Relative Risk of Mental Disorders and Suicidal Attempts: a Study of suicide Attempters Presented at Ain Shams University Hospital, Psychiatry Department, Cairo

Thesis

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Mai Seif El Din Ahmed Abd El Baky Abdeen

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List of Abbreviations

Abbr.	Title
AN	: Anorexia nervosa
APA	: American Psychiatric Association
ASPD	: Antisocial personality disorder
AUD	: Alcohol use disorder
BAD	: Bipolar affective disorder
BIS	: Barratt impulsivity scale
BPD	: Borderline personality disorder
BSIS	: Beck's Suicidal intent scale
CBT	: Cognitive behavioral therapy
CDC	: Centers for Disease Control and Prevention
CSF	: Cerebrospinal fluid
DBT	: Dialectical behavioral therapy
DSM-IV	: Diagnostic and Statistical Manual of Mental Disorders, 4th Edition
DZ	: Dizygotic
ECA	: Epidemiologic catchment area
ECT	: Electroconvulsive therapy
ED	: Eating disorder
EMR	: Eastern Mediterranean region
FDA	: Food and Drug Administration
FH	: Family history
GAD	: Generalized anxiety disorder
MAO	: Monoamine oxidase A

MDD : Major depressive disorder
MDE : Major depressive episode
MZ : Monozygotic
N : Number
NCS : National comorbidity survey
NESARC : National Epidemiologic Survey on Alcohol and Related Conditions
NMDA : N-methyl-D-aspartate
OCD : Obsessive-compulsive disorder
OPC : Outpatient clinic
PDs : Personality disorders
PFC : prefrontal cortex
PH : Past history
PTSD : Post traumatic stress disorder
RCTs : Randomized controlled trials
SA : Suicide attempt
SCID I : Structured Clinical Interview for DSM-IV Axis I Disorders
SCID II : Structured Clinical Interview for DSM-IV Axis II Disorders
SD : Standard Deviation
SI : Suicidal ideation
SLEs : Stressful life events
SMR : Standard Mortality Ratios
SPS : Suicide probability scale
SPSS : Statistical package for Social Science
SRB : Suicide related behavior
SRRS : Social Readjustment Rating scale
SSRI : Selective serotonin reuptake inhibitors

SUD : Substance use disorder

TPH : Tryptophan hydroxylase

USA : United States of America

WHO : World Health Organization

WMHS : World Mental Health Surveys

5-HIAA : 5-hydroxyindoleacetic acid

5-HT : Serotonin

5-HTT : Serotonin transporter

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Introduction

Suicide is among the leading causes of death and disease burden around the world ***(WHO, 2008).***According to the World Health Organization (WHO)'s global report on violence and Health (2002), someone commits suicide every 40 seconds, and 1 attempt is made every 1 to 3 seconds ***(Kruget al., 2002).*** By 2020, these figures may have risen to 1 death every 20 seconds and 1 attempt every 1 - 2 seconds ***(Du Toit et al., 2008).***Estimates suggest that there are more than 20 to 50 million suicide attempts worldwide, leading to 1 million deaths by suicide annually (greater than the mortality rate due to war and homicide combined) ***(Saberi-Zafaghandiet al., 2012).***Based on a WHO report, suicide is the 13th cause of death in the world and the 3rd cause of death in the age group 15–34 years. These data clearly indicate that suicide is a serious public health problem ***(SUPRE, 2012).***

According to ***WHO (2003)*** report only a few number of suicide are from countries outside western world, especially from Muslim countries. A variety of social, legal, and religious factors, make reporting and data collection on suicide and nonfatal suicidal behaviors, difficult.

The crude rate of suicide attempts in Cairo was found to be 38.5 per 100.000. There was a high percentage in the age group 15–44 years, with no major difference between the genders. Depressive illnesses, hysterical reactions and

adjustment disorders (in that order of frequency) were the main causes of the attempt ***(Okasha & Lotaief, 1979).*** A study in 1981–1982 showed that 31% had made previous non-serious attempts. Dysthymic disorders, adjustment, affective and personality disorders were the most common diagnoses encountered ***(Okasha et al., 1986).***

The term Suicide is defined as self-inflicted death with evidence that the person intended to die according to the American Psychiatric Association (APA) practice guidelines ***(Skegg, 2005).***If one does not succeed in ending one's life, the attempt constitutes non-fatal suicide. Non-fatal suicides can be categorized into two groups: Attempted suicide – not failing deliberately; in other words, those who intended to take their own lives and wished to die. Parasuicide – failing deliberately; i.e. those who made impulsive suicidal gestures, either as a punitive gesture or to draw attention to themselves or to their plight ***(Du Toit et al., 2008).***

Extensive research has examined risk factors for suicide, and several studies have identified a history of prior suicide attempts as a very strong predictor of suicide risk ***(APA, 2003).*** Improved accuracy in the evaluation of risk after a suicide attempt, that is why, is important. The risk of suicide after an unsuccessful attempt is around 10% over follow-up of 5-35 years. Characteristics of attempted suicide, such as being well planned, or violent, might imply a higher risk of a later successful attempt ***(Runeson et al., 2010).***

Certain socio-demographic characteristics have also been associated with high suicide risk. These include male gender, European-American ethnicity, marital disruption, unemployment, living alone, a recent migration, early parental deprivation, family history of suicidal behavior, poor physical health and stressful life events ***(Hussain et al., 2009).***

Additional risk factors include the presence of a psychiatric disorder. Studies have found that up to 90% of individuals who present with self-harm meet diagnostic criteria for psychiatric disorders. The most common is depression, followed by substance use disorders and anxiety disorders ***(Skegg, 2005).*** Individuals with antisocial and borderline personality disorders exhibit high rates of self-harming behaviors. Eating disorders, schizophrenia and posttraumatic stress disorder have also had been found in study samples of self-harmers ***(Skegg, 2005).***

The results from WHO Surveys on data on the lifetime presence and age-of-onset of mental disorders and nonfatal suicidal behaviors show that, overall, mental disorders were equally predictive in developed and developing countries. However, with a key difference being that the strongest predictors of suicide attempts in developed countries were mood disorders, whereas in developing countries impulse-control, substance use, and posttraumatic stress disorder were most predictive ***(Nock et al., 2009).***