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

Thesis

Submitted for the partial fulfillment of a master degree in Neuropsychiatry

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
Cairo, 2015

Acknowledgement

It is an honor for me to carry out this work under the supervision **Prof. Dr. Safeya Effat,** Chairperson of the Neuropsychiatry Department and professor of Psychiatry, Faculty of Medicine, Ain Shams University. Without her enthusiastic support and encouragement, this work would have never been completed. My deepest thanks for her guidance and advice regarding every step of this research.

No words can ever express my feelings of gratefulness towards **Prof. Dr. Afaf Abd El-samei**, Professor of Psychiatry, Ain Shams University. I really learned a lot from her supervision and I wish to express my deepest appreciation for her valuable support all over the research period.

My sincere gratitude and great thanks are addressed to Dr. **Marwa El Missiry,** Lecturer of Psychiatry Faculty of Medicine Ain-Shams University, for her generous support and stimulating suggestions throughout this work.

El-Sayed Khalil

List of Contents

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

List of Tables

List of Tables *(Cont.)*

List of Figures

List of Figures

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 hypothise 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).***