

# Psychiatric and Socio Demographical Profile of Substance Abuse Offenders, In Al-Rashad Training Hospital, Forensic Department, Iraq

Basheer F. Humadi<sup>1</sup>, Ghada K. Adeeb<sup>2</sup>, Ali H. Alamery<sup>3</sup>

<sup>1-3</sup>Forensic Department, Al-Rashad Training Hospital, Baghdad, Iraq

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## ABSTRACT

**Background:** Substance use disorder and mental illness are a major burden within the criminal justice system and within the general health services. It is difficult to study this relationship outside of prisoners' populations, as both mental disorders and severe drug dependence are risk factors for violent actions and crimes.

**Aim:** To detect the substance abuse offenders and assess the psychiatric illnesses among them and to study the socio-demographical characteristic of the selected sample.

**Materials and Methods:** The study was conducted in AL Rashad Hospital, Forensic Department in Baghdad. It is a descriptive retrospective study. Case files of (40) offenders with different charges concerning substance crimes, examined by the forensic committee in 2017 were studied. Comprehensive data were collected and analyzed by the SPSS 23.

**Results:** The study showed that offenders with Substance use disorder (SUD) mainly of the young age groups (20–29) and (30–39) were married with unstable financial resources, illiterate, and related to urban regions. The personality disorder had significant comorbidity with SUD, the use of the CNS stimulant group and multiple substance abuse was the bulk of the problem. The past psychiatric history was positive 75% of the sample, while the forensic psychiatric history was positive in 25% only. Najaf, Baghdad, and Basra were the most affected governorates.

**Conclusions:** The result of this study doesn't represent the SUD problem in Iraq; the problem may be bigger than this, and substance abuse-related crimes are increasing rapidly. The study only describes some of the psychiatric and socio-demographical characteristics of substance abuse offenders who were sent by the court for diagnosing and assessing the culpability by the Forensic committee.

**Keywords:** Comorbidity, Forensic psychiatric committee, Mental illness, Substance Use Disorder (SUD).

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## INTRODUCTION

SUD started to become a serious public health issue with dramatic consequences in Iraq and worldwide, the nature and extent of drug and alcohol problems in society is critically important information since these problems substantially impact the health, criminal justice, and social service systems.<sup>1</sup>

During the past decade, a number of reports have documented an increase in the prevalence of SUD issues in Iraq.<sup>2</sup> However, there is considerable uncertainty about the extent of drug and/or alcohol abuse, what drugs are being abused, what groups are using them and which geographic regions have elevated levels of this problem in Iraq.

The distribution and usage of substance in an illegal way and without medical prescription could end with medico-legal consequences, and it's punishable by the Iraqi law.<sup>3</sup>

Psychologists, sociologists, criminologists, and physicians have attributed drug abuse to almost any imaginable reason—

the individual's attempt to cope with personal and social problems, peer conflicts, identification with celebrities who use drugs, the list is never-ending as experts point to factors external to the individual user.<sup>4</sup>

To make it short, causes could be

- availability of drugs
- a vulnerable personality
- an adverse social environment
- pharmacological factors.<sup>5</sup>

It's approved that the coexistence of both SUD and severe mental illnesses are a strong predictor of violence and crimes.<sup>6</sup>

The usually patient with SUD may present with complains of mood problems, anxiety, personality disorders, or symptoms of another psychiatric disorder.<sup>7</sup>

The forensic committee in Al-Rashad forensic department provides the opportunity to study the comorbidity between substance use and the psychiatric disorders more closely.

\* Author for Correspondence: salwan\_ali2000@yahoo.com

The duty of the committee was the assessment of offenders, management of those with mental illness, detect their criminal responsibility and fitness to stand trial and plead.

### **What is Substance Use Disorder?**

This diagnosis was specifically designed to allow doctors to simultaneously address both addictive and non-addictive dysfunctional substance use in clients. This replaces the DSM-4, the diagnostic manual previously used by the American Psychiatric Association (APA), which treated addiction and clinically significant abuse as separate distinct issues (DSM-5).<sup>8</sup>

The World Health Organization (WHO) defines dual diagnosis as the co-occurrence in the same individual of a psycho active substance use disorder and another psychiatric disorder,<sup>9</sup> and when two disorders or illnesses occur in the same person, simultaneously or sequentially, they are described as comorbid.

Comorbidity also implies interactions between the illnesses that affect the course and prognosis of both.<sup>10</sup>

SUD is commonly found in conjunction with other psychiatric disorders, and sometimes appears to be secondary to them. e.g., some patients with depressive disorders, those with anxiety disorders, particularly panic disorder and social phobia, are also at risk and is also seen in patients with bipolar disorder and schizophrenia.<sup>6</sup>

It's also common in people with personality disorder, especially in those with cluster B type personality disorder in particular, antisocial and borderline personality disorder.<sup>11</sup>

Such dual disorders are a matter of great concern because of their serious consequences for the patients, their families, health services, and society.<sup>12</sup>

The mechanisms underlying this comorbidity are not established, but overlapping genetic predispositions are a possibility,<sup>13</sup> perhaps associated with shared abnormalities in the functioning of reward pathways.<sup>14</sup>

### **Pathways to comorbidities**

- The substance use disorder and another mental health disorder may represent two or more independent conditions (combination may occur through chance)
- The psychiatric disorder other than substance use disorder is a risk factor for drug use and the development of a comorbid substance use disorder
- The substance use disorder could trigger the development of psychiatric disorder in such a way that the additional disorder then run an independent course.
- The temporary psychiatric disorder is produced as consequence of intoxication with or withdrawal from a specific type of substance, also called a substance-induced disorder.

We need to know that self-medication is a common behavior among people who underwent stressful events and those with PTSD in the community, yet has potentially hazardous consequences. Health care practitioners should assess reasons for substance use among them to identify a subgroup with higher psychiatric morbidity.<sup>15</sup>

Now, attention has been directed to the complicated issue of diagnostic problems in patients with multiple disorders. It is extremely important to identify any independent psychiatric comorbidity in SUD patients and any comorbid SUDs in patients with mental disorders. Comorbidity seems to be the rule more often than the exception.<sup>14</sup>

Those offenders usually show a higher risk of recidivism and relapse, compared with offenders who have only one type of disorder.<sup>16</sup>

In addition to the established relationship between SUD and re-offending, recent research suggests that substance abuse within mentally disordered forensic patients should be considered an important risk factor for violence and crime.<sup>17</sup>

In Iraq, years of war, conflict and embargo and lastly the invasion of isis and its consequences affect the prevalence of mental health issues, and have also disrupted the progress of mental health care development.

Many factors lead us to believe that mental disorders are common in the Iraqi population e.g. poverty, the increase in mortality rate, refugees, many Iraqis continue to live in a climate of fear of violence and disruptions of daily activities that could have adverse effects on their mental health.<sup>18</sup>

World Health Organization with the Government of Iraq has once again begun to direct the much-needed attention to this important health and social component,<sup>19</sup> the previous stressful circumstances cause an unhealthy environment helping to induce and provoke substance abuse which is a big challenge, and in an effort to better understand the magnitude of this problem in Iraq, the Iraq Ministry of Health, with financial support from the U.S. Substance Abuse and Mental Health Services Administration (SAMHSA), collaborated with substance use researchers from the United States to develop the Iraqi Community Epidemiology Work Group (Iraqi-CEWG) in 2015 a national drug and alcohol use surveillance program that oversees the trends and magnitude of substance use in the country in order to help direct policy on substance use control.<sup>1</sup> The results show that males use tobacco, alcohol and drugs at much higher rates than females and rates of alcohol and drug use are higher in the Northern and Southern regions of Iraq. Reasons for substance use in Iraq are that drugs and alcohol allow people to forget their problems, reduce depression, reduce anxiety and allow them to socialize with friends.<sup>1</sup>

A tendency for early age of onset in alcohol and drugs was observed. High household density and low educational level are important factors in alcohol and drug abuse.<sup>2</sup>

According to the previous facts regarding the increase in prevalence of mental illness in Iraq and the rapid rate of distribution of SUD, we need to study this problem deeply trying to decrease its effect on the Iraqi population.

The sample of this study had special and unique characteristics because we study offenders immediately after being convicted by court and before being imprisoned for long time so they represent an intermediate sample between general population and the prisoner's population.

Several behavioral therapies have shown promise for treating comorbid conditions. These approaches can be tailored to patients according to age, specific drug abused, and other factors, effective medications exist for treating alcohol and other substance abuse and help to alleviate the symptoms of other comorbid mental disorder.<sup>20</sup>

Improved treatment for substance abuse in forensic psychiatric patients could therefore be usefully considered as a means of reducing and managing risk. This may improve patient care by addressing mental health needs and increasing the opportunity and likelihood of successful re-integration into the community and better life prospects; protect the public by reducing risk of re-offending and help forensic psychiatrists finding a balance between patient care and public protection.<sup>17</sup> The aim of this study is to detect the substance abuse offenders and assess the psychiatric illnesses among them and to study the socio-demographical characteristic of the selected sample.

**MATERIALS AND METHODS**

This study was conducted in the psychiatric forensic department in AL-Rashad Hospital in Baghdad, which is the only forensic psychiatric in Iraq. It was a descriptive retrospective study,<sup>40</sup> case files of substance abuse offenders who were examined by the forensic psychiatric committee in 2017 were studied, the committee is usually joined twice weekly. Comprehensive data was collected about offenders of substance abuse/dependence

**Table 1:** Socio demographical data of the studied sample

<i>Variables</i>	<i>Frequency</i>	<i>%</i>
<b>Age</b>		
<19	3	7.5
29-20	14	35.0
30-39	14	35.0
40-49	5	12.5
>50	4	10.0
Total	40	100.0
<b>Marital status</b>		
Single	13	32.5
Married	24	60.0
Divorce	3	7.5
Total	40	100.0
<b>Employment</b>		
Employed	3	7.5
Unemployed	15	37.5
Earnar	19	47.5
Military	3	7.5
Total	40	100.0
<b>Residency</b>		
Urban	28	70.0
rural	12	30.0
Total	40	100.0
<b>Educational level</b>		
Illiterate	17	42.5
Primary	11	27.5
Secondary	10	25.0
Academic	2	5.0
Total	40	100.0

and there comorbid mental disorders. The courts asked the forensic psychiatrists to evaluate the psychiatric disorder, the criminal responsibility and the need for mandatory treatment of the offenders. However, this decision will not be approved until the court which refer these offenders agree. Aassessments in the forensic psychiatric committee at AL-Rashad Hospital is a duty of a team of three board certified psychiatrists, who perform psychiatric diagnostic interviews, mental and physical examinations, psychological assessments, routine laboratory workups, and sometimes, brain-imaging studies. The diagnosis was made according to clinical examination and according to DSM-5 criteria.

**Data analysis**

The data were analyzed using SPSS, version 23.

**Tables & Results**

Tables below describe the demographical data of the studied sample:

To the best of our knowledge, this study of substance abuse offenders and substance related crimes is the first one conducted in Iraq. In reviewing the results of this study we found that adults in their 3<sup>rd</sup> and 4<sup>th</sup> decade of life (20–29) and (30–39) were mostly affected with this disorder (35 and 35%) of the studied sample, while the teenagers and old age groups are less affected, this most probably due to late and poor detection of the cases among teenagers in our society. The abusers in their 2<sup>nd</sup> and 3<sup>rd</sup> decade are discovered when they get involved in some conflicts with authorities. The rate then start to subside with old offenders (>40 ), most probably

**Table 2:** Clinical features of the studied sample.

		<i>Frequency</i>	<i>%</i>
Comorbid mental illnesses	Depression	4	10.0
	Anxiety	3	7.5
	Personality disorder	23	57.5
	Psychosis	2	5.0
	Organic	1	2.5
	No mental illness	5	12.5
	Multi-diagnosis	2	5.0
Total		40	100.0
Type of Substance	CNS Stimulants	16	40.0
	Anticholinergic	6	15.0
	Anxiolytic	1	2.5
	Alcohol	2	5.0
	Opioids	2	5.0
	Multi-substance abuse	13	32.5
	Total	40	100.0
Past Forensic history	Positive	10	25.0
	Negative	30	75.0
Past Psychiatric History	Depression	3	7.5
	Anxiety	7	17.5
	Personality disorder	5	12.5
	psychosis	5	12.5
	Organic	5	12.5
No mental illness		10	25.0
Multi diagnosis		5	12.5
Total		40	100.0

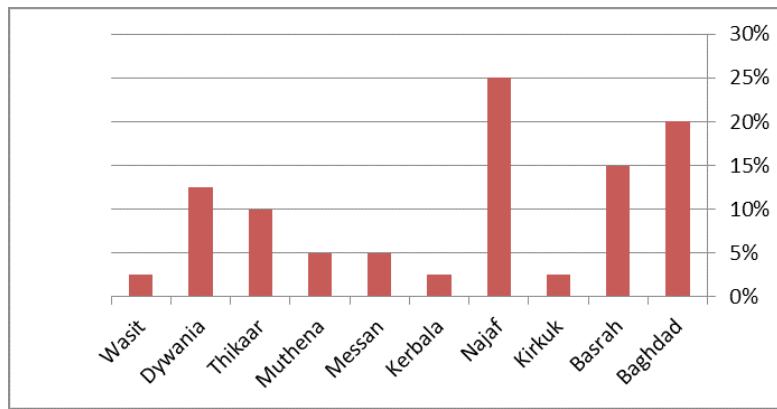


Figure 1: Geographical distribution of the substance use offenders.

Table 3: Relation between type of substances and the demographical data

		Stimulants	Anti-cholinergic	Anxiolytic	Alcohol	Opioids	Multi-substance	Total	P-value
Age	<19	1	1	1	0	0	0	3	0.161
	20-29	9	0	0	1	1	3	14	
	30-39	2	3	0	1	1	7	14	
	40-49	3	1	0	0	0	1	5	
	>50	1	1	0	0	0	2	4	
Marital status	single	7	3	1	0	1	1	13	0.080
	married	9	3	0	2	0	10	24	
	divorce	0	0	0	0	1	2	3	
Employment	Employed	1	1	0	0	0	1	3	0.971
	Unemployd	7	2	0	1	0	5	15	
	Earnar	7	3	1	1	2	5	19	
	military	1	0	0	0	0	2	3	
Residency	urban	11	6	1	2	1	7	28	0.320
	rural	5	0	0	0	1	6	12	
Educational level	Illiterate	7	1	0	1	1	7	17	0.758
	Primary	6	2	0	1	0	2	11	
	Secondary	2	3	1	0	1	3	10	
	Academic	1	0	0	0	0	1	2	

Table 4: Relationship of the mental illness with the type of substances mostly abused :

Mental illness	Type of Substance						Total	P-value
	Stimulants	Anticholinergic	Anxiolytic	Alcohol	Opioids	Multi-substance		
Depression	4	0	0	0	0	0	4	0.000
Anxiety	1	1	0	0	0	1	3	
Personality disorder	5	4	0	2	0	12	23	
Psychosis	0	1	0	0	1	0	2	
Organic	1	0	0	0	0	0	1	
No mental illness	5	0	0	0	0	0	5	
Multi diagnosis	0	0	1	0	1	0	2	
Total	16	6	1	2	2	13	40	

because of the interference of the society and exposing them to health services and even to punishment according to law.

The marital status had significant relation with the problem because 60% of the affected sample found to be married, burden of financial and social responsibilities on those offenders and the effect of unsecure and unstable life style could explain this, and it became obvious if we noticed that those unemployed and earners (unstable daily income) are the main part of the sample.

Living in urban regions is of significant effect, 70% of the offenders this could be explained by different causes; First, the availability of drugs, whether by dealers or the presence of big hospitals in the centers of the big cities which sometimes could be the source of addictive drugs. Second, the complicated and unsecure circumstances in the big cities particularly when these cities act as pathway of substances to nearby neighbor countries through the borders and airports, that's why Najaf came first between the 10 examined governorates in number

of offenders 25% followed by Baghdad 20% and Basra 15%.

The level of education reversely affect the problem, it was higher among illiterates 42.5% of the sample and the rate decrease gradually in offenders with higher levels of education 27.5% in primary, 25% in secondary education, while those with academic achievements show the less rate 5%. Mostly because they can comprehend the harm effects and consequences of the substance abuse.

The study found significant comorbidity of personality disorder (57.5%) with the substance abuse problem because of their trends to indulge in exploring all the drugs that brings relief and satisfaction to them, much less rates of comorbidity for all other mental illnesses as mention in other studies and texts.<sup>21,22</sup>

The study revealed that most of the sample 40% mainly abuse stimulant substances which they discover their relieving effect coincidentally or as a part of treatment of their mental problem e.g. depressive disorder. while 32% abusing multiple substances mostly because of their needs to get the maximum satisfaction so they started to try another substance once the effect of the previous one started to vanish. While the rest of the sample (15% for anticholinergic substances, 5% for opioid and 2.5% for anxiolytic) were misusing their medical prescriptions given by their doctors.

Only 5% of the sample found to be abusing alcohol, which was not significant. In Iraq as a Muslim country the clear forbiddance order in the Holly Quran concerning the alcohol ingestion decrease the rate of use, while this order is not that clear regarding other abusive substance In addition to that, Iraqi law doesn't convict alcoholics until they break it.

Offender with no forensic history consisted 75% of the sample this may be related to poor security circumstances which lead to disruption of society rules in convicting such offenders. The good news is that these circumstances start to improve currently

The offenders with no past psychiatric history consisted 25% while the rest 75% were treated before as mentally ill which may explain their affinity to anticholinergic, anxiolytic and coincidently to opioids.

The relationship between types of the abused substances and the socio demographical data show no significant P-value, but the abuse of stimulants and the multiple drugs has higher rate of occurrence than other abusive drugs.

This study show significant p-value (0.00) for the personality disorder as a comorbidity among drug abusers. They show strong affinity to abuse multiple drugs, stimulants and anticholinergic, simply could be explained by their well-known pattern of maladaptive, reckless and impulsive immature behavior and because of the continuous feeling of frustration as a results of environmental conflicts. The rest of the samples who suffer mental illnesses experience the abuse of CNS stimulant (amphetamines) mainly for their performance enhancing and pleasurable effect.

## CONCLUSION

The problem of Substance Abuse in the studied sample appeared to be obvious among young age groups, who were married with unstable financial resources, illiterate and related to urban regions. The personality disorder had significant comorbidity with SUD, the use of the CNS stimulant group and multiple substance abuse was the bulk of the problem. Three quarters of the sample had past psychiatric history, while the forensic psychiatric history was not that effective. The Geographical distributions of the problem explore that Najaf City the famous IRAQI governorate with religious tourism, the Capital Baghdad City and Basra which is the only IRAQI which is naval exit to the sea were the most affected with abusing problem.

## Recommendation

- Level of alarm must be raised by the government and its responsible agencies to prevent abusing such substances and drugs.
- Supporting training programs of the medical staff in Primary Health Care Services for early detection of SUD in high risk groups.
- High level of attention must be focused by the media to educate the population specially the youth and their families about the dangerousness and medico-legal consequences of substance abuse.
- More studies are needed to investigate the relationship between substance abuse and crimes in Iraq, especially in terms of the practical relevance of the substance abuse treatment programs.
- Improving communication procedure between mental health services and the legal system to facilitate managing offenders of substances related crimes.

## Limitations

- The sample doesn't represent the Iraqi population, its unique sample with its own characteristics.
- No female sample was found to be studied.
- No similar local study could be found to compare with.

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