
بسم الله الرحمن الرحیم

Suicide

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Between 10 and 18 percent of adults in the general population worldwide report lifetime suicidal ideation, and **3 to 5 percent** have made at least one suicide attempt in their lifetime.

Risk Factors for Suicide

Although suicidal behavior is very complex, multicausal phenomenon involving several medical–biologic, psychosocial, demographic, and cultural components, a history of untreated major mood disorders (particularly in the presence of previous suicide attempt) constitutes the most important risk factor.

For proper prevention, clinical assessment of suicide risk should pay attention to warning signs. The American Association of Suicidology proposed to remember the acronym “Is Path Warm”:

- I Ideation—threatened or communicated
- S Substance abuse—excessive or increased
- P Purposeless—no reasons for living; anhedonia
- A Anxiety, agitation and insomnia
- T Trapped—feeling no way out; perceived burdensomeness
- H Hopelessness
- W Withdrawal—from friends, family, society
- A Anger (uncontrolled)—rage, seeking revenge
- R Recklessness—risky acts, unthinking
- M Mood changes (dramatic)

Primary Diagnosis	D-Graph. & Misc	Personality	Co-Morbidities	Social Factors	Other Factors
Bipolar	Male	Borderline	Subs.abuse/dependence	Divorced	Guns in home
Schizophrenia	Older age	Narcissistic	Alcohol abuse/dep	Widower	Giving away possessions
Major Depr. Episode	White race	Antisocial	Anxiety	Lives alone	Change of friends
Dysthymia	Prior depr. or Sui.attempts	Conduct Dis.	Panic	Isolated	Change of grades
Adj. Dis. w. Depression	Fam. Hx. Depr/attempts	Impulsive		Financial Worries	Adverse events
Delirium or Dementia	Homosex.			Other losses	Few reasons to live
Any psychosis	Suicidal Ideation			No religion	Hx abuse
Hall/delus: espec.poverty	Hopeless/Helpless				
	Agitation/desperation				

Clinically Explorable Suicide Risk Factors in Mood Disorders

- - Severe major depressive episode
- - Current suicide attempt, plan, ideation
- - Hopelessness
- - Guilt
- - Pessimism
- - Few reasons for living
- - Unusual behavior (e.g., making a will or testament)

- - Major depressive episode with mixed features (mixed depression)
- - Agitated depression
- - Past mania or hypomania (bipolar I or II diagnosis)
- - Insomnia
- - Anxiety
- - Appetite and/or weight loss
- - Comorbid anxiety disorders, substance use disorder, acute alcohol intake, cigarette smoking
- - Comorbid personality disorder(s)
- - Comorbid disabling medical disorder(s)

- - Lacking medical care and lacking family and social support
- - Noncompliance, treatment-resistance
- - First few days or weeks of the treatment (particularly if appropriate care and co-medication is lacking) and first few weeks after hospital discharge
- - Previous suicide attempts or suicidal ideation (particularly in the case of violent and highly lethal methods)
- - Early onset or early stage of the illness
- - Predominantly depressive course or high proportion spent in major depressive or mixed mood episode
- - Rapid cycling course of bipolar I or II disorder

- According to both clinical and research observations, depression of suicide victims differs qualitatively from that of living depressed controls:
- Suicidal depressives often experience **more severe** forms of depression, with features highly related to suicide risk, such as **insomnia**, **hopelessness**, **anxiety**, **agitation**, **weight or appetite loss**, feelings of **worthlessness** or **inappropriate guilt**, and **thoughts of death or suicidal ideation**. **Comorbidity with substance (including alcohol) use disorder(s)** is also often observed in depressed suicide victims.
- ***Patients with mood disorders who exhibit volatile and erratic moods associated with dysphoria and agitation or who present the classic mixed states have a particularly higher risk of suicide.***

The standardized mortality ratio of suicide death in (unipolar and bipolar) patients with major mood disorders compared to that in the general population has been reported to be **10- to 30-fold**.

The majority of the studies show that out of the three different clinical manifestations of major mood disorders (unipolar depression, bipolar I disorder, and bipolar II disorder), bipolar patients in general, and **bipolar II** subjects in particular, carry the highest risk of both attempted and committed suicide.

- Around **90 percent** of consecutive suicide victims have at least one but frequently more (mostly untreated) major psychiatric disorders at the time of their death.
- Comorbid anxiety and personality disorders are also frequently present, but they are not the main diagnosis, as these patients experience suicidal behavior mainly in the case of a coexisting major depressive episode.
- Although the ratio of attempted to completed suicide in the general population is about **15–40:1**, it is much lower (**5–10:1**) among patients with major mood disorders, suggesting that these patients use more lethal (or more violent) suicide methods. Patients with mood disorders, particularly bipolar patients, often present a low ratio of suicide attempts to completed suicides, which points to the relatively high lethality of suicide attempts in bipolar disorder.

As in other studies, the risk was very high just immediately after discharge from hospital.

Risk factors related to personality features

- - Aggressive–impulsive–pessimistic personality traits
- - Cyclothymic, irritable, depressive, anxious affective temperament

Risk factors related to personal history and/or family history

- - Early childhood adverse events (parental loss, separation; emotional, physical, and sexual abuse)
- - Permanent adverse life situations (unemployment, financial problems, isolation, living alone, chronic and disabling medical disorders)
- - Acute psychosocial stressors (loss events, acute financial catastrophe)
- - Family history of depressive or bipolar disorders (first- and second-degree relatives)
- - Family history of suicide and/or suicide attempt (first- and second-degree relatives)

Completed suicide and suicide attempts are two different but greatly overlapping phenomena:

Around **half** of those who complete suicide have attempted suicide at least once previously, and the first attempt (even if the method used is nonviolent or nonlethal) significantly increases the risk of future completed suicide. This is partly because of the fact that those who repeatedly attempt suicide frequently switch their method from nonviolent to violent or from nonlethal to lethal.

Prior suicide attempt and **current major depression** are the two strongest predictors of future suicide, and the vast majority of suicide attempters or completers come from a population of people with **current suicidal ideation**, particularly in the presence of an untreated major depressive episode.

The first suicide attempt significantly increases the risk of future suicide attempts or completed suicide, and about **20 percent** of those who attempt suicide eventually will die by their own hand.

However, **up to half** of suicide victims have made at least one prior suicide attempt, indicating that ***about 50 percent of suicide victims die by their first suicidal act***. Therefore, to detect the risk of suicide in patients with mood disorders and to plan prevention strategies, as early as possible, even before the first suicidal act, is crucial in suicide prevention.

Previous suicide attempts, particularly in the case of violent or more lethal methods, are the most powerful single predictor of future attempts and fatal suicide

Family, twin, and adoption studies show that a **family history** of suicidal behavior and/or major mood disorders in first- and second-degree relatives are among the strongest risk factors for both attempted and completed suicide in psychiatric patients in general, and in patients with major mood disorder in particular.

Although **Caucasians**, **males**, **older persons**, and **urban residents**, as well as **minority groups** (e.g., immigrants, ethnic minorities, specific professions, prisoners, lesbian, gay, bisexual, and transgender persons) are more and less overrepresented among completed suicides, females and young persons more commonly attempt suicide. Suicide mortality is elevated among those in a certain profession—especially veterans, health care professionals, and agricultural workers.

- Although **negative life events** do not lead to suicidal acts in the general population, they could trigger suicidal behavior in **vulnerable persons**, particularly in high-risk groups, such as those with major depression.
- Adverse, unwanted, or stressful life events play an important role in the suicidal process as **predisposing** (childhood events, including physical and sexual abuse) and **precipitating** (adulthood events) factors.

Suicide Protective Factors in Patients with Mood Disorders

- Good family and social support
- Pregnancy and postpartum period
- Having a large number of children
- Holding strong religious beliefs (regardless of the nature of religion)
- Regular physical activity
- Restricting lethal suicide methods whenever possible, (e.g., barriers at train stations and bridges), as well as introducing stricter laws on drug and gun control
- Optimistic personality features
- Hyperthymic temperament
- Acute and long-term treatment, both pharmacological and nonpharmacological

- Pharmacotherapy, however, is a necessary but not sufficient method of reducing suicidal behavior in depressed patients, and psychosocial interventions are always needed.
- Psychoeducation and supportive psychotherapy are also always needed.
- There is some evidence that concurrent depression-focused psychotherapies, in combination with pharmacotherapy, also improve the compliance of patients and increase the effectiveness of pharmacotherapy and may therefore contribute to suicide prevention for patients with severe unipolar or bipolar disorders.

Suicide Prevention in the Primary Care

- Despite the fact that **more than two thirds** of suicide victims contact different levels of health care (mostly GPs and psychiatrists) during last few weeks or months before their death, the rate of recognition of depression and adequate pharmacotherapy among depressed suicide victims is around **20 to 25 percent**, which is disturbingly low.
- However, more recent studies reported much higher rates of recognition and treatment of depression in primary care practice (62 to 85 percent), and 33 to 50 percent of them were treated with antidepressants.
- Physician factors related to poor recognition of depression include **lack of experience**, **insufficient or suboptimal knowledge about symptoms, treatment and good prognosis in treated depression**, **prejudices about mental illness**, **lack of postgraduate psychiatric training**, **insufficient interview skills**, **lack of cooperation with psychiatrists**, and **a low level of empathy**.

- Compared to nonsuicidal patients, suicide victims visit their GPs much more frequently in the last 4 weeks of their life.
- Many physicians and even mental health care professionals avoid discussing suicide directly and frankly with patients for fear of provoking suicidal behavior or, more likely, because of personal discomfort. However, asking questions about suicidal ideation and past suicide attempts **does not** trigger suicide. This is particularly true if such a discussion is accompanied by some sentences explaining that depressive disorders can be successfully treated and that suicidal intent will vanish after (or even before) the recovery from depression.

Suicide Prevention Strategies in Patients with Mood Disorders

- **Eliminating acute suicide danger** (physical inhibition, emergency hospitalization, sedation, anxiolysis, crisis-intervention)

• Improving the **early diagnosis and treatment** of mood disorders

1. **Education of health care workers, patients, relatives and gatekeepers** (clergymen, policemen, teachers, social workers, peer-helpers, etc.)

2. **Adequate acute and long-term treatment** aftercare (pharmacotherapy, nonpharmacological interventions such as psychoeducation, psychotherapy, cognitive therapy, family counseling and family therapy, regular long-term care, regular contact, etc.)

- Improving the patients’ compliance (psychoeducation, psychotherapy, cognitive therapy, etc.)

- **Educating the public** via printed and electronic media, including the Internet

1. Educating about the **symptoms, dangers, and treatable nature** of mood disorders and the preventable nature of suicidal behavior

2. **Reducing the stigma** against mood disorders and suicide

3. Providing information on **how and where to get help** in the case of mood disorder and suicide crisis

Health care professionals, of course, are unable to prevent all suicides, including those occurring in the context of patients with mood disorders. Nevertheless, the current theoretical knowledge and the available treatment and preventive strategies are sufficient to prevent many, probably most of them.