

## SHORT REPORT

# Psychiatric characteristics of 100 nonviolent suicide attempters in Hungary

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### Abstract

**Background.** Previous international and Hungarian studies have shown that around 90% of persons making suicide attempts had at least one current mental disorder. The aim of this study was to investigate the current prevalence of DSM-IV Axis I psychiatric diagnoses among nonviolent suicide attempters in Budapest, Hungary. **Methods.** Using a structured interview (Mini International Neuropsychiatric Interview) determining DSM-IV Axis I diagnoses, the authors examined 100 consecutively contacted nonviolent suicide attempters (68 females and 32 males), aged between 14 and 66 (mean: 36.3 years). **Results.** A total of 64% of the subjects were repeated attempters, and the most common method was drug overdose (96%), in 21% of cases in combination with alcohol ingestion. A total of 92% of the attempters had at least one current DSM-IV Axis I psychiatric diagnosis. In 87% it was depressive disorder (59% unipolar major depression, 14% bipolar II depression and 12% bipolar I depression, 2% dysthymic disorder), in 46% anxiety disorders, in 27% substance-use disorder and in 2% psychotic disorder. Sixty percent of the attempters received two or more current Axis I diagnoses (35% depressive + anxiety disorder only, 15% depressive + substance-related disorder only, and 10% depressive + anxiety + substance-related disorder). **Limitations.** Nonviolent suicide attempters are not representative of all persons with attempted suicide and subthreshold Axis I diagnoses were not investigated. **Conclusion.** This study supports previous international and Hungarian findings on the high prevalence and comorbidity of Axis I mental disorders among persons with recent nonviolent suicide attempt.

**Key Words:** *Axis I diagnoses, comorbidity, drug-overdose, nonviolent suicide attempt*

### Introduction

Attempted suicide is the most powerful predictor of future completed suicide, particularly in the presence of untreated major mood disorders [1–7]. In spite of the fact that suicidal behaviour is a very complex, multicausal phenomenon, international and Hungarian studies show that around or over 90% of persons who commit or attempt suicide have at least one current major mental disorder, most frequently major depressive episode (56–87%), substance-related disorders (26–65%), and schizophrenia (6–13%). Comorbid anxiety and personality disorders are also frequently present, but they are quite rare as a principal (or only) diagnosis [2,3,5,8–14].

The aim of the present study was to investigate the prevalence of current DSM-IV Axis I mental

disorders among persons who had attempted nonviolent suicide in Budapest, Hungary, in a country with recently declining, but still high suicide mortality [15].

### Subjects and methods

The study population was a consecutively contacted and investigated series of 104 individuals who were admitted to the central “suicide emergence unit” of Budapest (Department of Internal Medicine and Clinical Toxicology, Elizabeth Hospital and Outpatient Clinic, Budapest). This is a department treating patients after drug overdosing or poisoning. Each subject included into this investigation provided written informed consent after being fully informed of the goal and nature of the study that

received ethics approval from the local ethics review board. Suicide attempters were defined as subjects admitted because of deliberate acts of self-injury with intention to die. The decision about the presence of suicide intent was made by the admitting doctors and confirmed later by an independent psychiatrist. The subjects were interviewed in the hospital within 24–72 hours after their admission. Patients with severe (unstable) medical condition were not interviewed. In total, 104 patients were contacted, four of them (including one young man with clear paranoid psychosis) refused to participate, therefore we have a complete data-set for 100 consecutively contacted and screened attempters.

A structured interview according to DSM-IV, the Mini International Neuropsychiatric Interview was administered to determine Axis I psychiatric diagnoses [16,17]. The interviews were performed by a trained resident in psychiatry (Dr AR).

## Results

A total of 68% of the 100 suicide attempters were females, and the mean age was 36.3 years (range: 14–66 years); 64% of the subjects were repeated attempters, and 36% had had two or more previous suicide attempts. The most frequently used method was drug overdose (96%), in 21% of the cases in combination with alcohol ingestion (Table I).

Of the suicide attempters, 92% had had at least one current DSM-IV Axis I psychiatric diagnosis. In 87%, it was depressive disorder (unipolar major depression, single and recurrent combined: 59%; dysthymic disorder: 2%; bipolar I disorder, major depressive episode: 12%; bipolar II disorder, major depressive episode: 14%), in 46% anxiety disorders (all forms combined), in 27% substance-related

Table I. Demographic characteristics of the 100 consecutive suicide attempters.

Total number	100
Female, <i>n</i> = %	68
Male, <i>n</i> = %	32
Mean age, years	36.3 (range: 14–66 years)
First attempters, <i>n</i> = %	36 (F = 23, M = 13)
Repeated attempters, <i>n</i> = %	64 (F = 45, M = 19)
One previous attempt, <i>n</i> = %	28
Two previous attempts, <i>n</i> = %	13
Three or more previous attempts, <i>n</i> = %	23
Method of suicide attempt	
Drug overdose, <i>n</i> = %	96
Drug + alcohol ingestion, <i>n</i> = %	21
Poisoning, <i>n</i> = %	2
Wrist cutting + alcohol ingestion, <i>n</i> = %	2

Table II. Current DSM-IV Axis I diagnoses of 100 consecutive suicide attempters.

Diagnosis	<i>N</i> = %
Mood disorders	87
Unipolar major depression (single + recurrent)	59
Dysthymic disorder	2
Bipolar I disorder, major depressive episode	12
Bipolar II disorder, major depressive episode	14
Anxiety disorders <sup>a</sup>	46
Panic disorder	37
Panic disorder with agoraphobia	17
Panic disorder without agoraphobia	20
Agoraphobia only	10
Other anxiety disorders <sup>b</sup>	18
Substance-related disorders	27
Psychotic disorder	2
At least one Axis I disorder	92
No Axis I disorder	8
Total	100

<sup>a</sup>Many patients had more than one anxiety disorder.

<sup>b</sup>Including: PTSD (*n* = 9), social phobia (*n* = 5), GAD (*n* = 3), OCD (*n* = 1), often overlapping with other disorders.

disorders, and in 2% psychotic disorder. None of the 100 suicide attempters had had current diagnosis of manic, hypomanic or mixed affective episode (Table II).

There was a high degree of current Axis I comorbidity between mood, anxiety and substance-related disorders: 32% of the total sample received only one Axis I diagnosis (major depressive episode: 27%; anxiety disorders: 1%; substance-related disorders: 2%; psychotic disorder: 2%), 50% received two diagnoses (major depressive episode + only anxiety disorders: 35%; major depressive episode + only substance-related disorders: 15%) and 10% have had three Axis I disorders (major depressive episode + anxiety disorders + substance-related disorders) (Table III).

Table III. Current Axis I comorbidity among 100 consecutive suicide attempters.

	<i>N</i> = %
Mood disorder only	27
Anxiety disorder only <sup>a</sup>	1
Substance-related disorder only	2
Psychotic disorder only	2
One Axis I diagnosis	32
Mood + only anxiety disorder(s)	35
Mood + only substance-related disorder	15
Two Axis I diagnoses	50
Mood + anxiety + substance-related disorder	10
Three Axis I diagnoses	10
No Axis I diagnosis	8
Total	100

<sup>a</sup>Panic disorder + PTSD.

## Discussion

The rate of drug overdose and poisoning (98%) as the chosen method of suicide attempt in our sample is much higher than in other studies on unselected consecutively screened suicide attempters [9–13]. This could be explained by the fact that our study has been performed at an inpatient unit of clinical toxicology, where the mean reason for the admission was detoxification. Regardless of this, our results support previous international [2,3,9–11,13,14,18] and Hungarian [12] findings, showing that:

1. 54–69% of suicide attempters are females;
2. the frequency of repeated attempters is between 57 and 62%;
3. around 90% of recent suicide attempters have at least one current major mental disorder, most frequently mood disorders (56–77%), and as co-morbid conditions substance-related disorders (26–65%), and anxiety disorders (18–37%);
4. there is a high degree of psychiatric comorbidity among suicide attempters: 57–82% of them have two or more current Axis I psychiatric disorder.

Our results are also in agreement with the findings, showing that anxiety disorder(s) alone is relatively rare both among suicide victims [5,8] and suicide attempters [1,2,11,12].

The fact that Axis II (personality) disorders, present in 31–54% of suicide attempters [9–11,13] were not investigated in this study does not limit the generalisability of the present findings regarding Axis I diagnoses. Moreover, this could be also considered as a strength of our study, showing that Axis I psychiatric morbidity is quite frequent even in a homogeneous sample of nonviolent suicide attempters. However, the lifetime suicide risk of persons, making nonviolent suicide attempt requiring hospital admission (most frequently drug overdose and self-poisoning) remains quite high [6]. This is partly due to the fact that suicide attempters frequently switch their method from nonviolent to violent or from nonlethal to lethal [2,19]. A real limiting factor would be that sub-threshold Axis I disorders (e.g., recurrent brief depression), which also increase the suicidal risk if combined with major depression [20], were not investigated in this study.

## Key points

- More than 90% of (nonviolent) suicide attempters had at least one current DSM-IV mental disorder

- A total of 85% of suicide attempters had a current major depressive episode
- There is a high degree of comorbidity between mood, anxiety and substance-use disorders among persons making suicide attempts

## Statement of interest

The authors have no conflict of interest with any commercial or other associations in connection with the submitted article.

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