



Suicide Probability Among Tramadol Addicts.

Thesis

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By

Ayat Ullah Mazloun Mahmoud

MB, BCh Ain Shams University

Under Supervision of

Prof. Dr. Ahmed Saad Mohamed

Professor of Psychiatry

Faculty of Medicine - Ain Shams University

Dr. Nesreen Mohammed Mohsen

Assistant Professor of Psychiatry

Faculty of Medicine - Ain Shams University

Dr. Lobna Abu Bakr Ismail

Lecturer of Psychiatry

Faculty of Medicine - Ain Shams University

Faculty of Medicine - Ain Shams University

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

لَسْبَحَانَكَ لَا يَلْمُ لَنَا
إِلَّا مَا عَلِمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

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✍ Ayat Ullah Mazloum Mahmoud

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ABSTRACT

Background: The magnitude of the problem of substance use in Egypt has been growing lately. Substance use disorders have been associated with depression and suicide, as well as impulsivity and specific personality traits. Suicide is closely linked to the substances use. Therefore it is very important to confirm the factors that affect the possibility of suicide.

Aim of the Work: This study aimed at evaluating suicide risk and its correlation with each of personality disorders and severity of addiction in a sample of 72 tramadol addicts from outpatient clinic of Institute of psychaitry Ain Shams University hospitals.

Patients and Methods: This is a descriptive Cross sectional study conducted in outpatient clinic of Institute of psychaitry Ain Shams University hospital. The present study aimed at analyzing the demographic data of 72 tramadol addicts, over six months period from January 2018 to August 2019. The severity of the addiction problem among those patients was assessed using Addiction Severity Index (ASI), suicidal probability was assessed using suicide probability scale (SPS), Structured Clinical Interview for DSM-VI Axis II (SCID-II) for assessing personality disorders and Structured Clinical Interview for DSM-IV Axis I Disorders (SCID I).

Results: The results showed that 32 (44.44%) of the patients had a risk of suicide probability. Also there was a statistically significant difference between risk of suicidal probability and personality disorders especially antisocial personality. It was found that the need for more power for work and pleasurable effects were the most risk factors for tramadol addiction.

Conclusion: Suicide probability was found to be (44.44%) among the studied tramadol addicts. The risk of suicide probability among them was found to be significant in each of the following: antisocial personality disorder, longer duration of addiction, being single and positive family history of addiction.

Attention should be paid to include the assessment of suicidal risk as part of routine assessment of addicts.

Keywords: Tramadol, addicts, suicide.

INTRODUCTION

The magnitude of the problem of substance use in Egypt has been growing lately. Substance use disorders (SUDs) have been associated with depression and suicide, as well as impulsivity and specific personality traits (**Shahin et al., 2018**).

Addiction specialists frequently find themselves faced with suicidal behavior in their addictions patients, up to 40% of patients seeking treatment for substance dependence report a history of suicide attempt(s). (**CDC, 2013**).

Alcohol, cocaine, and opiate dependent suicide attempters also show higher ratings of personality traits such as introversion and neuroticism compared to substance dependent patients who did not attempt suicide. (**Roy. 2014**).

Among all used drugs, tramadol, a centrally acting analgesic, was the most heavily used illicit drug in the last decade, considered by some as youth plague not only in Egypt but also in the neighboring. According to the Ministry of Health report on drug addiction in Cairo, 1.4 million people were addicted to drugs, particularly heroin and/or tramadol (**Bassiony et al., 2018**).

United Nation reported that middle east and north Africa regions were among highest areas of tramadol/opiate abuse over the world (**Farag et al., 2018**).

Worldwide, more than 1 million people commit suicide every year. In 2010, over 38 thousand suicides were reported in the United States at a case rate of 12.1 suicides per 100,000 and over one million attempted suicide. (**Yuodelis-Flores S and Ries RK, 2015**).

The link between the risk of suicide and SUD is well documented (**Phillips et al., 2012**). Li and collaborators (**Li et al., 2011**) showed that the risk of suicide was 7.5 times higher in males and 11.7 times higher in females with a mental or SUD compared to males and females with no disorder. In another recent study among the SUD population, (**Masferrer et al., 2015**) found that 61.2% of 196 bereaved SUD patients reported a risk of suicide in a large study focused on describing related variables of risk of suicide among bereaved addicted patients.

Among all used drugs, tramadol, a centrally acting analgesic (**Grond and Sablotzki, 2004**), was the most heavily used illicit drug in the last decade, considered by some as “youth plague” not only in Egypt but also in the

Introduction

neighboring countries (**Fawzy, 2010**). According to the Ministry of Health report on drug addiction in Cairo, 1.4 million people were addicted to drugs, particularly heroin and/or tramadol (**Viney, 2017**).[.](#)

The ascending trend of drug abuse in developing countries is evident, and this can lead to economic, cultural, social, and health challenges for individuals and societies. Drug abuse is one of the most important and preventable diseases in the world today (**O.Mehrpour et al., 2013**).

AIM OF THE WORK

1. To detect suicidal probability among Tramadol addicts.
2. To relate severity of addiction to probability of suicide.
3. To relate type of personality disorder to probability of suicide.

Chapter 1

OVERVIEW ON TRAMADOL ADDICTION

Drug use disorders are associated with substantial burden through impairment in major life roles and increased risk for suicidality, neuropsychological deficits, diminished quality of life, and infectious disease (eg, human immunodeficiency virus and hepatitis). As well as conferring substantial burden on families, social networks, and society as a whole through violent and property crime, poverty, and homelessness **(Yuodelis-Flores & Ries, 2015)**.

Abuse of illicit drugs is not confined to a particular society. As maintained by the United Nations Office on Drugs and Crime in 2009, the number of users of several drugs was assessed approximately 149 to 279 million people **(Mohammadpoorasl et al., 2014)**.

There is growing abuse of tramadol in some African and West Asian countries, as evidenced by recent large seizures of such preparations in North and West Africa. Abuse of tramadol has become a serious problem in Egypt and abuse has also been reported by Iran, Jordan, Lebanon, Libya, Mauritius, Saudi Arabia and Togo **(WHO, 2014)**.

Arab countries, like other regions in the world, face several future health challenges particularly those pertaining to psychiatry and mental health problems such as substance-related disorders. No doubt that political instabilities, social pressure and insecurity are creating an uncomfortable atmosphere that leads to several psychiatric problems in Arab countries (**Okasha et al., 2012**).

Studies from Arab countries have reported a wide variety of substances and medications being abused. For example, abuse of tramadol in Egypt and other Middle Eastern countries have reached an alarming limit (**Fawzy., 2010**).

Abuse of tramadol has been reported to be a serious problem in Egypt during 2011 and 2012. Information available to the International Narcotics Control Board (INCB) suggest that tramadol was smuggled into Egypt from China and India (**WHO, 2018**).

Tramadol is a very popular street drug in Cairo with an estimated 5 billion pills available for use (**United Nations Office for Drugs and Crime, 2014**).

A study carried out in Egypt found that patients with substance dependence had a significantly worse overall quality of life than the WHO standards (Said., 2012).

Opioids are classified into four categories (CDC, 2015):

Natural opioids: (including morphine and codeine) and **semi-synthetic opioids** (drugs like oxycodone, hydrocodone, hydromorphone, and oxymorphone)

Methadone: a synthetic opioid

Synthetic opioids: other than methadone (drugs like tramadol and fentanyl)

Heroin: an illicit (illegally made) opioid synthesized from morphine that can be a white or brown powder, or a black sticky substance.

Definition Of Addiction:

Addiction is a complex condition, a brain disease that is manifested by compulsive substance use despite harmful consequence. People with addiction (severe substance use disorder) have an intense focus on using a certain substance(s), such as alcohol or drugs, to the point that it takes over their life. They keep using alcohol or a drug even when they know it will cause problems. Yet a number of

effective treatments are available and people can recover from addiction and lead normal, productive lives (**American Psychiatric Association, 2017**).

Another definition of addiction states that it is a chronic disease of brain reward, motivation, memory and related circuits. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors. Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one's behaviors and interpersonal relationships, and a dysfunctional emotional response. Like other chronic diseases, addiction often involves cycles of relapse and remission. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death (**American Society Of Addiction Medicine, 2011**).

Addiction is not a specific diagnosis in the fifth edition of The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) - a diagnostic manual for clinicians that contains descriptions and symptoms of all mental disorders classified by

the American Psychiatric Association. However, Substance use disorder in DSM-5 combines the DSM-IV categories of substance abuse and substance dependence into a single disorder measured on a continuum from mild to severe. Each specific substance is addressed as a separate use disorder (e.g, alcohol use disorder, stimulant use disorder, etc.) (**National Institute On Drug Abuse, 2018**).

Tramadol:

Tramadol HCl is a centrally acting synthetic opioid analgesic used in the treatment of moderate to severe pain. It has a low affinity to opioid receptors and inhibits the reuptake of norepinephrine and serotonin. Its analgesic effect is partially blocked by naloxone (**Dayer P et al., 2007**).

Tramadol is believed to exert analgesic effect by binding the μ -opioid receptors and modulating the noradrenergic, GABAergic and serotonergic systems, or by acting as a serotonin–norepinephrine reuptake inhibitor (**Kimura et al., 2012**).

It is rapidly absorbed and the onset of pain relief occurs within one hour after oral ingestion. Within the liver, tramadol is metabolized into O- and N-demethylated five different metabolites via the action of cytochrome P450.