Key Features of Suicidal Behavior in Mental Disorders

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16.1 Bipolar Disorder

16.1.1 Context

Up to 50 % of patients suffering from bipolar disorder will attempt suicide during their life; 15–30 % will commit suicide. The risk of suicide is up to 20–30 times greater among bipolar patients than among the general population.

16.1.2 Specific Risk Factors

- History: personal and familial history of suicide attempt and personal history of childhood abuse
- Female gender
- Personality traits: hopelessness and cyclothymic/depressive temperament
- Features of acute mood episode: severity of depressive symptoms and presence of psychotic/atypical/mixed characteristics
- Evolution of bipolar disorder: young age at illness onset, first years of evolution, first depressive episode, onset and end of acute mood episode, transition periods,

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rapid cycling, predominant depressive polarity, and depressive polarity of first illness episode
- Comorbidities: substance use disorder, anxiety disorder, cluster B personality disorder, and eating disorder

16.1.3 Assessment

It is important to detect bipolar disorder in order to reduce the duration of untreated illness. Scales such as Mood Disorder Questionnaire could be used.

16.1.4 Specific Management

- To reduce risk of mood transition and induction of mixed characteristics of episode, antidepressant monotherapy should be avoided.
- Use of antiepileptic drugs reduces suicide attempt rates both relative to patients not receiving any psychotropic medication and relative to their pretreatment levels.
- Long-term lithium treatment has been associated with reduced risk of suicide and suicide attempts: the overall risk of suicides and attempts is around five times less among lithium-treated subjects than among those not treated with lithium. Lithium treatment discontinuation, particularly if abrupt, leads to suicidal behavior.
- Acceptance and commitment therapy and dialectical behavior therapy seem to be promising to reduce suicidal risk in bipolar disorder.

16.2 Major Depressive Disorder

16.2.1 Context

Up to 70 % of suicide attempters are depressed at the time of the gesture. In total, 15 % of patients suffering from depression will commit suicide. The standardized mortality ratios for suicide among depressed individuals compared to the general population are 21 for males and 27 for females.

16.2.2 Specific Risk Factors

- History: personal and familial history of suicide attempt and personal history of childhood abuse
- Male, younger age, and elderly
- Personality traits: hopelessness and impulsivity
- Features of acute mood episode: anhedonia, insomnia, anxiety, panic attacks, and severity of depressive symptoms
- Evolution of unipolar disorder: first years of evolution
- Comorbidities: anxiety disorders, substance misuse, and somatic diseases

16.2.3 Assessment

The Columbia-Suicide Severity Rating Scale (C-SSRS) may be used for assessment of suicidal ideation and behavior.

16.2.4 Specific Management

- Antidepressants decrease risk of completed suicide in depressed patients and suicidality in elderly. It is admitted that the risk posed by untreated depression has always been far greater than the very small risk associated with antidepressant treatment. But antidepressant use is still debated since the black-box warning of the Food and Drug Administration (FDA) in young people.
- Data from several studies indicate marked reductions of suicidal behavior and mortality during add-on long-term treatment with lithium salts.
- Intravenous ketamine, a widely used anesthetic agent, produces rapid reductions in suicidal ideation in treatment-resistant unipolar patients. However further studies are warranted to test ketamine's antisuicidal effects in higher-risk samples.
- An acute decrease of suicidal ideations following electroconvulsive therapy and repetitive transcranial magnetic stimulation has been reported in depressed patients.
- Existing evidence supports the efficacy of cognitive behavioral therapy in preventing suicidal behavior. Some other psychological treatments, such as acceptance and commitment therapy or positive psychology, are promising, but the supporting evidence remains insufficient.

16.3 Eating Disorders

16.3.1 Context

Suicide attempts occur in approximately 3–20 % of patients with anorexia nervosa and in 25–35 % of patients with bulimia nervosa.

The risk of suicide among patients suffering from eating disorder is very elevated, up to 30 times greater than that for the general population. Restrictive anorexia in particular is strongly associated with completed suicide. Anorexia purging type and bulimia nervosa are associated with suicide attempts rather than completed suicide.

16.3.2 Specific Risk Factors

- Being adult
- Severity of disorder
- Social burden of eating disorder
- Comorbidities: depressive episode, bipolar disorder, and substance use disorder
- For attempted suicide: purging symptomatology, use of laxative, self-induced vomiting, and period of switching to the bingeing/purging subtype of anorexia nervosa
- For completed suicide: being anorectic

16.3.3 Assessment

There is no specific scale for assessment of suicidal risk in eating disorders.

16.3.4 Specific Management

- Treatment of psychiatric comorbidities, especially substance abuse and depression, reduces suicidal risk.
- Hospitalization is justified if patients are at high suicidal risk and during transition periods.
- Dialectical behavior therapy seems to reduce suicidal behavior in patients suffering from purging behaviors.

16.4 Attention-Deficit and Hyperactivity Disorder

16.4.1 Context

In epidemiological studies, attention-deficit and hyperactivity disorder (ADHD) has been associated with an increased risk of suicidal behaviors compared to the general population. This association seems to be mediated by comorbid psychiatric disorders and moderated by the type of ADHD (inattention vs. hyperactivity). ADHD patients have increased risks of attempted (OR = 3.62) and completed suicide (OR = 5.91), even after adjusting for comorbid psychiatric disorders.

16.4.2 Specific Risk Factors

- Risk factors may have a different effect depending on gender: emotional and behavioral problems in males and depressive episodes in females increase the risk for suicidal behaviors.
- Comorbidities: antisocial personality disorder, borderline personality disorder, or bipolar disorder.
- Risk of attempted suicide among first-degree relatives (parents or full siblings of probands with ADHD): OR = 2.42 for parents and OR = 2.28 for siblings.
- Personality traits: impulsivity, impaired response inhibition, and poor emotion regulation.
- Characteristics of ADHD: severity of childhood hyperactivity, number of conduct disorder symptoms, hyperactive or combined ADHD subtype, and persistent symptomatology.

16.4.3 Assessment

The detection of adult ADHD is essential to evaluate the risk of suicidal behaviors, especially in comorbid conditions. The adult ADHD self-report scale (ASRS) can be used as a screening instrument in adults. The most used instrument for the diagnosis of ADHD in childhood is the Wender Utah Rating Scale (WURS).

16.4.4 Specific Management (Treatment Controversies)

- Security warnings have been raised in the USA and Canada to monitor closely the risk of suicidal ideation and attempts among children treated with atomoxetine. Suicidal tendencies are a contraindication for the prescription of methylphenidate in the EU.
- However, the effects of ADHD treatments on suicidal behavior remain unclear. A large recent register-based study confirms their association at a population level, but ADHD treatment reduced suicide-related events in within patient comparisons.

16.5 Borderline Personality Disorder

16.5.1 Context

Most patients with a borderline personality disorder will attempt suicide (60–70 %), but only a smaller fraction will die by suicide (5–10 %). They present a chronic suicidality, which is listed as a diagnostic criterion, and an average of 3.3 attempts during their lifetime.

16.5.2 Specific Risk Factors

- History: personal and familial history of suicide attempt and substance use disorders and personal history of childhood abuse (particularly sexual abuse).
- For attempted suicide: early onset, number of hospitalizations and previous attempts, depression, interpersonal triggers, poor social adjustment, chronic feelings of emptiness, impulsivity, and hostility.
- For completed suicide: male gender, impulsivity, hostility, comorbid cluster B disorders and substance use disorders, age over 30 years, and untreated cases.
- Affective instability and psychotic symptomatology might protect borderline patients from suicide completion.

- Early phases and follow-up in mental health services are associated with multiple threats and attempts but low lethal outcomes. Failed treatments and multiple previous attempts seem to predict more lethal future attempts.
- Comorbidities: major depression, antisocial personality disorder, anxiety disorder, substance use disorders, bipolar disorder, and eating disorders.

16.5.3 Assessment

Nonspecific questionnaires can be used to measure the frequency, intent, and medical severity of suicide attempts and self-harm in this population. The Linehan Suicide Risk Assessment and Management Protocol has been validated in samples of borderline patients.

16.5.4 Specific Management

- Psychotherapy is the recommended treatment option, with a focus on managing suicidal urges, reducing reinforcements, and preserving adherence to treatment programs.
- Pharmacotherapy is mostly viewed as an adjunctive component for comorbid axis I disorders and in periods of crisis. Behavioral dyscontrol can be treated with selective serotonin-reuptake inhibitors, mood stabilizers, and low-dose neuroleptics.
- Dialectical behavioral therapy is effective for reducing suicide attempts.
- Less intensive psychotherapies and brief crisis intervention may also reduce suicidal behaviors in this population.
- "No harm" contracts in the context of a therapeutic alliance and brief or partial hospitalization in periods of crisis should be considered.

16.6 Substance Use Disorders

16.6.1 Context

Seventeen to 45 % of patients seeking treatment for substance dependence report a history of suicide attempts, often multiple. Slightly smaller rates have been reported in community samples. Suicide is also a leading cause of death among substance users, independently of the substance, the only exception being cannabis. For instance, patients with alcohol dependence are ten times more likely to make a fatal suicide attempt than the general population, and 5–10 % of intravenous drug users complete suicide. Moreover, substance use seems to act as a trigger for suicidal behaviors.

16.6.2 Specific Risk Factors

- History: personal history of childhood abuse (physical, sexual, but also emotional) and neglect, family history of suicidal behavior, and history of unsuccessful treatment
- For suicide attempt: young age and female gender
- Demographic: poor social support (unemployment, marginalization) and disrupted family background, not being in couple
- Personality traits: impulsivity, hostility, and a history of aggression
- Evolution of the disorder: early onset (<18 years of age), intravenous use of stimulants, use of multiple substances, longer duration of illness, having experienced an overdose, and higher levels of dependence
- Comorbidities: major depressive disorder (antidepressant treatment), bipolar disorder, antisocial and borderline personality disorder, anxiety disorders, attention-deficit and hyperactivity disorder, and eating disorders

16.6.3 Assessment

Written policies for standardized assessment of suicidal risk among substance users are needed in all care centers dealing with substance use disorders. Every staff should also participate in regular (annual) training for risk assessment.

16.6.4 Specific Management

- The treatment plan should focus concomitantly on both addictive behavior and comorbid psychiatric disorders (dual diagnosis).
- Especially consider clinical management of impulsivity and hostility.
- Integrate motivational interviews and facilitate withdrawal in structured care programs.

  Preventive measures such as favoring social bonding, educational programs, or a reduction of available substances among adolescents.

16.7 Dementia

16.7.1 Context

Frequency of completed suicide highly increases with age, unlike frequency of suicide attempts, which decreases. Most of the general risk factors pile up in elderly people, from psychosocial to somatic or psychiatric ones. Considering dementia, its direct relationship with suicide remains unclear.

Caregivers are also concerned by suicidal risk for themselves.

16.7.2 Specific Risk Factors

- History: adjustment period following diagnosis.
- Type of dementia: semantic dementia.
- Features of dementia: global severity, lower age of onset, delusion, agitation/aggression, anxiety.
- Comorbidities: depression and anxiety occurring frequently during dementia could be the main factors leading to suicidal behaviors.
- Other: suicidal risk of the caregivers is increased.

16.7.3 Assessment

- Behavioral and psychological symptoms of dementia have to be regularly assessed: using Neuropsychiatric Inventory (NPI, Cummings), a hetero-questionnaire assessing 12 dimensions from delusion to appetite and eating change.
- Specific depression assessment tools can be used:
  - Geriatric depression scale (GDS, Brink and Lesavage). A 4- or 15-item scale for rapid or detailed screening of depression in elderly people.
  - Cornell Scale for Depression in Dementia (CSDD, Alexopoulos). Two semi-structured interviews with the informant and the patient, the final rating of the 19 items representing the rater's clinical impression.

16.7.4 Specific Management

- Pay attention to suicidal ideation in every stage and type of dementia, particularly at the time of diagnosis and during early stages of the illness.
- Develop psychological support and care support for patients.
- Screen and treat depression, which has to be specifically considered as a comorbid entity but not as a physiological feature or evolution of dementia.
- Assess and treat anxiety as soon as possible.
- Screen and assess dementia in elderly suicide attempters, regardless of a depression diagnosis.
- Consider psychological support for caregivers of dementia patients, especially patients with suicidal ideation.

16.8 Schizophrenia

16.8.1 Context

Regardless the cause, schizophrenic patients are highly at risk of premature death compared to general population and other psychiatric disorders. Death by suicide

represents the most frequent cause of death (10–15 %). Lifetime risk for suicide in schizophrenia is about 5 %. From 20 to 40 % of patients will attempt suicide at least once.

16.8.2 Specific Risk Factors

- Gender: compared to general population, males are more likely to attempt suicide, and women are more likely to die by suicide.
- Course of the illness: early age at onset, young age, and poor adherence to treatment.
- Features of schizophrenia:
  - Subtypes: schizoaffective and paranoid schizophrenia.
  - Clinical features: presence of hallucinations, suspicion, good insight (pay specific attention to insight recovery), and impulsivity/violence.

16.8.3 Assessment

- Consider specific scales to assess suicidal risk: Schizophrenia Suicide Risk Scale (SSRS, Taiminen).
- Assess quality of insight with scales considering multidimensional and dynamic features of insight: Scale to Assess Unawareness of Mental Disorder (SUMD, Amador).
- Assess depressive symptomatology using specific depression scales, in order to distinguish negative symptoms from depression symptoms: Calgary Depression Scale for Schizophrenia (CDSS, Addington and Addington).

16.8.4 Specific Management

- Consider personal history of suicidal behaviors, violent behaviors, and dimensions of impulsivity.
- Considering medications, second-generation antipsychotics, especially clozapine (specific indication for suicide risk in some but not all countries), should be preferred.
- Screen depression and its specific features (i.e., hopelessness and guilty ideas of reference), particularly during insight recovery after acute phases of the illness.

16.9 Anxiety Disorders

16.9.1 Context

Even though the question remains partially unclear because of the frequent and multiple comorbidities in anxiety disorders, suicide rates are higher compared to

general population in every anxiety disorder but obsessive-compulsive disorder (OCD). An approximate threefold increase of suicidal risk in patients suffering from anxiety disorders should be considered.

In panic disorders (PD), prevalence of suicide attempts is as high as in depression, i.e., 7 %. In post-traumatic stress disorder (PTSD), risk of suicide attempts increases by four, and risk of completed suicide increases by seven. In OCD, median rates of suicidal ideation and suicide attempts reach, respectively, 30.5 % and 13.4 %.

16.9.2 Specific Risk Factors

- Anxiety disorders (all):
  - Symptoms intensity.
  - Avoidant coping strategies (indirectly, through disability, social isolation).
- PTSD:
  - Re-experiencing and avoidance symptom clusters of PTSD.
- OCD:
  - Severity of OCD symptoms, mainly obsession symptoms.
  - Comorbid axis I diagnoses, severity of depressive, and anxiety symptoms.
- Comorbidities:
  - Mood disorders (depression, bipolar disorder).
  - Substance abuse (linked to the "auto-medication" of the anxiety disorder).

16.9.3 Assessment

Scales for the screening of anxiety disorders (Beck Anxiety Inventory, General Anxiety Disorder-7) should be used. Suicidal risk should be systematically assessed.

16.9.4 Specific Management

- Anxiety disorders (all): cognitive behavioral therapy (CBT) on the illness and on the avoidant coping strategies should be considered.
- Comorbidities have to be systematically checked, especially depression, other anxiety disorders, and alcohol abuse.

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