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Socio-demographic and Clinical Profile of Relapse Among with Substance Use Disorders in an Egyptian Sample, Descriptive **Cross-Sectional Study**





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ABSTRACT

Background: One of the major problems after successful detoxification and rehabilitation in patients with substance use disorders (SUD) is high rate of substance use relapse, even after a long period without using illegal drugs. More than 50 % of patients with SUD relapse after treatment and rehabilitation. Aim: this study aimed to assess sociodemographic and clinical profile of relapse among patients with substance use disorders in an Egyptian Sample. Method: A descriptive cross sectional study design was utilized with a sample of 210 patients diagnosed with substance use disorders with recurrent admission to psychiatry outpatients clinics at Mansoura University Hospital. Data was collected using socio-demographic characteristics and clinical data sheet. Results: Result in this study revealed that Less than three quarters (73.3%) of studied patients were between 20 to less than 35 years. The majority of the sample were males (98.6%). Less than half of studied patients (44.3%) were intermediate education /education above average . Near to half of studied patients (47.1%) were single. More than half of the studied patients were not working, live in urban areas (52.45%) and (57.6%) respectively. Majority of studied patients had insufficient income (81%). Conclusion: Current study shows that age, gender, marital status, education, family income, area of residence and other socio demographic and clinical data are associated with substance use relapse. Recommendation: This study will be helpful for early determine of relapse factors with more accuracy based on their socio-demographic features.

Keywords: Relapse, Substance use disorders, Socio-demographic, Clinical profile.

1.Introduction:

Substance use disorders conditions and consider one of the most important health problems worldwide (Darharaj et al., 2023). Substance use disorder is defined as a maladaptive pattern of substance use that occurs at any point throughout the same 12-month period and causes clinically significant impairment or suffering. Its external manifestations include withdrawal, tolerance, and other symptoms (Volkow & Blanco, 2023).

In Egypt, drug usage skyrocketed, and new drugs were introduced daily. 5.5% of people worldwide between the ages of 15 and 64 reported taking drugs or alcohol at least once in the previous year, according to the most recent data. Substance abuse is a common problem that can devastate a person's relationships, finances, and economy (Maghawry, Darweesh, Mohammed, El-hameed & Abd El-ghany, 2024).

Substance addiction is a severe problem that frequently remains untreated worldwide. It can have a disastrous effect on relationships, work, the economy. overall well-being, and social functioning. The strong need to use substances and the incapacity to regulate this urge in an individual with addiction are caused by long-lasting alterations in brain networks involved in reward. executive function, stress reactivity, mood, and self-awareness (Ahmad et al., 2020).

Substance abuse disorders are chronic mental illness characterized by substance cravings and compulsions, as well as a lack of control despite negative consequences. Because individuals in recovery from it are susceptible to relapsing after vears of abstinence from substance abuse, it is referred to be a "relapsing" disorder (Montaser, El Malky, & Atia, 2023).

Relapse is a process wherein a lengthy series of maladaptive reactions to internal or external stressors and stimuli culminate in the restart of substance use. According to estimates, between 75 and 90 percent of substance abusers' relapse from chemical dependence within the first year after finishing treatment. Furthermore, urge, craving, and drug temptation, negative or positive emotional states, negative physical states, tests of self-control, conflicts with family or other relationships, peer and social pressures to use

substances, and treatment-related obstacles are all associated with relapse (Abdelaal & Atta, 2018).

Relapses in substance usage substantially correlated with age group. Relapserelated factors are crucial to the stabilization and recovery strategy to maintain sober. Numerous can influence relapse, including socioeconomic status, occupation, income, site of living, stress from work or unemployment, and degree of education. These indicators may influence a person's drug-addiction behavior directly or indirectly (Aljasmi, Alhorani, & Algarbawi, 2024).

1.2 Significance of the Study

Substance abuse is a widespread, significant, difficult, and expensive health issue that affects individuals, families, and communities in ways that are physical, mental, and psychiatric. It has a significant impact on every aspect of society, including the high expense of healthcare, the impact on people's physical and mental health as well as that of their families, and the negative consequences it has on society due to issues of crime and violence (**Dawood**, **2018**)

To the best of my knowledge, there is a lack of epidemiological data about the prevalence of relapse among patients with drug use disorders in Egypt, and little is known about the contribution of socio-demographic factors to substance use relapse. Therefore, the purpose of this study was to investigate the socio-demographic characteristics of relapsed patients with substance use disorders.

2. Aim of the Study

This study aimed to assess sociodemographic and clinical profile of relapse among patients with substance use disorders in an Egyptian sample.

2.1 Research questions

To fulfill the aim of this study, the following research questions are formulated:

Q:what is the socio-demographic and clinical profile of relapse among patients with substance use disorders in an Egyptian sample?

3. Method

3.1 Design

This study used a descriptive cross sectional research design .

3.2 Setting

This study was conducted in Psychiatry Outpatients Clinics at Mansoura University Hospital.

3.3 Subjects

The subject of the study comprised 210 patients diagnosed with substance use disorders who fulfill the following criteria: all patients have recurrence admission of substance use disorder, both gender, age from 15 to 65 years old, Patients willing to participate in the study

3.4 Data Collection Tool

A semi structured interview questionnaire was used to obtain the socio-demographic characteristics and clinical data of the studied patients.

Socio-demographic characteristics and clinical data sheet:

This questionnaire was developed by the investigator based on reviewing recent related literature. It included information about:

socio-demographic characteristics: which cover Patient's name, age, sex, marital status, educational level, occupation, presence of family problems,.....etc.

Clinical data: such as age of onset of substance use, reason of starting substance abuse, types of abused substances, amount of cigarette smoking, previous admission to a psychiatric hospital, number of relapses, reason of relapse, social, occupational, legal and financial consequences of abusing substances, ways of getting abused substances, previous trials of stopping substances abuse, any physical illness and family history of addiction.

3.5 Pilot Study

A pilot study was approved out on twenty substance abuse with recurrent admission to psychiatric outpatient's clinics in Mansoura university (10% of the sample's total). to check the applicability, possibility and clarity of the tool and the required time for each CCN to fill in the data collection sheet. Concurrently, the essential

adjustments were done.

3.6 Ethical Considerations

An ethical approval (ref. No 300)was taken from the Research Ethical Committee of the Faculty of Nursing – Mansoura University. An official permission for carrying out the study was gained from the Head of Psychiatric Department of Mansoura University Hospital. Patients were notified about the aim, risks, benefits and procedure of the research. They were also informed that participation in the study is voluntary. An informed consent was received from those who agreed to take part in the study. Participants were assured that their personal data will be kept

confidential. They were also informed that they can leave the study whenever they want without penalty.

3.7 Data Collection process

- Data were collected by the researcher over eleven month period (between September 2023 and july 2024).
- Before commencing data collection, official permission to conduct the study was obtained from the head of the department of psychiatric and mental health department Mansoura after explaining the nature of this study.
- The researcher set up a meeting with available patients in psychiatric outpatient's clinics explaining the study's aim and nature, and inviting them to participate in this research.
- Each patient takes about 10 to 15 minutes to complete the data

3.8 Data Analysis

The collected data was coded, computerized and analyzed using the Statistical Package of Social Sciences version 22.0 (SPSS). Categorical data were expressed as number and frequency. While continuous data were normally distributed and were expressed as mean \pm standard deviation (SD).

4. Results

Table 1 summarizes the demographic data of the participant nurses in the studied patients reveals that the age of the study sample ranged from 15 to 60 years with a mean \pm SD of 31.01 \pm

7.356. Less than three quarters of them (73.3%) were between 20 to less than 35 years. The majority of the sample were males (98.6%). As regards the level of education Less than half of studied patients (44.3%) were intermediate education /education above average. Regarding marital status, half of the study sample (47.1%) were single while married ,divorced and separated were 41%, 6.7% and 5.2% respectively. More than half of the study sample were not working ,live in urban areas (52.45%) and (57.6%) respectively. Majority of studied patients had insufficient income (81%).

Table 2 demonstrates that more than half of the study sample (56.7%) had no previous hospitalization in any addiction unit. Regarding to admission the majority of the study sample were voluntary admission (80%) .Most of the studied sample were smokers (98.1%) with less than half of them (43.3%) were smoking one packages per day, while 57.6% of the studied patient were using water pipe. As regards to the age of onset of abuse, Less than three quarters of the study sample (72.5%) were between the age of 10 to 19 years old followed by 20- 35 age group (26.2%). Regarding to the reason of starting abuse less than half of the study sample (45.7%) mentioned the peer pressure followed by curiosity (30%). Near to one third of the studied sample (30.5%) had a family history of addiction.

Table (1).: Distribution of studied patients according to Socio-demographic characteristics:

Socio-demographic characteristics	N (210)	100%
Age (years):		
15 to less than 20	7	3.3
20 – less than 35	154	73.3
35 to 60	49	23.3
Mean \pm SD = 31 \pm 7.35690		
Gender		
Male	207	98.6
female	3	1.4
Educational level :		
Illiterate	23	11
Read& write /primary/Preparatory school	63	30
Secondary / Intermediate education/Education above average	93	44.3
University education	31	14.8
Marital status :		
Single	99	47.1
Married	86	41
Divorced	14	6.7
Separated	11	5.2
Occupation:		
Not working	110	52.4
Employee	11	5.2
Worker	89	42.4
Place of Residence :	101	
Urban	121	57.6
Rural	89	42.4
income satisfaction		
insufficient		
sufficient	170	81
	40	19
Total	210	100%

Table 3 shows that more than half of first (initial) abused substances by the studied sample were hashish (52.5%) followed by bango (37.5%) then tramadol (22.9%), while the majority of current abused substances by the studied sample were herion (44.9%) and shapoo (14.3%) followed by tramadol (18.2%) and benzodiazepine (Apetryl) (6.2%).

Table (4) illustrates that more than one third of the study sample (34%) had three to five times

of relapse, (26.2%) once and (22.4%) had two times relapse. Less than half of the relapses (43.9%) caused by they can't tolerate stop using it. Regarding the duration of treatment one third of the study sample (33.3%) started treatment from 1 year to less than 3 years. Almost all the study sample (100%) had previous trials of stopping abuse and more than half of these trials (52.4%) were done alone by themselves.

Table (2). frequency Distribution of studied sample according to clinical data.

clinical data	N (210)	(100)%
Previous hospitalization (addiction unit):		
No	119	56.7
Once	33	15.7
Twice	43	20.5
More than 2 times	15	7.1
Attendance to outpatient:		
Involuntary	42	20
Voluntary	168	80
Smoking:		
No	4	1.9
Yes	206	88.1
If yes (206)		
Less than 1 package	55	26.2
1 package	91	43.3
1.5 packages	27	12.9
2 packages	26	12.4
More than 2 package	7	3.3
Using water pipe (shisha):		
No	89	42.4
Yes	121	57.6
Age of onset of substance abuse:		
10 - less than 20 years	152	72.5
20 - less than 35 years	55	26.2
35 to 60	3	1.4
Reason of starting substance abuse*:		
Peer pressure	96	45.7
Escape from family problems	27	12.9
Escape from marital problems	15	7.2
Curiosity	63	30
Primary used to treat physical pain then abused	6	2.9
Sexual desire	10	4.8
Social isolation	6	2.9
Family history of addiction:		
No	145	69.5
Yes	64	30.5
Total	210	100%

 Table (3). Frequency Distribution of Types of Substance Abuse:

Variables	N (210)	(100)%
First (initial) abused substances*:		
Tramadol		
Bango	48	22.9
Hashish	77	37.5
Herion	107	52.5
Alcohol	5	2.4
Benzodiazepine: (Apetryl)	8	3.8
Current abused substances*:	1	0.5
Tramadol		
Bango	38	18.2
Hashish	12	5.9
Cocaine	15	7.2
Heroin	6	2.9
Alcohol	92	44.9
Shapoo	5	2.4
Benzodiazepine: (Apetryl)	30	14.3
plagica	13	6.2
Brown suger	8	3.9
Lyrolin - Lyrica	2	1.0
Gaptin – gapimash	1	0.5
Medrapid	10	4.8
	4	1.9
total	210	100%

^{*}more than one answer was allowed.

Table (4). Prevalence and Causes of Relapse and Duration of Treatment of the Studied Sample:

Variables	N(210)	(100)%
Number of relapses:		
One time	55	26.2
Twice	47	22.4
Three to five times	70	34
six to eight times	30	14
More than eight times	8	3.4
Causes of relapse:		
Availability of substance and money	24	11.4
I can't tolerate stop using it	92	43.9
Social problems	48	22.9
My friends	44	21
Sexual desire	4	1.9
Trials of stopping abuse:		
No	0	0
Yes	210	100
Who help you to stop:		
Alone	110	52.4
Others	96	45.7
Health team member	4	1.9
Duration of treatment:		
1month- less than6 months	32	15.5
6 months- less than 1 year	55	26.2
1 year- less than 3 years	70	33.3
3 years and more	53	25.2
Total	210	100%

5. Discussion

Regarding the socio-demographic characteristics of the studied patients, results of the present study revealed that Less than three quarters of them (73.3%) were between 20 to less than 35 years with a mean \pm SD of 31.01 ± 7.356 . This may be due to the increased stress, strain and demands during adolescence period, which may lead them to use substance as a way of relief also, this period is characterized by productivity and starting work and become responsible , getting immersed and influenced by their peers.

This is consistent with (Abdelaal & Atta, 2018) study that involved 120 drug addict patients who attending outpatient clinic at institute of psychiatry affiliated to Ain Shams university hospitals and outpatient clinic at El khanka hospital, it released that the highest percent of studied patients were between 25 and 45 years of age. Moreover, The study done by Maghawry, Darweesh, Mohammed, El-hameed& Abd Elghany, (2024) which conducted at the inpatient unit of addiction treatment at the Psychiatry, Neurology and Neurosurgery Hospital at Assiut University found that the mean age of patients with substance use disorder was 29.62.

The current study reported that the majority of the sample were males. This may be due to the high stigma associated with girls than boys using substance or even smoking cigerattes so it will be very shameful for girls to come to the outpatient addiction clinic seeking treatment So, women prefer to go to private clinics for treatment to conceal their addiction and its related stigma. This is in agreement with study done by Metwaly, Alzeiny, Ahmed, Ahmed & Emara, (2024) which conducted for 153 at the inpatient units and addiction outpatient clinics at El-Azazi Hospital for Mental Health revealed that 100% of studied patients were male.

Concerning level of education, highest percentage of drug abuse was among patients who only read and write and those with diplome / intermediate education. This result is supported by increase curiosity and use the substance like their peers so this affect their level of education and not complete education This result agree with what was reported by Ahmad, Shah, Sakari, Yusoff& Suhaimi, (2020) study consisted of 250 male drug addict which conducted throughout Cure and Care Rehabilitation Centre (CCRC) in the East Coast, Malaysia which represent more than half of the respondent were from higher secondary school.

Regarding marital status near half of the study sample were single related to they don't able to get married, become responsible of family, all his attention on how to get the substance. This result is constitute with (Abdelaal & Atta, 2018) who reported that half of the study sample was single. On the other hand Suwanchatchai, Buaphan& Khuancharee, (2024) stated that half of the studied patients were married.

Concerning occupation ,more than half of the study sample were not working as result of recurrence absent ,loss of concentration ,asking about a lot of money even before start working, taking the treatment of abused substance, presence of withdrawal symptoms which make patients unable to work and stay in home in order to not meeting old friends who may slip patients again to substance abuse .This result is constitute with Dawood, (2018) A descriptive study was conducted addict patients in Baghdad City samples of 65 relapsed addicts who are inpatient in Ibn-Rushd Psychiatric Teaching Hospital reveled that less than three quarters of their patients were unemployed. This result was not harmonious with study conducted by Suwanchatchai, Buaphan& Khuancharee, (2024) who revealed that more than three quarters of their patients were employed.

According to the residence more than half of the studied patients live in urban areas possible reason for this result may be due to people in rural area start working with their parents in young age and always busy not spending their time on coffee or have free life. This is consistent with study conducted by Maghawry et al., (2024) who reported that residence distribution of patients with substance use disorder was higher in urban area. This result is inconsistent with Metwaly et al., (2024) who reported that residence distribution of patients with substance use disorder was higher in rural than urban communities.

In relation to income, majority of the study have insufficient income related to not working and spending all money to get substance. This finding is in the same line with Metwaly et al.,(2024) who found that about two third of the studied patients had low income. In contrast to the present study results Dawood, (2018) who reveald that nearly half of the study sample were barely sufficient income.

In relation to previous hospitalization majority of the study not having previous admission to the inpatient unite related to there are restrict criteria to admitted to inpatient clinics as it should be voluntary admission, urine analysis is

free from any substance stop taking any substance for ten days ago, So patient may stop drinking for nine days and slip in the last day This result is inconsistent with Kabisa, Biracyaza, Habagusenga Umubyeyi, (2021)Retrospective, cross-sectional survey conducted among 391 patients with SUD at Icvizere Psychotherapeutic Centre (IPC), Rwanda who found that majority of the study sample had Previous hospitalization between two to three months.

Regarding to smoking, majority of the study was cigarette smokers with the majority of them were smoking one package and more per day. This may be explained as follows, cigarette smoking is just the beginning and after that most of them use it as a mode of inhalation of addictive substances and the more he indulged in drugs, the more he became voracious in drinking cigarettes. This finding is the same line with Tarabih, El-bilsha & El-boraie ,(2020) cross-sectional study which carried out at University outpatient clinic, which Mansoura revealed that drug abuse was significantly higher cigarette smokers compared with among nonsmokers. And disharmony with Khafagy, Gomaa& Elwasify, (2021) A cross-sectional observational study recruiting 1138 student was conducted at Mansoura University who reported that that majority of the study sample were not smoking.

In relation to the age of onset of substance abuse the current study showed that more than half of the studied patients were between 10-19 age group. This may be due to the nature of the adolescence period. The age of adolescence is a challenging time. During these ages, youths are making a series of cognitive, biological, psychological, and physiological transitions. Some say that adolescents are "wired" for to seek new experiences and risk-taking. They are in a period where they are trying to find their own identity, looking for peer acceptance, and deal with problems or perform well in school. This makes them more prone to experiment with substances and engage in other harmful behaviors. Similarly, (Abdelaal & Atta, 2018) revealed that more than half of the study subjects started using drugs at age of 15to less than 25 years old.in contrast with Maghawry et al ..(2024) study revealed that more than half of the studied patients were between the age of 20 to 30 years.

The present study showed that nearly half of the studied subjects reported that the main reason or motive for initiation of substance use was peer pressure followed by curiosity. This may be explained by their need to blend in with their peers because they see everyone else doing it and for them it is a way of spending time with peers and of being accepted, also they may fear that if they refuse they might alienate potential friends.

Although, This result is inconsistent with the study conducted by Mohamed, Ahmad, Hassaan & Hassan, (2020) which revealed that Two third of the studied patients revealed that the main reason for initiation of substance use was Mixed reasons as bad friends, trial, to give the patient strength and activity, to forget problems and feel flatten, weakness of sexual ability, excessive money, chronic pain. Additionally, Mousali et al.,(2021) cross-sectional study was conducted on 396 addicts referring to the addiction treatment centers in Hamadan demonstrate that personal willingness is the main reason for initiating substance use.

The current study demonstrated that near to one third of the studied sample had a family history of substance abuse. Drug addiction runs in families and relatives of drug dependent individuals have an eightfold increased risk of developing substance abuse

disorders compared with the general population. This is in harmony with Gizaw, Amdisa& Lemu, (2020) revealed that Half of the studied patients had a positive family history of substance abuse.

The present study showed that the majority of initial abused substances by the studied sample were hashish and bango These findings might be explained by easy availability of hashish and bango and the suitable price for adolescents ,using it in happy event as weeding party and consider it just cigarette smoking not substance abuse . while the majority of current abused substances by the studied sample were heroin ,tramadol followed by shapoo (Crystal Mas) These findings might be explained by several reasons, including the fact that heroin induces rapid and intense euphoria by binding to opioid receptors in the brain. As well, heroin can be smoked, snorted, or injected, and its effects are felt almost instantly, making it appealing to addicts who seek immediate relief and tramadol is increasingly used between manual workers, drivers to increase productivity and their ability to drive for along period without sleeping.

This result is harmony with **Omu et al.** (2017) study in Kuwait, found that hashish was the most commonly used illicit substance by the teenagers, followed by alcohol. Similarly **Shahin**, **Hamed & Taha**, (2021) stated that more than half of the patients were dependent on heroin. However,

these findings were inconsistent with study conducted by Gemeay, Shama, Abo-Elyzeed & Shalaby, (2019) in Egypt, which showed that tramadol was the first line of substance abuse among patients.

Regarding to the relapse rate, the current study showed that one third of the study sample had three to five times of relapse this result due to loss of support ,social pressures and moment of weak can lost all effort of the patients in treatment trip. This finding agrees with the study done by Kabisa, Biracyaza, Habagusenga& Umubyeyi, (2021) revealed that half of the study sample had two time of replase.

Near to half of the studied patients relapse related to cannot tolerate stop it followed by social problem as social pressures from peers and family conflicts had significant role in increase the tendency to re-use drugs. Social support is a family and social factor that can make people resistant to sociopsychological problems and harms, including drug abuse positive atmosphere at home and a good emotional relationship in the family environment are important factors in preventing the recurrence of drug use.

In contrast to the present study results, **Bashirian**, **Barati**, **Mohammadi**, **Zarnagh& Bagheri**, (2021) revealed that easily access to drug was one of the significant predictors of recurrence.

Most of the studied patients started treatment for one year to less than 3 years this result is agree with **Metwaly et al.**, (2024) Most of the studied patients started treatment for less than 5 years.

6. Conclusion:

This study shows that sex, marital status, level of education, monthly income, area of residence and other socio demographic and clinical data were associated with increase relapse rate. youth age groups are the most vulnerable for drug relapse if there is low educational status of the people then there is high chance of them being involved in drug

use and relapse. If one is involved in some kind of occupation or is busy in some other works, then there are less chances of being involved in drugs abuse and in relapse case there is more chances of breaking the drugs abstinence in the people of occupation other than the jobless/student. There is increased chance by increasing the economic status of the family of the drug user. Higher the economic status provides the greater chances for the drug relapse than the lower economic status.

These features of substance use relapse, as expected, form valuable baseline data will be helpful for determining relapse factors among patients with substance use disorders with more accuracy based on their socio-demographic features. As well as these data can be future trends can be followed and for comparative purposes visà-vis other parts of Egypt, and elsewhere in the world.

7. Recommendations:

Based on the current results the following recommendations are suggested that this study will be helpful for determining relapse factors among patients with substance use disorders with more accuracy based on their socio-demographic features

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