

## FACTORS ASSOCIATED WITH RELAPSE AMONG DRUG-DEPENDENTS IN IBIN RUSHED HOSPITAL IN BAGHDAD 2006<sup>+</sup>

العوامل المرتبطة بالعودة الى الاعتماد الدوائي بعد النقاهاة بين المعتمدين على الادوية في مستشفى

ابن رشد في بغداد لعام ٢٠٠٦

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### Abstract :

The health importance of drug use and dependence is growing from year to year, as it is not a health problem only; it is a formidable moral, social and economic problem.

The central point in treatment of drug dependence is relapse ( returning back to take the drug after treatment).The aim of this study is to throw some light on the socio demographic characters of the drug dependents and the factors associated with relapse of drug dependence.

During the period from 1<sup>st</sup> January\_31 December 2006, 67 admitted male drug dependents were diagnosed by psychiatrists in Ibin rushed Psychiatric Hospital in Baghdad with age ranging between 10 years and >50 years . Socio demographic characters and factors associated with relapse were investigated by interviewing with patients or their family and by reviewing their records.

It was found that 34% of drug dependents were admitted to the hospital for the first time and 66% (44 of 67) had relaps (admitted more than once).54% of them were 20-29 years old, 45% were secondary school educated, 76% were un employed, 54%were married, 60%of them was using the drugs for more than3 years and 43.3% were depend on sedative and hypnotic drugs. The factors associated with relapse were social problems 91%, peer pressure 52. %. Un employment 39%, family problems 7.5% and duration of using the drug p 0.001 .

### **Conclusion:**

The characters of the study sample are: young age patients, secondary school educated, married, Un employed. Most of them depend on sedative and hypnotics.

The main factor that associated with relapse of drug dependence is social problems.

Recommendation ;Strict legal control on marketing of the drugs and more public awareness to drug abuse. More studies are needed to know the factors leading to initiation and continuationof drug use and relaps.

Key words; drug dependence, relaps.

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## المستخلص

ان الاهمية الصحية لاستخدام الادوية والاعتماد عليها بدأت تزداد من عام لآخر وذلك لانها ليست مشكلة صحية فقط ،بل انها مشكلة اخلاقية و اجتماعية واقتصادية هائلة .النقطة الاساسية في علاج الاعتماد الدوائي هي الانتكاسة( العودة لاستخدام الدواء بعد النقاهاة).الهدف من هذه الدراسة هو القاء بعض الضوء على الصفات الديموغرافية الاجتماعية للمعتمدين على الادوية وعلى العوامل المرتبطة بالعودة للاعتماد بعد النقاهاة.خلال الفترة من ١ من كانون الثاني الى ٣١ كانون الاول لعام ٢٠٠٦، تم تشخيص سبع وستون معتمد على الدواء الراقدين في مستشفى ابن رشد النفسي في بغداد وكانت اعمارهم تتراوح بين ١٠ الى اكثر من ٥٠ عاما .تم استقصاء المعلومات الديموغرافية الاجتماعية والعوامل المرتبطة بالرجوع للاعتماد الدوائي بعد النقاهاة ، بواسطة المقابلة الشخصية مع المرضى او عوائلهم وبمراجعة تقاريرهم الطبية و لقد وجد من خلال البحث ان ٣٤% من المعتمدين على الادوية قد ادخلوا للمستشفى للمرة الاولى و٦٦% ادخلوا للمستشفى لاكثر من مرة . ٥٤% اعمارهم تتراوح بين ٢٠ - ٢٩ سنة . ٤٥% منهم تحصيلهم الدراسي الثانوية و٧٦% منهم ليس لديهم عمل، ٥٤% متزوجون، ٦٠% كانت مدة تعاطيهم الدوائي اكثر من ٣ سنوات ٤٣% منهم مدمنين على الادوية المهدنة والمنومة. وأوضحت الدراسة ان العوامل المرتبطة بالاعتماد الدوائي بعد النقاهاة هي المشاكل الاجتماعية ٩١% وضغط الإقران ٥٢% البطالة ٣٩% والضغط العائلي ٧% ومدة تعاطي الدواء.

الاستنتاج: لقد وجد من خلال البحث بان صفات المعتمدين هي:

المرضى في عمر الشباب ،حاصلين على الشهادة الثانوية، متزوجين وليس لديهم عمل،مدمنين على الادوية المهدنة المنومة و اهم عامل مرتبط بالعودة الى الاعتماد الدوائي بعد النقاهاة هو المشاكل الاجتماعية  
التوصيات: السيطرة القانونية الصارمة على تسويق الادوية.زيادة الوعي الجماهيري لمشكلة سوء استخدام الدواء وبالحاجة لبحوث اخرى لمعرفة العوامل المؤدية لاستخدام الادوية والاستمرار عليها والانتكاسة بعد العلاج  
الكلمات المفتاحية: الاعتماد الدوائي، الانتكاسة

## Introduction:

According to the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) issued by the American Psychiatric Association the definition of drug dependence is as follows;

It is a maladaptive pattern of substance use, leading to clinically significant impairment or Distress, as manifested by three (or more) of the following criteria, occurring at anytime in the same 12-month period.; as Tolerance, as defined as: need for markedly increased amounts of the substance to achieve desired effect. Withdrawal symptoms (after reduction in the amount of the drug, many symptoms appear on the patient like sweating, hand tremor, insomnia, nausea, vomiting, increase pulse rate. The substance is often taken in larger amounts or over a longer period than was intended. There is a persistent desire or unsuccessful efforts to cut down or control substance use and a great deal of time is spent in activities necessary to obtain the substance, [1, 2]

Important social, occupational, or recreational activities are given up or reduced because of substance use the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.

Throughout the history people have used different substances to alter their state of mind.

The type of the drug is an important factor that is associated with dependency and relapse. [3, 4] .Psychoactive substances which cause dependency are Stimulant like Amphetamin, Cocaine and nicotine Sedatives and hypnotics like :Alcohol, Benzodiazepines , Opiate like codeine Semi-synthetic opiates such as heroin synthetic opioids such as fentanyl [2]. There is considerable variability between drug classes in terms of physical and psychological effects, mechanisms of action, development of tolerance and withdrawal, and long-term effects. [3, 4]

According to estimates of the United Nations Office on Drugs and Crime (UNODC), 2005, about 200 million people use one type of illicit substance. Cannabis is the most common illicit substance used followed by amphetamines, cocaine and opioids. Illicit substance use is a predominantly male activity. Substance use is also more prevalent among young people than in older age groups. 2.7% of the total global population and 3.9% of people 15 years and above had used cannabis at least once. [5]

In USA 14.1% of the population ( age 12 years and older) reported using an illicit drug and about 55% of the population age 18-25 years reported using more than one illicit drug. [6]

Although rates of use of drugs were similar in Australia and USA, rates of drug dependence and the probability of dependence were higher in Australia than in the U.S.A. This is due to the cultural and structural factors influencing drug use and dependence probability in these countries . [7]

In 2003–2004, the Regional Office of the medetrian Region undertook a situation analysis of the substance use and dependence in countries of the medetrian Region. A detailed questionnaire on aspects of substance use and dependence was sent to all countries, in the region (Afghanistan, Bahrain, Djibouti, Egypt, Islamic Republic of Iran, Jordan, Lebanon, Libyan Arab Jamahiriya, Morocco, Oman, Pakistan, Palestine, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, United Arab Emirates and Yemen). the results shows that the estimated age of initiating substance use by youth is around 15–18 years in most countries. The average age of persons with substance dependence is 20-30 years . Tranquilizers was the the most common illicit substance used followed by Cannabis followed by amphetamines, cocaine and opioids. [8]

*Khat* use is prevalent in three countries of the Region, namely Djibouti, Somalia and Yemen. It is estimated that in these countries, about 60%–80% of the adults consume *khat* on a daily basis. [9]

Risk factors for drug abuse dependence, and relaps.

There are both environmental risk factors and individual risk factors,

The Envirmental factors include social factors like, Cultural norms, attitudes and views about drug use (e.g. social acceptability of using the drug like alcohol), the availability, cost, legality, and local, national or regional policies on illicit drugs, marketing, stigma of using the drugs ,these factors affect the intiation of using the drug, which substances are used, and the development of dependence and relapse .

Stress has long been recognized as a major contributor for drug dependence. Stress caused by many social problems like( ,poverty, deprivation of social support and social Integration, insecurity, social changes, mobility from rural to urban area),social problems play great role in drug abuse ,dependence and relapse. The other factor is peer pressure (the friends who offered the drugs), especially among secondary school students, and adolescences. [7,8]

. Another Risk factors for drug abuse, dependence and relapse is family problems like family disruption and dependence problems in the family. [10]

The individual risk factors include genetic disposition, child abuse, personality disorders, mental disorders like depression and schizophrenia. [7,8]

Also It has been shown in several studies that long-term exposure to drugs can produce long-lasting cognitive impairment, which may be due to residue drug in the brain, withdrawal reaction or direct neurotoxicity of drugs so the age of onset of drug use as well as the duration

of using the drug play important role in drug dependence and relapse . So it becomes so difficult to treat the patients and to prevent relapse which is central point of treatment of drug dependence. About 80% and 90% of people treated for drug dependence relapsed (they return back using the drug) even after years of treatment. [7,8]

The public health importance of substance use and dependence is formidable.as it causes physical and psychological damage to the drug users, it causes family damage as marital violence, child abuse. And adverse child health effects [11,12] Also it cause social damage as it cause work place problems,[13])intentional and non intentional injuries, suicide and homicides[5] it has economic burden as it impose significant damage on the society it cost billions dollars especially in USA and UK [14].

Treatment for substance dependence is not only aimed at stopping drug use but to prevent relaps also.[15]

### **Patients and methods:**

During the period from 1<sup>st</sup> January to 31 December 2006, 67patients with drug dependence were diagnosed by the psychiatrists in Ibin Rushed Teaching Hospital in Baghdad according to DSM-IV criteria .All of them were male with ages ranging between 10 years and > 50 years . (Alcoholics were not enrolled in this study), Aquestionniar was designed in two part one for collecting socio demographic characters and other part for clinical variables like factors associated with relapse ,the type of the drug used, the duration of using the drug and the numbers of admissions.

By inter viewing with the patients (or his family) and by reviewing their records all these variables are collected.

The Socio-demographic variables include e.g. age, schooling years (primary school from 0-6 years, secondary school from 7-12 years, more than 12 years, marital status, and employment. The factors associated with relapse were registered as social problems like,povertry, deprivation of social support and social Integration, insecurity, social changes, mobility from rural to urban area),peer pressure(the friends who offers drugs).family problems( family disruption and dependence problems in the family,child abuse).

Data was analyzed by using SPSS package and chi square was used to test the significances of two variables. An Association was considered statically significant when p-value = 0.05 or less.

**Result:**

**Table 1: The distribution of the socio- demographic characteristics of the study sampl**

Socio demographic characters	No(67)	%
<b>Age groups(years)</b>		
10—19years	7	10.4%
20—29years	36	<b>53.7 %</b>
30—39years	13	19.4%
40—49years	8	11.9%
=>50years	3	4.5%
<b>Schooling years</b>		
Illiterate	14	20.9%
0—6years	20	29.9%
7—12years	30	<b>44.8%</b>
>12years	3	4.5%
<b>Employment</b>		
Yes	16	23.9%
No	51	<b>76.1%</b>
<b>Marital status</b>		
Married	36	<b>53.7%</b>
Unmarried	26	38.8%
Divorced	3	4.5%
Widow	2	3.0%

Table 1- shows that the most affected age group of the study sample is the age group 20-29 years (53.7%) ,followed by the age group of 30-39year (19.4%) and 40-49year (11.9%) and the least affected age group is >50 years ( 4.5%).

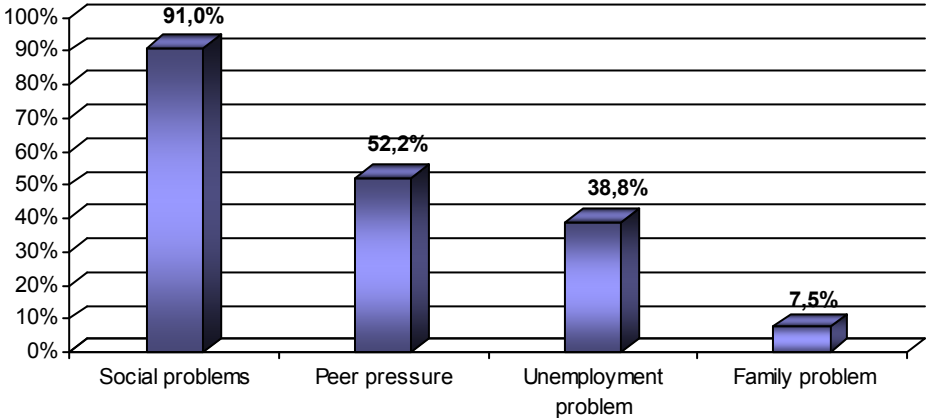
44.8% of the study sample has 7-12 schooling years (secondary school), about 30% are graduated from primary school and about 21% of them are illiterate, 76.1 of the study sample are Un employed, and only 23.9% are employed. 53.7 of the study sample are married, 38.8%are unmarried, 4.5% are divorced and 3% are widow.

**Table 2: The clinical characteristics of study sample.**

Duration of using the drug (years)	No of the patients(67)	%
<1year	2	3.0%
1—2year	9	13.4%
2-3year	16	23.9%
>3years	40	<b>59.7%</b>
<b>Number of admissions</b>		
First	23	<b>34.4%</b>
Second	22	32.8%
Third	15	22.4%
More	7	10.4%
<b>Type of the drug used by the study sample</b>		
Sedative and hypnotic drugs	29	<b>43.3%</b>
Anticholenergic drugs	22	32.8%
Antihistamine drugs	11	16.4%
Opiates like drug(Codien drugs)	5	7.5%

Table 2- This table shows the clinical characteristics of study sample as duration of using the drugs,numbers of admissions and the type of the drug used by the

patients. It shows that about 60% of the study sample used the drugs for more than three years and about 24% of them used drugs for 2-3 years. 13% used the drugs for 1-2 years and only 3% used the drugs for less than one year. Also, it shows that 34.4% of the study sample was admitted for the first time and 65.6% was admitted for more than one (32.8% had two admissions, 22.4% had three admissions and 10.4% had more than three admissions respectively). Regarding the type of the drug used, 43.3% of the study sample depend on sedative hypnotic drugs (like lorazepam and diazepam) and about 33% depend on anti cholinergic drug like hexobenze and 16.4% depend on anti histamine drugs (like diphenyl hydramine drug) and only 7.5% of the study sample depend on opiat like codien.



**Figure 1: The factors associated with relapse of drug dependence.**

Figure -1 show the factors associated with relapse of drug dependence, It shows that the most frequently Encountered factor is social Problems (91%), like poverty, deprivation of Social Integration, insecurity, social changes, mobility from rural to urban followed by Peer pressure (the friends who offers drugs).52.2%.Un employment 38.8% and family Problems 7.5%. ( family disruption and dependence problems in the family,child abuse).

**Table-3 Association between relapse of drug dependence and some variables.**

<b>Factors associated with relapse of drug dependence</b>	The numbers of the patients who were admitted for the first time(23)	%	The numbers of the patients who had relapse(admitted more than once 44)	%
<b>Duration of abuse(years)</b>				
<1year	2	8.7	-	
1—2years	3	13	2	4.55%
2—3years	7	30.4	13	29.55%
>3years	11	47.8	29	65.90%
P value =0.001				
<b>Social problems</b>				
Yes	18	78.3	43	97.73%
No	5	21.7	1	2.27%
P value= 0.0037				
<b>Peer pressure</b>				
Yes	13	56.5	25	56.82%
No	10	43.5	19	43.18
P value =0.004				
<b>Family problems</b>				
yes	20	87.0	42	95.45%
no	3	13.0	2	4.55%
P value =0.034				
<b>Employment</b>				
employed	11	47.8	14	31.82%
Unemployed	12	52.2	30	68.18%
P value =0. 002				

Chi squar is statistically significant when p-value is equell or less than 0.05.

Table-4 shows the factors that have association with the first admission and relapse of the study sample; it shows that the duration of using the drug has an association with the first admission and relapse of the study sample (p value=0.001),it show that the highest frequency of the

study sample who were admitted for the first time and who had relapse, was those who used the drug for more than 3 years(47.8%,65.90%) respectively followed by those who used the drug for 2-3years,1-2 years ,and less than 1year,(30.4%,13%,8.7% for the first admission) and(69.9%,29.55%,4.55% for relaps). Social problems show an association with the first time admission and relapse, most of the study sample is affected by social problems 78.3%,for the first admission and 97.73% for relaps) p value=0.0037. Peer pressure is another factor which has association with first admission and relapse (p value=0.004),about 56.5%of the study sample who were admitted for the first time and56.82% who had relapse,were affected by peer pressure. About 87%of the study sample who were admitted for the first time and95.45% who had relapse, were affected by family problems (p value= 0.037). ) also unemployment show an association with relapse (p value=0.002). 52.2%of the study sample who were admitted for the first time and 68.1% who had relapse,were Unemployed

### **Discussion:**

In this study the characters of the drug dependents are: young age patients, secondary school educated, married, Un employed. Most of them depend on sedative and hypnotics. And the main factor that associated with relapse of drug dependence is social problems.

The most affected age group was (20-29years) which is similar to that found in Al Amal hospital in al Riyadh in Saudi Arabia (20-29 years) [16] And similar to that found in Egypt,(20-29years) [17-18]. It is however the age group in this study was younger than that found in Kuwait (30-39year) [19] and older than that found in USA,Canada, France,(15-29 year) [7 ] The age of dependence depend on the age of onset of using the drug.as in Iraq, Saudi Arabia .Kuwait and Egypt the patients use the drug in older age than that in USA and Uropean people.The availability, cost, legality, marketing and cultural attitudes towards psychoactive drugs,are the factors which affect the age of using the drugs. [7]

Regarding education , of the 67 patients 44.8% had 12years schooling (secondary school) and 29.9% were(0-6)years schooling and only 4.5% were >12 years schooling, while in Saudi Arabia 47% had 12 years schooling and 34% were university educated [16].also in Egypt most of the drug dependents had 12years schooling and more than 12 years education . [17,18] In U.S.A 65% of collage students are drug abusers [7].

The most affected group had 12 years schooling and more. they are the most vulnerable to drug abuse this is mainly due to peer pressure and stress caused by Environmental factors which include family factors , social factor and economic situation, [7]

About the marital status, In this study the married drug dependent percentage was 54% which is less than that found in Saudi Arabia 72 % [16] and 85% in Kuwait [19], and in India the rate of married dependent was 77% [20].this low rate of marriage in this study may be due to social problems as insecurity ,poverty, and unemployment .

Considering employment 76.1% were un employed, this rate was more than that found in Saudi Arabia 55% [16], and much more than found in U.S.A which was 12.8 % [7] this may be due to bad circumstances of the country as sanction and social problems as insecurity and unemployment.

Regarding the type of the drug, sedative, hypnotic , anti cholinergic drugs ,antihistamine and codien are used by this sample respectively ,another study which was done by Ali Abdurrahman Younis; Hamdy Fouad Moselhy in Merjan Hospital, Al Hilla City, Babylon Governate, Iraq, between January 1991 and December 2000, they found that 65% of the patients depend on hexobenz and 35% depended on sedative hypnotics.[21]

this differ from the drugs used in Egypt (hashish and heroin are the most drugs used [17-18] and that in Saudi in Riyadh (23%sedative,18% herion,10.6% cocaine) [16] and that in U.S.A(17.7% marijuana,13.8% heroin,10.8 %cocaine, and 8.6% sedative[7].this is due to

Differences in the availability, cost, legality, marketing and cultural attitudes towards psychoactive substances and their use. [7]

The rate of relapse among this study sample was (66%) this rate agree with that in Kuwait

65% [19] and Saudi Arabia 64%[18] but much less than that in USA and Europe 80%, 90% respectively [15]. Studies in countries of the Medterian Region have shown that people

With drug dependence have the highest stigma among a physical and mental health conditions

[8]. This stigma prevents the affected persons from getting care and return back to treatment

if he had relapsed. In astudy from Cairo, only 12% of those dependent on drugs had received treatment at any time [17,18].also this is due to the type of the drug used and the age of onset of using the drugs Although psychoactive substances have the same common effects, there is considerable variability between drug classes in terms of primary physical and psychological effects, mechanisms of action, development of tolerance and withdrawal, and long-term effects which cause relaps [3, 4]

. Also the, age of onset of substance use is important aswell as events in life that can be characterized by a higher vulnerability to use, such as experimenting with drugs when entering adolescence and environmental factors that include economic situation, social support,social integration, and family factors. [7]

The factors which had association with relapse of drug dependence in this study were social problem 91%, peer pressure 52.2% un employment 38.8% and family problems constitute 7.5% . The factor which had association with relapse in Riyadh , Kuwait, Egypt, U.S.A are; peer pressure , social problems, family problems and unemployemet respectively. [7,16,18,19]

Social pressure is apowerfull predictor of drug abuse ,dependence and relaps in this study as the people experience major trauma at that time and before, like sanction, insecurity, poverty ,un employment and stress. Stress has long been recognized as a major contributor for drug abuse, dependence and relapse. People who survive disasters are prone to stress related disorders such as post trauma stress disorder and depression. People, who experience major trauma in their life experiences, may self-medicate with drugs or alcohol to relieve the symptoms of post trauma stress

### **Recemmendation**

Strict legal control on marketing of the drugs . Policy-makers and the general public must aware of and giving attention to drug use, and by Introducing primary prevention programmes, such as life-skills education in schools, Youth centres and clubs and includes a media campains.

More nation wide studies are needed to document factors leading to itiation and continuation of substance abuse and to help treatment and rehabilitative measures

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