] NIDA. 2024, January 5. Drug Misuse and Addiction. Retrieved from <https://nida.nih.gov/publications/drugs-brains-behavior-science-addiction/drug-misuse-addiction> on 2024, March 16

[2] Igunma, C. H., Ohaeri, B., Ojo, I. O., & Babarimisa, O. (2022). Risk Factors Associated with Substance Abuse among Adolescents. *International Neuropsychiatric Disease Journal*, 11–24. <https://doi.org/10.9734/indj/2022/v18i130214>

[3] Kovilveetil, A. N. (2021b). A study on substance abuse among young people (10-24 years) in urban slums of Jorhat, Assam. *Medical Science and Discovery*, 8(12),677684. <https://doi.org/10.36472/msd.v8i12.629>Sciences, 62. <https://doi.org/10.33193/jalhss.62.2020.368>

[4] World Drug Report 2023. (n.d.). United Nations: Office on Drugs and Crime. <https://www.unodc.org/unodc/en/data-and-analysis/world-drug-report-2023.htm>

[5] World Drug Report 2023. (n.d.). United Nations: Office on Drugs and Crime. <https://www.unodc.org/unodc/en/data-and-analysis/world-drug-report-2023.html>

[6] Alkhudhairi, M. K., Al-Tufaili, S. A., Al-Qazzaz, A. A., & Al-Mosauy, M. M. (2024). A survey study on drug abuse among young people in Al-Najaf governorate, Iraq. *AIPConference Proceedings*. <https://doi.org/10.1063/5.0191846>

[7] Hakim, H. I., Alkhudhairi, M. K., & Abdul-Hasan, L. S. (2024). Study of the sociodemographic and environmental characteristics of drug abuse detainees in Al-Najaf Governorate, Iraq. *Obstetrics and Gynaecology Forum*, 34(3s), 1934-1943. <https://2u.pw/71NebDAO>

[8] Jawad, A. P. D. E. M. (2020). Addiction to Drugs Causes and Treatment (A field study in the city of Baghdad). *Journal of Arts, Literature, Humanities and Social*.

[9] Muzil, J. A., D., Abdulwahid, D. A., Abed, A. H., & Kammad, Z. A. (2023). Substance abuse in Iraq, Quantifying the Picture. *Journal of Population Therapeutics and Clinical Pharmacology*, 30(12), 302–313. <https://doi.org/10.47750/jptcp.2023.30.12.036>

[10] Mahmood, N., Othman, S., Al-Tawil, N., & Al-Hadithi, T. (2019). Substance use among

high school students in Erbil City, Iraq: prevalence and potential contributing factors. *Eastern Mediterranean Health Journal*, 25(11), 806–812.

<https://doi.org/10.26719/emhj.19.022>

[11] Chen, G., Rahman, S., & Lutfy, K. (2023). E-cigarettes may serve as a gateway to conventional cigarettes and other addictive drugs. *Advances in Drug and Alcohol Research*, 3.

[12] European Monitoring Centre for Drugs and Drug Addiction (2021), *Polydrug use: health and social responses*, <https://www.emcdda.europa.eu/publications/mini-guides/polydrug-use-health>

[13] Al-Hemier, N., Dabbagh, R., Hashim, M. T., Al-Hasnawi, S. M., Abutiheen, A. a. K., Abdulghani, E. A., Al-Diwan, J. K., Kak, N., Mossawi, H. A., Maxwell, J. C., Brecht, M., Antonini, V. P., Hasson, A., & Rawson, R. A. (2017). Self-reported substance use in Iraq: findings from the Iraqi National Household Survey of Alcohol and Drug Use, 2014. *Addiction*, 112(8), 1470–1479. <https://doi.org/10.1111/add.13800>

[14] Abd-Elkader, M. R., Kabbash, I. A., El-Sallamy, R. M., El-Sawy, H., & Gad, E. A. (2020). Tramadol abuse among workers in an industrial city in mid-Nile Delta region, Egypt. *Environmental Science and Pollution Research*, 27(30), 37549–37556. <https://doi.org/10.1007/s11356-020-08040-8>

[15] Font-Mayolas S, Calvo F. Polydrug Definition and Assessment: The State of the Art. *Int J Environ Res Public Health*. 2022 Oct 19;19(20):13542. doi: 10.3390/ijerph192013542. PMID: 36294127; PMCID: PMC9602920.

[16] Montanari, L.; Guarita, B. Polydrug Use among Drug Treatment Clients in Europe.

What Implications for Treatment? 1st ed.; EMCDDA: Luxembourg, 2015.

[17] Rammohan, I., Jain, S., Sun, S., Marks, C., Milloy, M., Hayashi, K., DeBeck, K., González-Zúñiga, P., Strathdee, S., & Werb, D. (2023). Latent polydrug use patterns and the provision of injection initiation assistance among people who inject drugs in three North American settings. *Drug and Alcohol Review*, 42(6), 1504–1516. <https://doi.org/10.1111/dar.13687>

[18] Degenhardt, L., Charlson, F. J., Ferrari, A. J., Santomauro, D., Erskine, H. E., Mantilla-Herrera, A., Whiteford, H., Leung, J., Naghavi, M., Griswold, M., Rehm, J., Hall, W., Sartorius, B., Scott, J. G., Vollset, S. E., Knudsen, A. K., Haro, J. M., Patton, G. C., Kopeć, J. A. & Vos, T. (2018). The global burden of disease attributable to alcohol and drug use in 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet Psychiatry*, 5(12), 987–1012. [https://doi.org/10.1016/s2215-0366\(18\)30337-7](https://doi.org/10.1016/s2215-0366(18)30337-7)