Distribution of Epidemiological Characteristics among Drug Addiction Patients Admitted to Alqana Center for Social Rehabilitation

M. Sc. Student Ali Abdul Alkhudhur Murad [1*]
Prof. Dr. Atta Ah. Mousa AL-Sarray [2*]
and Lect. Dr. Zeena Jamal Alkhazraji[3]

1 Community Health, College of Health & Medical Technology - Baghdad, Middle Technical University, Baghdad / Iraq
2 College of Health & Medical Technology - Baghdad, Middle Technical University, Baghdad / Iraq
3 Al- Mansour Medical Institute, Baghdad, Middle Technical University, Baghdad / Iraq

Corresponding author: Professor Dr. Atta Ah Mousa Al-Sarray
E-mail: attaahalsarray@gmail.com

توزيع الخصائص الوبائية بين مرضى إدمان المخدرات المقبولين في مركز القناة للتأهيل الاجتماعي

طالب الماجستير علي عبد الخضر مراد[1]
أ. د. عطا عبد الحسين موسى السراي [2]
و م. د. زينة جمال الخزرجي [3]

1 قسم صحة المجتمع ، كلية التقنيات الصحية والطبية-بغداد ، الجامعه التقنية الوسطى ، بغداد \ العراق
2 كلية التقنيات الصحية والطبية-بغداد ، الجامعه التقنية الوسطى ، بغداد \ العراق
3 معهد طبي المنصور-بغداد ، الجامعه التقنية الوسطى ، بغداد \ العراق

Abstract

Background: Drug addiction is a worldwide issue; 5.6% of the world's population aged 15 to 64 took drugs at least once in 2016. For the majority of medicines, younger individuals use them more than older people do. Drug abuse seems to be on the increase in several ASEAN (Association of Southeast Asian Nations) countries, particularly among young men aged 15 to 30. Illicit drug abuse account for around 14% of the overall health burden among young males. Younger individuals are also more prone to die from drug abuse issues. **Aim**: To assess the severity of problems related to drug addiction. in Baghdad city and to study epidemiological features of drug addiction among Patients Admitted to the Alqana Center for Social Rehabilitation. **Methods**: An analytical cross-sectional study of 300 individuals diagnosed as a drug addiction patient according to the criteria established by the "Diagnostic and Statistical Manual of Mental Disorders", Fifth Edition, text revision, often called the DSM-V-TR or DSM-5-TR. From the medical Department at Alqana Center for Social Rehabilitation in Baghdad. The research was carried out from 25/ December/2023 to 30/June/2024.**Results**: All individuals in this study are addicted to drug. The mean and a standard deviation (SD) of age 29.33±18.68. Individuals aged 20-29 year had the highest proportion to addiction, with a rate of 42.7%. Conversely, the age group with the lowest frequency, people at aged 50-59 years was 0.7%. 89.3% of the participants were male. The majority of patients had 51.7% unmarried, with only 36.0% being married and 12.3% was divorced. The main rate among drug addiction patients was 38.7% primary education. And 76.3% of the participants were free business.

The mean and standard deviation of age using drug at first time 25.2±9.0 and patient received any information about drug use 76.0% were

47.0% of drug addicted patient use drugs more than once a day, majority of them 56.3% use only one drug every time.

The answer of addicted patient according to John Hopking Addiction Questionnaire- Drug Abuse Screening Test (DAST-20) at the highly answer 99.7% for each two question as, is drinking or drug use affecting your reputation, and have you ever felt remorse after drinking or drug use, and minimum answer of addicted patient 22.7% on is your drinking or drug use jeopardizing your job or business. **Conclusions**: The majority of addicted patient was male. Young person aged 20-29 year had the highest proportion to addiction and same age used drug at first time.

Keywords: Drug addiction, Dependence, Epidemiology, Drug abuse.

المستخلص

المقدمة: يعد إدمان المخدرات مشكلة عالمية؛حيث يتعاطى 5.6% من سكان العالم الذين تتراوح أعمارهم بين 15 و64 عامًا المخدرات مرة واحدة على الأقل في عام 2016. وبالنسبة لغالبية الأدوية، يستخدمها الأفراد الأصغر سنًا أكثر من كبار السن. ويبدو أن تعاطي المخدرات في ازدياد في العديد من دول (ASEAN)رابطة دول جنوب شرق آسيا، وخاصة بين الشباب الذين تتراوح أعمارهم بين 15 إلى 30 عاما. ويمثل تعاطي المخدرات غير المشروعة نحو 14% من العبء الصحي الإجمالي بين الشباب الذكور. الأفراد الأصغر سنا هم أيضا أكثر عرضة للوفاة بسبب مشاكل تعاطي المخدرات. **الهدف**: هو تقييم مدى خطورة المشاكل المتعلقة بإدمان المخدرات. في مدينة بغداد ودراسة المظاهر الوبائية لإدمان المخدرات لدى المرضى المقبولين في مركز القناة للتأهيل الاجتماعي. **طريقة العمل**: دراسة مقطعية تحليلية لـ 300 فرد شخصوا على أنهم مرضى إدمان المخدرات وفقًا للمعايير التي وضعها "الدليل التشخيصي والإحصائي للاضطرابات العقلية"، الطبعة الخامسة، مراجعة النص، والتي تسمى غالبًا DSM-V-TR أو DSM-5 -TR.

من القسم الطبي في مركز القناة للتأهيل الاجتماعي في بغداد. نفذ البحث في الفترة من 25/ديسمبر/2023 إلى 30/يونيو/2024. **النتائج:** جميع الأفراد في هذه الدراسة مدمنون على المخدرات. المتوسط والانحراف المعياري (SD) للعمر 29.33 ± 18.68. وكان الأفراد الذين تتراوح أعمارهم بين 20–29 سنة لديهم أعلى نسبة للإدمان، بمعدل 42.7%. وعلى العكس من ذلك، كانت الفئة العمرية ذات التردد الأقل، وهي الأشخاص الذين تتراوح أعمارهم بين 50 و59 عامًا، 0.7%. 89.3% من المشاركين ذكور. كان غالبية المرضى 51.7% غير متزوجين، و36.0% فقط متزوجون و12.3% مطلقون. وكان المعدل الرئيسي بين مرضى إدمان المخدرات هو 38.7٪ في التعليم الابتدائي. و 76.3% من المشاركين كانوا من أصحاب الأعمال الحرة. المتوسط والانحراف المعياري لعمر تعاطي المخدرات لأول مرة 25.2 ± 9.0 وتلقى المريض أي معلومات عن تعاطي المخدرات 76.0% كان 47.0% من المرضى المدمنين يستخدمون المخدرات أكثر من مرة في اليوم، وأغلبهم 56.3% يستخدمون عقارًا واحدًا فقط كل يوم. وقت.إجابة المريض المدمن وفقًا لاستبيان جون هوبكنج للإدمان – اختبار فحص تعاطي المخدرات (DAST-20) بإجابة عالية 99.7% لكل سؤالين، هل يؤثر شرب الخمر أو تعاطي المخدرات على سمعتك، وهل شعرت يومًا بالندم بعد الشرب أو تعاطي المخدرات، والحد الأدنى لإجابة المريض المدمن 22.7% هو أن شرب الخمر أو تعاطي المخدرات يعرض وظيفتك أو عملك للخطر. **الاستنتاجات:** غالبية المرضى المدمنين كانوا من الذكور. الشباب الذين تتراوح أعمارهم بين 20–29 سنة لديهم أعلى نسبة للإدمان ونفس العمر يتعاطون المخدرات لأول مرة .

الكلمات المفتاحية: إدمان المخدرات، الاعتماد، علم الأوبئة، تعاطي المخدرات.

Introduction

Drug Addiction is a multifaceted condition characterized by repeated psychological and physiological dysfunction resulting from prolonged use of psychoactive substances. The phenomenon is marked by a shift in behavior from seeking the pleasurable benefits of a substance to attempting to alleviate the unpleasant symptoms of withdrawal (Koijam *et al.,* 2024).

Drug addiction is a worldwide issue; 5.6% of the world's population aged 15 to 64 took drugs at least once in 2016. For the majority of medicines, younger individuals use them more than older people do (Nations, 2018). Drug abuse seems to be on the increase in several ASEAN (Association of Southeast Asian Nations) countries, particularly among young men aged 15 to 30. The Global Burden of Disease (GBD) research published in 2013 demonstrated the growing burden of drug addiction among adolescents and young adults. Illicit drug abuse account for around 14% of the overall health burden among young males. Younger individuals are also more prone to die from drug abuse issues. (Nawi *et al.,* 2021)

Teenagers are the group of persons most susceptible to addiction. (Luikinga *et al.,* 2018). Teenagers throughout this time have a high tendency toward experimenting, curiosity, sensitivity to peer tension, disobedience against authority, and low self-esteem, all of which make them prone to drug addiction. (Degenhardt *et al.,* 2016). Adolescent drug addiction has significant health consequences, including acute intoxication, long-term health impacts, unsafe sexual behaviors, unwanted pregnancy, sexual violence, and limited key social and psychological transitions to adults roles and responsibilities. (Chen *et al.,* 2022). Addiction is a complicated neuropsychiatric condition that affects a portion of those who use drugs. It has characteristics by maladaptive drug-seeking practices that are sustained despite negative consequences and high drug desire. (Belin-Rauscent *et al.,* 2016)

According to the National Institute of Health, adolescents might start using or continue to use drugs for a number of different reasons. These include:

1) To fit in or due to peer pressure
2) To experiment and have new experiences
3) Self-medicating for mental health conditions
4) To experience the positive feelings associated with substances
5) To keep up with intense pressure to perform athletically or academically (for example, using prescription or illegal stimulants)

Drug addiction is now best defined as the outcome of a series of allostatic alterations, similar to other chronic illnesses such as diabetes, hypertension, and obesity. This is worth highlighting since allostatic changes indicate increasing stability via change, rather than just returning to the original homeostatic state (Ruisoto and Contador, 2019).

Drug addiction represents a significant public health concern that has high rates of relapse despite optimal medical therapy and rehabilitation support. (Wang *et al.,* 2018) combining treatment medications (where available) with behavioural therapy is the best way to ensure success for most patients. Treatment approaches must be tailored to address each patient's drug use patterns and drug-related medical, psychiatric, and social problems. (Volkow, 2010)

Materials & Methods

The study adopted a cross-sectional design to recruit (300) subjects diagnosed as drug addiction in the Baghdad governorate, consistent with American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-5).

Sampled data were collected during the patients' admitted to Alqana Center for Social Rehabilitation; variables included socio-demographic, clinical, and epidemiological.

The sites' exclusion criteria included patients less than 18 years old, and addicted on alcohol or other substance not drug.

Statistical analysis

The coding of the responses was done, entered into IBM SPSS-29 and data presentation and analysis conducted. The descriptive analysis used frequency, percentage, added mean standard deviation, and range which is the difference in the minimum and maximum values.

Students-t-test, Paired-t-test, or ANOVA tests were used to determine the significance of difference of means (quantitative data). The differences in categorical data were determined by Pearson Chi-square test (χ2-test) with Yate's correction or Fisher Exact test where appropriate. P values of 0.05 or less indicated statistical significance.

Ethics

The participants in this study signed informed consent form and ethical clearance was sought from the medical department at Alqana Center for Social Rehabilitation as well as the College of Health and Medical Techniques in Baghdad. The subjects' consent was sought and obtained prior to the study as per the standards recommended in the Declaration of Helsinki on use of human subjects for research in 1964.

Results

This cross-sectional study comprised 300 patients addicted to drug, with a mean and a standard deviation (SD) of age of 29.33±18.68. Individuals aged 20-29 year had the highest proportion to addiction, with a rate of

42.7%. Conversely, the age group with the lowest frequency, people at aged 50-59 years was 0.7%, 89.3% of the participants were male, while 10.7% were female. The majority of patients had 51.7% unmarried, with only 36.0% being married and 12.3% was divorced. The main rate among drug addiction patients was 38.7% primary education ,33.0% secondary education, and 16.0% was illiterate patient, while lowest patient 12.3% at collage. According to the statistics in the table,76.3% of the participants were free business, while 14.3% unemployed, and minimal 9.3% employed. As illustrated in Table (1)

Table 1: Distribution of demographic characteristic among drug addiction patients

Demographic characteristic		No	%
Age (years)	≤20	38	12.7
	20-29	128	42.7
	30-39	94	31.3
	40-49	33	11
	50-59	2	0.7
	≥60	5	1.7
	Mean ± SD (Range)	29.33±8.74 (18-68)	
Sex	Male	268	89.3
	Female	32	10.7
Educational level	Illiterate	48	16
	Primary	116	38.7
	Secondary	99	33
	College	37	12.3
Current marital status	Married	108	36
	Unmarried	155	51.7
	Divorced	37	12.3
Occupation	Employed	28	9.3
	Unemployed	43	14.3
	Free Business	229	76.3

In Table (2) the mean and standard deviation of age using drug at first time was 25.2±9.0 and patient received any information about drug use was 76.0%. Furthermore, 47.0% of drug addicted patient use drugs more than once a day, majority of them 56.3% use only one drug every time. And 93.3% from patients were addicted to drug just before admitted and majority of them (52.0%) take drug at home.

Table (2) Epidemiological characteristic of the drug addiction patient.

Epidemiological characteristic		No	%
age using drug at first time	<20	103	34.3
	21-29	119	39.7
	30-39	52	17.3
	40-49	21	7
	50-59	3	1.0
	>=60	2	0.7
	Mean ± SD (Range)	25.2±9.0 (9-61)	
How often do you use drugs	Once a day	124	41.3
	More than once a day	141	47
	Once a week	26	8.7
	Several times a week	6	2
	Other	2	0.7
	monthly	1	0.3
How much drug do you use every time?	1	169	56.3
	2	127	42.3
	3	4	1.3
In what occasions do you use drugs	Before exams	3	1
	in friend home	134	44.7
	At home	156	52
	at work	7	2.3

Table (3) represent the answer of addicted patient according to John Hopking Addiction Questionnaire- Drug Abuse Screening Test (DAST-20) at the highly answer 99.7% for each two question as, is drinking or drug use affecting your reputation, and have you ever felt remorse after drinking or drug use, while 97.7% do you crave a drink or a drug at a definite time daily, 95.3% has your ambition decreased since drinking or using drugs, 95.0% has your ambition decreased since drinking or using drugs, 90.3% do you lose time from work due to drinking or drug use, 83.7% do you drink or use drugs to build your self-confidence, 77.7% do you drink or use drugs alone, 75.0% is drinking or drug use making your home life unhappy, 60.7% do you want a drink or drug the next morning, 60.0% does your drinking or drug use cause you to have difficulties in sleeping, 59.3% does your drinking or drug use make you careless of your family's welfare, 49.0% do you drink or use drugs because you are shy with other people, 45.0% has your physician ever treated you for drinking or drug use, 43.0% has your efficiency decreased since drinking or using drugs, 34.3% have you gotten into financial difficulties as a result of your drinking or drug use, 31.3% do you turn to lower companions and an inferior environment when drinking or using drugs, 27.3% have you ever been in a hospital or institution on account of drinking or drug use (second addition for addiction cause), 25.0% have you ever had a complete loss of memory, and minimum answer of addicted patient 22.7% on is your drinking or drug use jeopardizing your job or business.

According to John Hopking Addiction Questionnaire - Drug Abuse Screening Test (DAST-20) Mean ± SD (Range) 12.72±2.2 (5-18), at highly answered 73.3% Substantial/Intensive, while minimum answered 0.7% Low / Brief Counseling, and 0.0% None/ Monitor.

Table (3): Drug Abuse Screening Test (DAST-20).

Drug Abuse Screening Test (DAST-20)		No.	%
Lose time from work due to drinking or drug use		271	90.3
Drinking or drug use making your home life unhappy		225	75.0
Drink or use drugs because he/she is shy with other people		147	49.0
Is drinking or drug use affecting reputation		299	99.7
Have ever felt remorse after drinking or drug use		299	99.7
Have gotten into financial difficulties as a result of drinking or drug use		103	34.3
Turn to lower companions and an inferior environment when drinking or using drugs		94	31.3
Drinking or drug use make you careless of family's welfare		178	59.3
Has ambition decreased since drinking or using drugs		286	95.3
Crave a drink or a drug at a definite time daily		293	97.7
Want a drink or drug the next morning		182	60.7
Drinking or drug use cause him/her to have difficulties in sleeping		180	60.0
Has efficiency decreased since drinking or using drugs		129	43.0
Drinking or drug use jeopardizing job or business		68	22.7
Drink or use drugs to escape from worries or troubles		285	95.0
Drink or use drugs alone		233	77.7
Have ever had a complete loss of memory		75	25.0
Has physician ever treated you for drinking or drug use		135	45.0
Drink or use drugs to build your self-confidence		251	83.7
Have ever been in a hospital or institution on account of drinking or drug use		82	27.3
DAST 20 score	None	-	-
	Low (1-5)	2	0.7
	Intermediate (6-10)	45	15.0
	Substantial (11-15)	220	73.3
	Sever (16-20)	33	11.0
	Mean±SD (Range)	12.7±2.2 (5-18)	

Discussion

Many individuals were in the third decade of their life with mean age and standard division was (29.3±8.7). This result is agreed with several studies carried out in different countries including; (Sahar, 2019) in Iraq were 36.94 ±11.93 years; (Mohamed *et al.,* 2020) in Egypt was 28.1 ± 6.5 year among addicted patient; (Farook *et al.,* 2022) in Afghanistan was 30.7 ± 11.4 years.

Other studies that disagree with this study include; (Chen *et al.,* 2022) that conducted in Taiwan was 17.25 ± 1.33 years.

Male patients were (89.3 %) of studied sample while Females only (10.7%) of included patients with a ratio 8.4:1. This study showed a high male to female ratio and these results were confirmed with other studies; (Sahar, 2019) in Iraq were (88.0%) male and (12.0%) female; (Abdelrehim *et al.,* 2022) in Egypt was (96.7%) male and (3.3%) female. While in other study (Ma *et al.,* 2022) in China the result disagree with sex in this study were the male (70.3%) and female was (29.7%); (Chen *et al.,* 2022) In Taiwan were (71.7 %) male and (28.3%) female. Unlike their male counterparts, females may experience more difficulties in trying to acquire drugs in an Islamic society, because of restrictions on female socializations. (Al-Kandari *et al.,* 2007)

The majority of study sample were reported to have primary education (38.7%), while secondary (33.0%), illiterate (16.0%) and only (12.3%) had college or higher degree. The present findings also support (Abdelrehim *et al.,* 2022) in Egypt were primary education (29.3%), illiterate (14.0%) and only (13.3%) had college or higher degree. While the same study secondary education (43.3%) is disagreed to this study.

In terms of marital status, were (36.0%) married, while (51.7%) single, and 17 cases (12.3%) divorced. These findings were consistent with the

findings of a past study in Iran (Pourallahvirdi *et al.,* 2016) was (36.4%) married, (58.7%) single, and (3.2%) divorced; (Abdelrehim *et al.,* 2022) in Egypt were (40.0%) married, (51.3%) single, and (8.0%) divorced;(Ma *et al.,* 2022) in China were married (29.7%), single or divorce (70.3%); (Ibrahim *et al.,* 2018) in Saudi Arabia were married (35.0%), single (54.9%), and divorced (9.5%). And also disagree by study (Farook *et al.,* 2022) in Afghanistan were (50.6%) were married, (34.3%) were single; (Chaman *et al.,* 2020) in Iran were (77.5%) were married, (22.5%) were single.

The majority of study sample were reported to have free business (76.3%), while unemployed (14.3%), and only (9.3%) was employed. This agree with what had been reports in study done in Iran (Pourallahvirdi *et al.,* 2016) was (5.5%) had employed, (67.8%) were free business.

The mean and (SD) of age using drugs for the first time in this study was 25.2 ± 9.0 at percentage was 0.7% is below 10 years, 29.3% (10-19), 44.7% (20-29), 17.0% (30-39), 6.7% (40-49), and ≥ 50 years was 1.7%. These findings were consistent with the findings of a past studies including; (Abazid *et al.,* 2020) in Syria were the mean and (SD) was 21.4 ± 5.3; (Goyal *et al.,* 2022) in India were the mean and (SD) was 19.7 ± 6.66; (Farhat *et al.,* 2015) in India also were the mean and (SD) was 25.5 ± 7.6

This result is disagreed with other study like (Rather *et al.,* 2013) in India were (10.1%) in age group below 10 years, while (76.8%) in age group (11-20) years, and (13.1%) in age group (21-30);

Regarding to times of using drug in this study was (47.0%) more than once time/day, (41.0%) only one time/day, (8.7%) once time/week, (2.0%) more than once time/week, and (1.0%) only once time/month. This result is conformed with other study (Al-Kandari *et al.,* 2007) in Kuwait were (80.9%)

was daily use drugs, while (12.0%) 1–6 days/week, and (6.8%) few days/ month. The number of drugs taken by the addicted patient in this study was maximum (56.3%) only one drug, while (42.3%) two drugs at same time, and (1.3%) three or more drug. This finding is conformed with other study (Batool *et al.,* 2017) in Pakistan, were the percentage of patient using single drug was (53.8%) while others using multiple drugs was (46.2%).The DAST-20 score is a measure of drug dependence severity; the mean score and (SD) was 12.7±2.2 in this study, and highest proportion at "substantial" was (73.3%), while (15.0%) "intermediate", (11.0%) "sever", and (0.7%) "low" severity categories. This finding is conformed with study result (Harada *et al.,* 2023) conducting in Philippines were mean and standard division of DAST-20 Score was (10.1± 4.1)

Conclusions

The majority of addicted patient was male. the main symptoms were poor performance and/or attendance at work or school and mood swing. The highly complication was fatigue. Regarding the way of addiction, the tablets is vast majority and enjoyment is the most common cause of addiction.

Limitations

There are some limits that stand out. Even though the study only looked at one center, the sample size is about the smiler as in a number of other studies.

Recommendations

It's possible that other important differences between the factors seen in this study would become clearer if multicenter study, the sample size was larger and the duration of the addiction study had been longer.

Acknowledgment

Our deepest appreciation goes out to everyone who helped in this study, from the patients to the faculty and personnel at Alqana Center for Social Rehabilitation.

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