# Gender Differences in Clinical and Sociodemographic Pattern of Substance Use Disorder

#### Thesis

Submitted for partial fulfillment of Master degree in Psychiatry

Presented by

Fatma Mohamed Nabil Ezzat

(M.B.B.Ch)

Under the supervision of

# Dr. Mahmoud Mamdouh Elhabiby

Assistant Professor of Psychiatry
Faculty of Medicine-Ain Shams University

## **Dr. Hanan Hany Elrassas**

Assistant Professor of Psychiatry Faculty of Medicine-Ain Shams University

#### Dr. Mahmoud Hassan Ali Morsi

Lecturer of Psychiatry
Faculty of Medicine-Ain Shams University

Faculty of Medicine Ain Shams University **2018** 



# Acknowledgments

First and foremost, I feel always indebted to **Allah**, the Most Beneficent and Merciful. I can do nothing without Him.

I would like to express my profound gratitude and sincere appreciation to **Dr**. **Mahmoud Mamdouh Elhabiby**, Assistant Professor of Psychiatry, Faculty of Medicine-Ain Shams University, for his great assistance and valuable advice which were indeed helpful to accomplish this work. I really have the honor to complete this work under his supervision.

My deepest and sincere thanks to **Dr. Hanan Hany Elrassas**, Assistant Professor of Psychiatry, Faculty of Medicine-Ain Shams University, for her support, follow up and solution of the intractable problems which have faced this work.

Last but not least, I can't forget to thank Dr. Dr. Mahmoud Hassan Ali Morsi, Lecturer of Psychiatry, Faculty of Medicine-Ain Shams University, for the efforts and time he has devoted to accomplish this work.

Finally, I would like to thank and appreciate all members of my family, specially my **Parents**, my **Husband** and my little **daughter** for the efforts and sacrifices they made.

Never forget to thank all our patients who participated in the study and were the cornerstone of the whole work.

🔼 Fatma Mohamed Nabil Ezzat

# **List of Contents**

| Subject                                      | Page No. |
|--|----------|
| List of Abbreviations                        | •••••    |
| List of Tables                               | ii       |
| List of Figures                              | iii      |
| Introduction                                 | 1        |
| Aim of the Work                              | 3        |
| Review of Literature                         |          |
| Substance use disorder                       | 4        |
| Social demography and Substance Use Disorder | r19      |
| Clinical pattern and SUD                     | 26       |
| Gender difference and substance use disorder | 31       |
| Subjects and Methods                         | 45       |
| Results                                      | 52       |
| Discussion                                   | 75       |
| Summary                                      | 85       |
| Conclusion                                   | 89       |
| Recommendations                              | 90       |
| References                                   | 92       |
| Arabic Summary                               | ·····    |

#### **List of Abbreviations**

# Abbr. Full-term

**ADHD** : Attention deficit hyperactivity disorder.

**APA** : American Psychiatric Association.

**AUD** : Alcohol use disorder.

**CDC** : Centers of Disease control and prevention.

**CUD** : Cannabinoids Use Disorder.

**DALYs**: Disability-adjusted life years.

**dMSNs** : Direct pathway striatal neurons.

**DSM** : Diagnostic and statistical manual of mental

disorders.

**EMR** : Eastern Mediterranean Region.

**HCV** : Hepatitis c virus.

**HICs** : High-income countries.

**HUD** : Heroin Use Disorder.

**ICD** : International classification of disease.

**iMSNs** : Indirect pathway striatal neurons.

**LMICs**: Low and middle income countries.

**MDA** : Methylene-dioxyamphetamine.

**MDMA** : Methylene-dioxymethamphetamine related disorder.

**NIDA** : National Institute of Drug Abuse.

**NIH** : National institution of health.

**NSDUH** : National Survey on Drug Use and Health.

**NHSDA** : National Household Survey on Drug Abuse.

**PFC**: Prefrontal cortex.

**SAMHSA**: Substance abuse and mental health service

administration.

**SD** : Standard deviation.

**SDs** : Synthetic drugs.

**SMR** : Standardized mortality ratio.

**SUD** : Substance use disorders.

**TED** : Treatment episode data set.

**TUD** : Tramadol Use Disorder.

**USDHHS**: United States Department of Health and

Human Services.

**WHO** : World Health Organization.

# **List of Tables**

| Table No.          | Title  | Page No. |
|--------------------|--|----------|
| <b>Table (1):</b>  | Fundamental ICD/DSM difference   | 6        |
| <b>Table (2):</b>  | The difference between criteria of d in DSM5 and ICD10                       | •        |
| <b>Table (3):</b>  | Comparison between male and according to socio-demographic da                |          |
| <b>Table (4):</b>  | Comparison between male and according to SCID2                               |          |
| <b>Table (5):</b>  | Comparison between male and according to ASI                                 |          |
| <b>Table (6):</b>  | Comparison between male and according to setting of service in the interview | day of   |
| <b>Table (7):</b>  | Comparison between male and according to type of substance                   |          |
| <b>Table (8):</b>  | Comparison between male and according to duration of substance               |          |
| <b>Table (9):</b>  | Comparison between male and according to intake days/ last 30D.              |          |
| <b>Table (10):</b> | Comparison between male and according to type of illegal problem             |          |
| <b>Table (11):</b> | Comparison between male and according to abuse.                              |          |
| <b>Table (12):</b> | Comparison between male and according to chronic illness                     |          |

| List o | f 6 | 7abl | les |
|--------|-----|------|-----|
|--------|-----|------|-----|

| <b>Table</b> (13): | Comparison according to   |  |  | . 72 |
|--------------------|---------------------------|--|--|------|
| <b>Table (14):</b> | Comparison according to s |  |  | . 73 |

# **List of Figures**

| Figure No.          | Title  | Page No. |
|---------------------|--|----------|
| Figure (1):         | Functional changes in addict brai                              | n 11     |
| <b>Figure (2):</b>  | Areas of the Human Brain the Especially Important in Addiction |          |
| <b>Figure (3):</b>  | Progression of alcohol depe                                    |          |
| <b>Figure (4):</b>  | Simplified schematic view of inputs and outputs                |          |
| <b>Figure (5):</b>  | Bar chart between male and according to age (years)            |          |
| <b>Figure (6):</b>  | Bar chart between male and according to state of marriage      |          |
| <b>Figure (7):</b>  | Bar chart between male and according to education              |          |
| <b>Figure (8):</b>  | Bar chart between male and according to occupation             |          |
| <b>Figure (9):</b>  | Bar chart between male and according to SCID2.                 |          |
| <b>Figure (10):</b> | Bar chart between male and according to type of treatment se   |          |
| <b>Figure (11):</b> | Bar chart between male and according to type of substance      |          |
| <b>Figure (12):</b> | Bar chart between male and according to duration of substance  |          |
| <b>Figure (13):</b> | Bar chart between male and according to intake days/ last 30   |          |

| <b>Figure</b> (14): | Bar chart between male and female according to type of illegal problem    | 69 |
|---------------------|---|----|
| <b>Figure (15):</b> | Bar chart between male and female according to abuse.                     | 70 |
| <b>Figure</b> (16): | Bar chart between male and female according to chronic illness            | 71 |
| <b>Figure (17):</b> | Bar chart between male and female according to source of money for drug   | 73 |
| <b>Figure (18):</b> | Bar chart between male and female according to seeking traditional healer | 74 |

#### **Abstract**

**Background:** Substance use disorder (SUD) is a significant public health concern and is one among the most common psychiatric disorders beginning in young adulthood. The history of substance abuse is as old as mankind itself; recently it has become a global problem that is influenced by social, economic, political, and psychosocial factors, scientist have long noted an association between social relationships and health. Aim of the Work: to analyze and discuss similarities and difference between the genders in substance use disorder, highlighting severity of substance use disorder in both male and female focusing on comorbidity of substance use disorder in both male and female. Subjects and methods: This cross sectional descriptive study was conducted on a sample of 117 addict patient (39 f and 78 m) who seek a treatment in Egyptian psychiatric hospitals. The Sample was collected from inpatient and outpatient department of Ain Shams Psychiatric hospital, Heliopolis (Almatar) Psychiatric Hospital and Alabasseya Psychiatric hospital. Results: the study revealed a statistically significant difference in various parameters as the mean age of abuse was higher among men than women with longer duration of life time and last 30 days intake compared to females. As regard marital status, married men percentage was lower in comparison to females who had a higher percentage of divorces. Regarding educational level, more females completed primary level but more males completed to tertiary diploma and higher percentage compared with females. Males abuse was more physically and emotionally but females exposed to more sexual abuse. Legal problems were higher in males as violation and drug charge compared to the females. On the other hand, job and dealing drugs as a source of money for drugs were mainly in males but females gained money mainly from the family or prostitution. Men showed higher rates of HCV infection than female. Conclusion: there is a clear difference between men and women in many of the points covered in this study, which confirms that there must be different programs developed specifically for women and not as sometimes happens by the application of treatment programs addiction to men, which leads to the consequences of unsatisfactory For female patients as well as those involved in the treatment of addiction.

**Key words:** gender differences, clinical pattern, sociodemographics, substance use disorder

#### Introduction

The essential feature of a substance use disorder is a cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continue using the substance despite significant substance-related problem, Substance use disorder occur in a broad range of severity, from mild to severe, with severity based on a number of symptoms criteria endorsed (*DSM-5*, *2013*).

Clinicians and program administrators are increasingly aware of the important differences between men and women with regard to the physical effects of substance use and the specific issues related to substance use disorders. They are also recognizing that these differences have an impact on treatment—that gender does make a difference. When women's specific needs are addressed from the outset, improved treatment engagement, retention, and outcomes are the result (SAMSHA, 2009).

Gender differences in rates of substance abuse have been consistently observed in the general population and treatment-seeking samples, with men exhibiting significantly higher rates of substance use, abuse, and dependence (*Compton et al.*, 2007); (*Kessler et al.*, 2005); (*Grucz et al.*, 2008). However, recent epidemiologic surveys suggest that this gap between men and women has narrowed in recent decades.

Women addiction is a raising problem in Egypt regarding to the study done as the fourth phase of the National Addiction Research Program (*Hamdi et al.*, 2013).

### **Aim of the Work**

The aim of this project is:

- To analyze and discuss similarities and difference between the gender in substance use disorder.
- To highlight severity of substance use disorder in both male and female.
- To highlight comorbidity of substance use disorder in both male and female.

# Chapter 1 Substance use disorder

lobally, both the range of drugs and drug markets are expanding and diversifying as never before. The findings of World Drug Report 2018 make clear that the international community needs to step up its responses to cope with these challenges, and highlights the importance of gender- and age-sensitive drug policies, exploring the particular needs and challenges of women and young people. Moreover, it looks into increased drug use among older people, a development requiring specific treatment and care (*Drug report*, 2018).

Substance-related disorders are not limited to any particular country or world region, for example, in the Eastern Mediterranean Region (EMR), drug use disorders is common and accounting for a loss of 4 disability-adjusted life years (DALYs) and 9 deaths per 1000 population, compared with the loss of 2 DALYs and 4 deaths per 1000 population (*Waleed*, 2014).

Focusing on Egypt during the last few decades, and to be more specific during the past five decades, the changes that have affected the Egyptian society from socio-economic changes and the low level of awareness among the Egyptians