



# **Differences in Patterns of Substance use between Cairo and Aswan**

Thesis

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Master Degree in Neuropsychiatry*

By

**Ahmed Mekky Kassem Mekky**

Under Supervision of

**Prof. Dr. Ahmed Saad Mohamed**

*Professor of Neuropsychiatry  
Faculty of Medicine - Ain Shams University*

**Assist. Prof. Dr. Mahmoud Mamdouh Elhabiby**

*Assistant Professor of Neuropsychiatry  
Faculty of Medicine - Ain Shams University*

**Assist. Prof. Dr. Nesreen Mohamed Mohsen**

*Assistant Professor of Neuropsychiatry  
Faculty of Medicine - Ain Shams University*

Faculty of Medicine - Ain Shams University

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

# قَالَ

سُبْحَانَكَ لَا عِلْمَ لَنَا  
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ  
الْعَلِيمُ الْعَظِيمُ

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## INTRODUCTION

Substance abuse has reached epic proportions with one in ten individuals reporting the use of substances (*National Institute on Drug Abuse; NIDA, 2015*). However, depending upon the source, estimates of substance use disorder vary widely, and definitions within the field are constantly evolving. While differences in statistics may be a function of the population being examined, the stigma of reporting, the type of drug under study, or how use is defined, the statistics highlight that rates of use have been rising over time. There is no one portrait of a person with an addiction disorder, as addiction has the potential to span every age, gender, ethnicity, religion, and socioeconomic bracket (*National Institute on Drug Abuse; NIDA, 2015*).

Drug addiction is the biggest pain the society has come across. It is confined not to any one country or region alone but widely afflicted the globe. Today, no part of the world is free from the pain of drug addiction. Recorded history indicates that drugs were used not just for presumed therapeutic effects and for recreational purposes to enhance pleasure and relieve stress. The fast changing social milieus, social sanctions and other factors are mainly contributing to proliferation of the drug's use and has posed a serious challenge to individuals, families, societies and Nations (*Ramakrishna et al., 2005*) and (*Rajeswari and Maheswari, 2019*)

## What Defines a Drug?

A drug can be defined under many different standards. The most common definition is that a drug is any substance used as a medication or another substance used for the preparation of a medication (*MacMillan and Sisselman-Borgia, 2018*)

In the United States per *the 1938 Food, Drug, and Cosmetic Act*, a drug is defined as

- (1) A substance recognized in an official pharmacopoeia or formulary;
- (2) A substance intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease;
- (3) A substance other than food intended to affect the structure or function of the body; and/or
- (4) A substance intended for use as a component of a medicine but not a device or a component, part, or accessory of a device (*Public Law, 1938*).

Drugs are typically classified into classes or groups of related drugs that have

- (a) Similar chemical structures,
- (b) The same mechanism of action, and

- (c) A related mode of action and/or are used to treat the same disease (*Mahoney & Evans, 2008*).

However, no single classification system can meet all needs as one drug may cross over different classifications and effect a variety of systems within the body. Psychoactive drugs (also called psychotropics) are one class of drugs. Psychotropics are those substances that affect the function of the central nervous system by altering perceptions, thinking process, mood or consciousness, and subsequently alter behavior. These include sedative-hypnotics (depressants), stimulants, opiates (depressants with analgesic capability), anesthetics (depressants that include phencyclidine/PCP, ketamine, and nitrous oxide), and psychedelics (including consciousness expanding and ego-fragmenting effects) (*MacMillan and Sisselman-Borgia, 2018*)

Psychoactive substances typically bring about subjective changes in cognition, awareness, and mood that the user finds rewarding and pleasant. Not all of these changes may be objectively observed, but are more subjective in nature from the individual using the drug. It is important to clarify that only psychoactive drugs that affect the pleasure center in the brain (the mesolimbic dopamine system or MDS) have addictive potential. Drugs such as antidepressants, neuroleptics, lithium, mood stabilizers, and anticonvulsants do not affect the MDS and hence lack this ability (*MacMillan and Sisselman-Borgia, 2018*)

## **RATIONALE OF THE STUDY**

Aswan use of substance is different from Cairo in substances, habits, culture and motives. Epidemiological data on drug dependence in Aswan are still few and not properly investigated.