

## Substance dependence in Diwania province

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### الخلاصة :

تمت الدراسة في مستشفى الديوانية التعليمي على (٢٠٠) من الأشخاص المدمنين على الكحول والمواد المخدرة للفترة بين الأول من شهر تشرين الأول لسنة (٢٠٠٧) إلى الأول من تموز لسنة (٢٠٠٩) لدراسة الواقع الاجتماعي و الديموغرافي و الاضطرابات النفسية المصاحبة لحالة الإدمان لديهم و قد بينت الدراسة :

- ١- إن نصف هؤلاء المدمنين هم من الفئة العمرية (٢٠-٢٤) سنة.
- ٢- أن ثلثي هؤلاء هم من العزاب ، ٦٠% من ذوي الدخل المتدني ، ٧٠% يعيشون مع أحد الأبوين و إن نصفهم لديهم تحصيل دراسي بسيط.
- ٣- أوضحت الدراسة إن نسبة ٣٠,٥% منهم مدمنون على تناول مادة الأرتين و أن ٢٥,٥ منهم مدمنون على مادة الريفوتريل.
- ٤- بينت الدراسة أن نصفهم بدأ تناول المادة المخدرة بتأثير صديق له.
- ٥- الاضطرابات النفسية المصاحبة لحالة الإدمان منتشرة بشكل واضح بينهم.

### Abstract:

#### **Background:**

Substance dependence refer to conditions arising from the misuse of alcohol, psychoactive drugs and other chemicals.

#### **Objectives:**

To detect the sociodemographic characteristics and the co morbidity of psychiatric disorders of drug abusers in Diwania province.

#### **Methods:**

200 drug abusers were studied between the age of (15-40) years in Diwania province during the period from the 1st of oct. 2007 to 1st of July 2009, among whom the 10th version of international classification of disease (ICD 10) was used to detect the dependency criteria and the co morbidity psychiatric disorders .Information about sociodemographic were taken from the subjects by constructed interview.

#### **Results:**

Distribution of the sample according to the age reveals that the age between(20-24) years constituted about half of the cases. Two third are single. Sixty percent are of low family income and 70% living with one parents also the educational state of the sample shows that half have only primary level.

The study shows that about 30.5% of the sample is dependent on Artane (benzhexol), and 25.5% dependent on Rivotril (clonazepam).

About half of the sample take the first drug with their friends. Co morbidity of other psychiatric disorders are so common among drug abusers.

**Conclusion:**

Substance abuse is common among young peoples. Being single and come from disrupted family are predisposing factors for drug abuse. Friends and availability of drug play important role in drug dependence. Accurate diagnosis and treatment of co morbidity psychiatric disorders play important role in outcome.

**Introduction**

Substance abuse is one of the major health problems. The phrases substance use disorder according to Diagnostic and statistical manual of Mental disorders (DSM-IV) or disorders due to psychoactive drug according to International Classification of Disease (ICD -10) are used to refer to conditions arising from the misuse of alcohol, psychoactive drugs and other chemicals (1).

Death associated with alcohol abuse and alcoholism now rank the third, behind heart disease and cancer (2).

Alcoholism, the most common substance use disorder affects millions of people each year (3).

Use and cultural acceptance of other psychoactive substnecs including illegal drugs are increasing significantly (4).

For example, in 1962, the National Institute of Mental Health estimate that fewer than 4% o f the population had ever used an illegal drug ; by 1998 about 33% of North Americans 12 years of age or older had experiment with marihuana, hallucinogenic drugs (eg,LSD),cocaine, or heroin or had used prescription of pharmaceutical drugs for non medical purposes(5).

In the last two decades, the only population group in the USA that has shown an increase in the rate of deaths associated with substance abuse is that between(16- 24) years of age.

Alcohol and drug related accidents, homicides, and suicides are major factors in this increase ( 6 ).

Drug abuse is defined as the use of a psychoactive drug to such extent that it seriously interferes with health or occupational and social functiouing.

Drug addiction as defined by the World Health Organization(WHO) is over whelming involvement with the use of a drug , compulsive drug seeking behavior and a high tendency to relapse after withdrawal(7).

The W H O stresses that addiction should be viewed on a continuum relative to the degree where drug use affects the total life quality of the drug user and to the range of circumstances in which it controls his behavior(5).

Comorbidity will be a mental and behavioral disorder coexisting with psychoactive substance use.

Which condition occurs first ? in the case of an initial substance misuse problem ,can lead to psychiatric complications & longterm comorbidity ( 8).

Substance abuse may be precipitated in a vulnerable individual & increase drug use within this group for a variety of reasons such as common risk factors between psychiatric illness and substance misuse (9).

Some suggest a preferential use of particular drugs for symptomatic relief, other than a sense of control is exerted by the use of drug ( 10 ).

The strongest finding of Goldenberg et al 1995 was an avoidance of stimulant drugs in those with primary diagnosis of anxiety disorder. This was not found in those with a primary diagnosis of substance misuse disorder (11).

The prevalence of antisocial personality disorder is 5% of males and just less than 1% of females. When there is a co morbid diagnosis of substance misuse disorder, antisocial personality disorder rate rise to 18% (12).

(Burke et al 1994) found that mood disorders are also associated with a four – fold increased risk of subsequent substance misuse especially if a mood disorder has developed before the age of twenty years (13).

.while (Feirnnan & Dunner 1996) study 188 case of bipolar affective disorder for co morbidity rate, they observed about 35% had substance abuse, the most common drugs abused by this group, in more than 50% of cases, were stimulants (cocaine or amphetamine) (14).

When substance misuse has been observed in Post Traumatic stress Disorder (PTSD) patients, it has been found to parallel the development of the PTSD. Also noticed selective use of sedative drugs and avoid stimulant one (15).

Fals-stewart and Angarano (1994), In a study selecting its patients from a substance misuse setting, co morbidity of obsessive compulsive disorder was found to be 11% at least four times the incidence of that found in the general population (16).

While Fals-Stewart and Scafer (1992) noticed that accurate diagnosis of obsessive compulsive disorder within substance misuse patients has been shown to be important as regards outcome (17).

Schizophrenia complication arising from co morbidity include, increased violence, suicide, non compliance with treatment, earlier psychotic breakdown, exacerbation of psychoptic symptoms, increased rate of hospitalisation, tardive dyskinesia, homelessness & overall poor prognosis (18).

Substance misuse is the most prevalent co morbid condition associated with schizophrenia, and recent prevalence studies suggest that substance misuse among patients with schizophrenia is increasing when the first psychotic episode occurs, there is a suggestion that it may have an earlier onset, be more abrupt, and with less negative symptoms of schizophrenia than in those who don't misuse substance (18).

Austrian study looking at self report of substance misuse in patients with schizophrenia showed that, 40% of patients used cannabis and 8% used amphetamines, with 20% using more than one substance (19). Initial reasons for starting drugs were either peer pressure or in 30% of cases to relieve dystonia and anxiety. Continued use in 80% of cases was because the drugs were perceived as relieving dystonia or anxiety or to enhance social interaction within their cultural subgroup (19).

Patients with co morbidity were found to be young males with depressive symptoms or possible negative symptoms, and these symptoms were identifiable triggers for substance misuse in this condition and could be amenable to treatment, therefore clinical efforts should be made towards this aim.

Co morbidity in schizophrenia shows that over a 7 year follow up period in 29 subjects that abused substances, 46% still continued to abuse substances at follow up. In those that had dependency syndrome, 69% continued to abuse substances at follow up (20).

A study of the effects of substance misuse on treatment response in chronic schizophrenic patients showed that young substance misusers had higher rates of visual and olfactory hallucinations and decreased treatment responsiveness of auditory and tactile hallucinations as a result of their continued substance misuse (21).

Darke and colleagues (1995) in their paper they reviewed 13 projects in addition to their review of the literature and identified nine key principles of treatment for this group. The principles are, assertiveness, close monitoring, integration,

comprehensiveness, stable living environment flexibility in specialisation, stages of treatment, longitudinal perspective, and optimism(22) .

Holderness and Colleagues (1994) found that eating disorders are a form of addiction, substance misuse is a form of self medication and both disorders have a common aetiology such as dysfunctional families. Bulimia is found to be more strongly associated with substance misuse than is anorexia. Prevalence of substance misuse in bulimic patients is 20%. The drugs misused were cannabis, amphetamine and benzodiazepines.(23).

**Methods**

200 drug abuser were studied between the age of (15-40) years in Diwania province during the period from the 1st of oct. 2007 to the 1st of July 2009 ,among whom the 10 th version of International Classification of Disease (ICD10) was used to detect dependency criteria .Informations about sociodemographic were taken from the subjects by constructed interview.

All whom used substances that cause dependency were included in the study.

We look after co morbidity of other psychiatric disorders by psychiatric interview using (LCD 10) .

Every one was interviewed privately and participated voluntarily.

Each participant was fully informed of the purpose of the interview and their consent was taken.

The data where analyzed using degree of freedom (dof) , chi-square test & probability (P. value) where computed for the differences between groups and estimating the strength of association of the risk factors and the occurrence of the disorder .

**Results :**

The results are expressed in the following tables

**Table No .(1) distribution of the sample according to age :**

Age group	Number	Percent
15-19	63	31.5
20-24	85	42.5
25-29	28	14
30-34	15	7.5
35-0ver	9	4.5
Total	200	100

Chi-sq=107.1

dof =4

p.value=0.001

There is a significant age difference with a higher rate(42.5%) in the age between (20-24) years.

**Table NO. (2) Marital status of the sample**

Marital status	Number	Percent
Single	160	80
Married	30	15
Divorced	10	5
Total	200	100

Chi-sq=201.03                      dof =2                      p.value=0.002  
80% of the sample were single which is statistically highly significant.

**Table NO. (3) distribution of the sample according to family income**

Family income	Number	Percent
Low family income	120	60
Moderate family income	60	30
High family income	20	10
Total	200	100

Chi-sq=76.788                      dof =2                      p.value=0.005.  
The percentage of drug dependency in patients having low family income is(60%) which is higher than others. These differences are significant in which p value is lesser than 0.05.

Low income: the income of the patient and his or her family is not sufficient for his or her daily requirement.

Moderate income: the income of the patient and his or her family is sufficient for his or her daily requirement.

High income: the income of the patient and his or her family is sufficient for his or her daily requirement and for extra needs.

**Table NO. (4) distribution of the sample according to the state of living with parents**

State of living	Number	Percent
Living with both parents	50	25
Living with one parent	140	70
Living with relative	10	5
Total	200	100

Chi-sq=134.364                      dof =2                      0.003  
70% of the sample lives with one parent which reveals highly statistically significant with p value lesser than 0.05.

**Table NO. ( 5 ) Educational state of the sample .**

Educational state	Number	Percent
Primary	97	48.5
Intermediate	53	26.5
Secondary	41	20.5
University	9	4.5
Total	200	100

Chi-sq=79.6                      dof =3                      p.value=0.005  
 48.5% of the sample has primary educational level which is statistically significant with p value lesser than 0.05.

**Table NO. (6) distribution of the sample according to accupation**

Occupation	Number	Percent
Governmental officer	8	4
Worker	27	13.5
Student	35	17.5
Unemployed	130	65
Total	200	100

Chi-sq=178.36                      dof =3                      p.value=0.0  
 Regarding the occupation unemployment form(65%) among drug abusers, found to be significant with p value lesser than 0.05.

**Table No.(7) distribution of the sample according to the type of the abused drug**

Abused drug	Number	Percent
Diazepam (valium )	8	4
Clonazepam (rivotri)	51	25.5
Lorazepam(ativan )	31	15.5
Nitrazepam (mogadon)	24	12
Benzhexol (artane)	61	30.5
Procyclidine (kemadrin)	4	2
Alcohol	7	3.5
Poly drug use	14	7
Total	200	100

This table show that 30.5 % of the sample are dependent on artane while 25.5 % dependent on rivotril

**Table No. (8) distribution of the sample according to the source of taking the first drug.**

The source	Number	Percent
Friends	89	44.5
Work group	68	34
Student	20	10
Relative	12	6
More than one source	11	5.5
Total	200	100

Chi-sq=130.25                      dof =4                      p.value=0.005  
 44.5% of the sample the source are friends which is statistically significant.

**Table No.(9) distribution of sample according to the resultant feeling of taking drug .**

Feeling	Number	Percent
Desire for sleep	54	27
Living in romantic atmosphere	38	19
Feeling of activity	36	18
Happiness & euphoria	72	36
Total	200	100

Chi-sq=16.8                      dof =3                      p.value=0.01  
 Happiness and euphoria , desire for sleep constitute 36% , 27% respectively as resultant feeling of taking drug which is statistically significant.

**Table No.(10) distribution of the sample according to the causes of their preference for taking the substance .**

Cause of preferenc	Number	Percent
No odour left on taking the drug	55	27.5
Being cheap	47	23.5
Bringing more comfort	43	21.5
Easy accessibility	35	17.5
More than one cause	20	10
Total	200	100

Chi-sq=17.7                      dof =4                      p.value=0.02  
 Being cheap, had no odour left on taking the drug and easy accessibility considered important causes of their preference for taking the substance.

**Table No. (11) distribution of the sample according to thier feeling on taking the drug for the first time**

The experienced feeling	Number	Percent
Desire for sleep	60	30
Feeling of fear	47	23.5
Feeling of numbness	40	20
Feeling of comfort	38	19
Feeling of exhaustion	15	7.5
Total	200	100

Chi-sq=26.95                      dof =4                      p.value=0.01  
 Desire to sleep & feeling of fear constitute 30 % , 23.5% respectively as feeling of taking the drug for the first time.

**Table No. (12) Co morbidity of psychiatric disorders**

Comorbid disorder	Number	Perce n t
Personaliy disorders	53	26.5
Mood disorders	21	11.5
Generalis anxiety disorder	27	13.5
Social phobia	22	11
Schizophrenia	5	2.5
Post traumatic stress disorder	11	5.5
Obsessive compulsive disorder	6	3
Eating disorders	1	0.5
Noclear comorbid disorders	54	27
Total	200	100

Chi-sq=140.431                      dof =8                      p.value=0.015  
 Co morbidity revealed that about 26.5 % had personality disorder mainly antisocial subtype. generalised anxiety disorder, mood disorders & social phobia had,13.5%, 11.5%, 11%, respectively. 27% had no clear co morbid disorders.

**Discussion**

The aim of this study is to explore the sociodemographic background and the comorbidity of other psychiatric disorders of an important problem in our society which attracts an increasing concern and attention.

Regarding the age we have seen that most of drug abusers are in their early twenties this result goes with what (Hall W, et al 1997) have noticed (8).

This result can be justified that these people suffer more stresses and they have limited experiences in their life.

Being single, poor, and unemployment are predisposing factors for drug dependence. This result coincident with what (Johnson S, et al 1997) have concluded (9).

Most of our sample depend on Artane(Benzhexol),Rivotril(clonazepam),30.5%;25.5% respectively this may be due to their psychoactive effect,its illegal availability besides low price. This finding is inconsistent with what (Neeleman J, et al 1997) have noticed(10).

Also the study revealed that the majority of abusers take their drugs with their friends. This highlights the effect of peer group. Consequently, the families are required to pay more attention for their children and their relationships.

Resultant feeling like happiness and euphoria, desire to sleep and feeling of activity play important role in drug abuse. This may reflect an underlying psychiatric disorders that they had.

Their preference of any drug, may be due to being cheap, had more comfortable effect and had no odour left on taking it, supported by relieving of unpleasant feeling such as shyness or anxiety (11).

About half of our sample had only primary level of education this revealed that education has protective role against dependency.

We found that there is increased drug use within people who had other psychiatric disorders, 26.5% of our sample had personality disorders mainly antisocial subtype. This result was consistent with study of (Cotter et al 1995) who found 18% of his sample had antisocial personality disorder(12).

Regarding the co morbidity our study revealed that generalized anxiety disorder, mood disorders, social phobia constitute 13.5%, 11.5%, 11% respectively this results goes with what (Goldenberg I M, et al 1995) and Burke Jr, et al 1994) have concluded (11)(13).

5.5% of our sample had PTSD criteria this result is consistent with (Bremner et al 1996) who notice that when misuse has been observed in PTSD patients, it has been found to be parallel the development of the PTSD.

This supports the hypothesis that substance misuse in PTSD is a form of self medication.

Also they found that selective use of sedative, primarily alcohol, cannabis, heroin and benzodiazepines which would depress hyper arousal and induce numbing on exposure to stimuli specific for PTSD. It has been found that these patients avoid stimulants such as cocaine and amphetamines (15).

3% of our sample had obsessive compulsive disorder while (Fals-Stewart & Angarano 1994) found 11% of their sample had this disorder(16).

Also( Fals-Stewart & Schafer 1992) noticed that accurate diagnosis of OCD within substance misuse patients play important role in outcome(17).

Our study revealed that 2.5% of the sample had schizophrenia at least three time the incidence that found in the general population, this result goes with what (Smith J,& hucker S 1994) found who noticed also that these patients suffer more complications(18).

Also an Australian study (Baigent M et al 1995) found that substance misuse in patients with schizophrenia was,40% of patients used cannabis and 8% used amphetamines while 20% using more than one substance(19).

With their study (Bartels S J et al 1995) found that ,69% of schizophrenic patients still abuse drugs for 7 years follow up(20).

While (Sokolski K N et al 1994) showed that chronic schizophrenic patients with drug misuse had higher rates of visual and olfactory hallucinations and decrease treatment responsiveness of auditory and tactile hallucinations as a result of their continued substance misuse (21).

0.5% of our sample had eating disorders in form of bulimia nervosa. (Holderness CC et al 1994) found that the prevalence of substance misuse in bulimic patients is 20% also they notice that bulimia to be more strongly associated with substance misuse than is anorexia (23).

### **Conclusions**

- 1-Drug dependency is one of major health and social problems among young people.
- 2-Friends play important role in starting taking the drug
- 3-Avalability beside low price are important factors in dependency
- 4-Education has protective role against dependency
- 5-Disrupted family and low economic state play important role in drug abuse.
- 6-Accurate diagnosis and treatment of co morbid psychiatric disorders with drug abuse shown to be important as regards outcome.

### **Recommendations and suggestions:**

- 1- Educational institute,media and religious authorities take their responsibilities to alarm people about the hazards of drug dependency.
- 2-There must be a cooperation between educational goverenmental and medical organizations to deal with such big problem.
- 3-There must be a restricted and deterred procedures against the availability of illegal drugs and this must be handled by interior security affairs..
- 4-Reinforcement of the procedures on the country boundaries to prevent smuggling of drugs.
- 5-Invitation to open good and highly qualified centers to deal with the dependent people and provide supportive measures.
- 6-Unemployment problems especially among young people must be dealt with seriously.

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