

**Substance Use among Psychiatric
Inpatients in the Institute of Psychiatry-
Ain Shams University Hospitals**

Thesis

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By

Elsayed Mahmoud Ahmed Khalil

M.B, B.Ch.

Supervised by

Prof. Safeya Mahmoud Effat

Professor in Psychiatry

Faculty of Medicine, Ain Shams University

Prof. Afaf Mohammed Abd El-samei

Professor in Psychiatry

Faculty of Medicine, Ain Shams University

Dr. Marwa Adel El Missiry

Lecturer in Psychiatry

Faculty of Medicine, Ain Shams University

Faculty of Medicine

Ain Shams University

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List of Abbreviations

| | |
|-------------------|---|
| ADHD | : Attention-deficit / hyperactivity disorder |
| AIPS | : Alcohol-induced psychotic syndrome, |
| APA | : American Psychiatric Association |
| ASI | : Addiction severity Index |
| ASUIP | : Institute of Psychiatry, Ain Shams University Hospitals |
| AUDADIS-IV | : Alcohol Use Disorder and Associated Disabilities Interview Schedule-DSM-IV Version |
| AUDs | : Alcohol use disorders |
| BD | : Bipolar disorder |
| CATIE | : The Clinical Antipsychotic Trials of Intervention Effectiveness |
| CB | : Cannabinoid |
| CIP | : Cocaine-induced psychosis |
| COGA | : Collaborative Study on the Genetics of Alcoholism |
| DSM-IV | : Diagnostic and Statistical Manual of Mental Disorders |
| DUDs | : Drug use disorders |
| eCBs | : Endocannabinoids |
| FEP | : First-episode psychosis |
| GABA | : Gamma Amino Butyric acid |
| GAD | : Generalized anxiety disorder |
| GPRD | : General Practice Research Database |
| ICD | : International classification of diseases and causes of death |
| MA | : Methamphetamine |
| MDD | : Major depressive disorder |
| MDE | : Major depressive episode |
| MINI | : The Mini-International Neuropsychiatry Interview |

List of Abbreviations (Cont.)

- NCS-R** : The National Comorbidity Survey Replication
- NESARC** : The National Epidemiologic Survey on Alcohol and Related Conditions
- NSDUH** : The National Survey on Drug Use and Health
- PD** : Personality disorder
- SAHMSA** : The Services Administration for Mental Health and Substance Abuse
- SEP** : Socioeconomic position
- SMI** : Severe mental illness
- SUD** : Substance use disorder
- THC** : Tetrahydrocannabinol
- WHO** : The World health organization
- WMHCIDI** : The World Mental Health Survey Initiative Version of the World Health Organization Composite International Diagnostic Interview
- 5HT** : 5-Hydroxytryptamine Serotonin

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Introduction

From time past, the human race has used one substance or the other in order to reduce physical pain or to alter state of consciousness. Virtually, all people have discovered some intoxicants that affect the central nervous system, relieving physical and mental anguish or producing euphoria (*Davison et al., 2004*).

Drug abuse and addiction are major burdens to society; economic costs alone are estimated to exceed half a trillion dollars annually in the United States, including health, crime-related costs, and losses in productivity (*Schulen et al., 2009*).

The nonmedical use of prescription drugs in the United States has received relatively scant attention in the research literature despite the current and relatively high prevalence of this form of illicit drug use. Very little data exist on the characteristics associated with the nonmedical use of prescription pain medication among either U.S. middle or high school students (*Zacny et al., 2003*).

Among patients receiving care from the Veterans Health Administration, death from accidental overdose was found to be associated with psychiatric and substance use disorders. Adjusting for demographic and clinical characteristics, hazard ratios of death by accidental overdose

associated with prior psychiatric and substance use disorder diagnoses ranged from 1.8 to 8.8. Significant associations of non-substance-related psychiatric disorders with risk of death by accidental overdose persisted after additional adjustment for substance use disorders (hazard ratios from 1.2 to 1.8).

Depressive disorders and anxiety disorders other than posttraumatic stress disorder had stronger associations with risk of medication-related overdose death (hazard ratios, 3.02 and 3.07, respectively) than with risk of overdose death related to alcohol or illegal drugs (hazard ratios, 1.89 and 1.23, respectively) (*Bohnert and Ilgen, 2012*).

Psychiatric co-morbidity is an often underestimated problem in substance addicted patients. Although there is a reliable amount of epidemiologic data on this issue. Reports differ in their diagnostic and interview methodology; substantially co-morbid psychiatric disorders are a common finding in opiate- and cocaine-addicted subjects. However, many treatment units diagnostically and therapeutically still focus exclusively on the prevalent substance disorder and detection rates of psychiatric co morbidity are low (*Hu et al., 2006*).

Swartz et al.,(2006) found that among patients with a first psychotic episode, 19.5% used drugs during the year preceding the psychotic episode. In the large-scale CATIE

study, of the 1460 participants, 23% used substances and 37% had a substance use disorder. Co morbidity of mental illness and substance misuse is a significant problem both in the general and in clinical populations. Such co-occurring problems are associated with poorer treatment outcomes both for patients in substance abuse treatment and in mental health treatment (*Curran et al., 2002*).

Where the consequences include lower medication adherence, higher re-hospitalization and emergency room visits, homelessness, criminality and violence, suicide attempts, increased fluctuation and severity of psychiatric symptoms, legal problems, family stress, HIV/HCV infection, and early attrition from treatment. Moreover, co morbid DSM-IV disorders are more severe and chronic than single disorders (*Buckley and Brown, 2006*).

One of the overarching issues in the area of co-morbidity is the nature of the connection between psychiatric disorders and substance use disorders. The rapid development of technical advances in the neurosciences has led to a better understanding of the molecular biology, neurotransmitter systems, and neural circuitry involved in mental illness and substance use disorders. The authors discuss the neurobiological interface between substance use disorders and other psychiatric disorders with an emphasis on

emerging data concerning four psychiatric disorders that commonly co-occur with substance use disorders: depression/mood disorders, posttraumatic stress disorder, attention deficit hyperactivity disorder, and schizophrenia (*Brady and Sinha, 2005*).

Aim of the Work

- 1-To estimate the prevalence of substance use in a sample of hospitalized psychiatric patients.
- 2-To demonstrate the different demographic data and its correlation to substance use disorder.
- 3- To compare the groups of patients with a dual diagnosis to the group of mental patients without substance use regarding to demographics and different clinical correlates

Rationale of the work

At least 9 percent of Egyptian population -amounting to eight million people - tried drugs at least once in lifetime, while current prevalence estimates for substance dependence disorder range from 1.2%to 1.9% (*Ezzat et al., 2006*). Several researches have studied the prevalence of substance abuse disorder, yet study of substance abuse disorder in psychiatric inpatient has received limited research attention, also the correlations between substance abuse disorder and major mental problems are far from clear.

Hypothesis

We hypothesise that there is high prevalence rate of substance abuse among hospitalized psychiatric patients.

Chapter (1): **Substance use disorder**

Definition

Drug dependence is the repeated use of a drug or chemical substance with or without physical dependence. Psychological dependence indicates an altered psychological state due to repeated administration of a drug, the cessation of which result in withdrawal syndrome (*Sadock & Sadock., 2005*). Addiction has well recognized cognitive, behavioral, and physical characteristics that contribute to continued use of drugs despite the harmful consequences (*Butzin et al., 2005*).

Prevalence

Problems of substance abuse produce dramatic costs for all societies in the term of low productivity, transmission of infectious diseases, family and social troubles as well as crimes (*Mc Lellan et al., 2003*). The United Nations Office for Drug Control and Prevention estimates that some 180 million people used illicit drugs in 1990s. the global rates of substance use disorder according to World Mental Health Initiative that has conducted population-based surveys in more than 22 countries, the lifetime prevalence rates of substance use disorders across 18 participating countries ranged from a low of 1.3 (Italy) to high of 15.0 (Ukraine), with a median of 7.0 as shown in (**table 1**) (*Kessler et al., 2007*).