# Depression and Suicide

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**Abstract:** Among the various mental disorders which tend to be closely related to suicide, depression is a particularly important risk factor. Many patients suffering from depression commit suicide never having had access to psychiatric care or proper treatment. Although depressed mood, psychomotor retardation, anxiety, and autonomic symptoms may occur in depression, patients suffering from depression often visit a primary care physician rather than a psychiatrist, complaining of various somatic symptoms. Therefore, the role of the primary care physician, not only that of the psychiatrist, is critical in preventing such patients from committing suicide. In this regard, the present report outlines means of assessing suicide risk in depressed patients. Since early diagnosis and implementation of intensive treatment for depression provide a good chance of preventing suicide, every physician should know how to assess the risk of suicide.

**Key words:** Depression; Suicide; Risk factors; Accident-proneness

## Introduction

According to statistics published by the National Police Agency, 31,957 individuals committed suicide in Japan in 2000, a rate of 25.2 per 100,000 population.[1)] Among the causes of suicide, physical illness was the most common, accounting for 34.9% of all suicides. Because of this close association with somatic illness, because individuals with psychiatric problems often visit a physician who does not specialize in psychiatry, and because depression is closely related to suicide and is associated with various somatic symptoms, general practitioners, not only psychiatrists, play a significant role in preventing suicide.

This report focuses on assessment of the risk of suicide in depressed patients. Since early diagnosis and implementation of intensive treatment provide a good chance of suicide prevention, it is important that every physician be well informed as to how to assess the risk of suicide.

## Clinical Picture of Depression

Kielholz[2)] reported risk factors associated with suicide in patients suffering from depression (Table). These risk factors are described below, with special emphasis on those possibly requiring particular attention.[3)]

According to a survey done using the psychological autopsy method, 70–90% of those

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Table Risk Factors for Suicide in Depressed Patients (Kielholz, 1974)[2)]

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| A) Signs of suicide risk and selection of means |
| 1) Prior history of attempted suicide or implication of suicide |
| 2) Family history of suicide |
| 3) Verbal threats of suicide |
| 4) Concrete disclosures as to preparation and implementation of suicide |
| 5) Unnaturally calm behavior after having been in an unstable state |
| 6) Dreams of self-destruction |
| B) Specific symptoms |
| 1) Severe anxiety / irritability |
| 2) Persistent insomnia |
| 3) Uncontrollable aggressiveness |
| 4) Initial, convalescent, and mixed stages of depression |
| 5) Age periods associated with biological crisis (adolescence, pregnancy, puerperium, climacterium) |
| 6) Severe self-guilt feelings |
| 7) Incurable illness, hypochondriacal delusion |
| 8) Concomitant alcohol dependency |
| C) Environmental factors |
| 1) Broken family |
| 2) Loss of someone or something important |
| 3) Occupational and financial difficulties |
| 4) Failure to carry out tasks or reach life goals |
| 5) Loss of religious affiliations |

who committed suicide had evidence of some mental disorder when alive, and 60–70% were depressed. Reportedly, one in six patients who fall under the category of major depression as set forth in the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV), of the American Psychiatric Association, dies as a result of suicide. Thus, the suicide rate among patients suffering from depression is at least several dozen times higher than that of the general population.

Patients with severe depression who meet the diagnostic criteria for melancholia are at particularly high risk of suicide. Caution is also necessary in dealing with patients who are not seriously ill but have prolonged illnesses with repeated exacerbations. Rapid cyclers, who alternate between hypomanic and depressive phases within a short period of time, and patients who present a mixed clinical picture in the convalescent stage are also at high risk of suicide.

Symptoms that require particular caution include persistent insomnia and extreme psychomotor retardation and anxiety / irritability. Early morning waking is observed in most depressed patients, and suicide attempts are often made at that time; thus, the highest priority should be given to treating insomnia.

Patients who are aware of feelings of despair, hopelessness, and worthlessness also require special attention. Certain researchers attach great importance to patients' feelings of despair as a predictor of future suicide.

The suicide rate in patients suffering from depression associated with delusions is extremely high. Depressed patients suffering from hypochondriacal delusion, delusion of self-guilt, or delusion of poverty have a five-fold higher suicide rate than those without such delusions.[4)]

Some patients who have not yet reached the hypochondriacal delusion stage may dwell on somatic symptoms. It is not rare for somatic symptoms to be the most prominent feature

of the patient's clinical picture, while other depressive symptoms remain relatively obscure. Such patients are apt to focus exclusively on their somatic symptoms and visit primary care physicians other than psychiatrists.

Elderly patients in particular often complain of somatic symptoms, rather than reporting depressed feelings. The leading cause of suicide in the elderly is physical illness. Although some highly suicidal patients may have a malignant disease with a poor prognosis, the presence of a number of somatic symptoms, no one of which is particularly severe, should also be regarded as a risk factor for suicide.[5,6)]

It has been widely observed in the clinical setting that patients in the early stage of dementia are often depressed. Combined with inappropriate cognition of their surroundings, depression in such patients may engender feelings of hopelessness. Even seemingly small inabilities can suddenly create an imminent risk of committing suicide.

There is also danger when disturbance of consciousness associated with some organic disorder is concomitant with a depressive state. Suicide resembling an accident may occur under the influence of delirium. In particular, when elderly patients who have tended to be depressed for a long period develop mild dementia or delirium as well, the risk of suicide increases and particular caution is warranted. It can be said that the 3Ds, namely, depression, mild dementia, and delirium, form a suicide risk triad in the elderly.

## Stage of Illness

In regard to the relation between stage of illness and suicide risk, it is noteworthy that risk may increase abruptly just after onset, in convalescence, and just after discharge from the hospital. Of course, this does not apply to all patients, and suicide risk should be carefully assessed in every stage of illness.

Pöldinger[7)] classified the process leading to suicide into three stages: a) thinking, b) ambivalence, and c) decision making. A certain period of calm, like "the calm before the storm", often characterizes the decision-making stage. This can be a dangerous time, possibly with important implications for treatment. It may happen that a patient who has been depressed and suffering extreme anxiety becomes peaceful, smiles, and shows gratitude to health care providers, with a seemingly sudden disappearance of earlier symptomatic behavior. Because of this period of calm, health care providers may arrive at the optimistic conclusion that the patient's suicide risk has disappeared, when this is actually far from the case.

## Suicidal Ideation, Suicide Attempt, and Family History of Suicide

Any threats or actions that imply suicide should be given serious consideration. The expression of suicidal ideation is not limited to words alone, and may be conveyed through a medium other than speech. Patients may directly say "I want to die" or "I am going to kill myself". They may also express themselves indirectly, making statements such as "Life has no meaning" or "I wish I would never wake up". Another possibility is saying something like "Thank you for all you have done for me", in an unnatural situation. Before committing suicide, patients may dispose of or give away valuable possessions; they may prepare the means to be used in suicide; or they may visit the place where they plan to commit suicide.

In comparison with the general population, those who have survived a suicide attempt are far more likely to repeat suicidal behavior and to actually succeed. One in ten patients with a history of attempted suicide does ultimately succeed in committing suicide. The suicide risk is several hundred times greater among these patients than in the general population, indicating a history of attempted suicide to be an extremely important risk factor. Patients who have a history of self-injury or self-mutilation, such as taking a slight overdose of pills or cut-

ting their wrists, are also at high risk of suicide in the long term.

When patients suffering from depression attempt suicide during treatment, they most frequently use prescription drugs. Therefore, it is important that neither hypnotics nor antidepressants be prescribed at a potentially fatal dose or that the patient's family assume the responsibility for drug management. Particular caution is warranted in the case of tricyclic antidepressants, which are dangerous because of their highly adverse effects on the cardiac system.

It is also important to obtain information as to the patient's family history of suicide. The presence of suicide(s) in the patient's immediate family or among other close relatives increases the risk of suicide. Some families reportedly have a high prevalence of suicide, raising the possibility of heredity playing a role in suicide. In addition, a person is reportedly at increased risk of suicide if he or she experiences the suicide of someone, not necessarily a relative, who is important to him or her. It is possible that when those who may be at high risk of suicide learn of someone else's suicide they see themselves in the same light as the person who died and would therefore be at markedly increased risk of committing suicide. The risk of "cluster suicide", particularly in adolescence, has been emphasized in recent years.[8,9)]

An unconscious self-destructive tendency (accident proneness) may precede suicide; patients may become incapable of maintaining their personal safety or caring for their health. The possible approach of an emergency should be suspected when an individual with a number of other risk factors repeatedly has accidents or fails to comply with medical recommendations for management of a chronic illness.

## Association with Drinking

When alcohol dependence is concomitant with depression, the risk of suicide increases. Even if the diagnostic criteria for alcohol dependence are not met, many who attempt suicide are under the influence of alcohol when the attempt is made.[10)] The direct effects of alcohol include blunting of judgement and facilitation of the tendency toward suicidal behavior.

Since alcohol may provide temporary relief from some depressive symptoms, alcohol consumption may increase gradually without a patient's conscious awareness. Among patients suffering from depression, non-drinkers may begin imbibing or those with low alcohol consumption may increase their intake. Even though patients seem to experience some improvement of symptoms while under the influence of alcohol, the original depressive symptoms actually tend to worsen in the long term, because alcohol essentially depresses the central nervous system. Considering the risk of suicide, patients should abstain from drinking alcohol while being treated for depression.

## Risk of Extended Suicide

In addition to the suicide risk of the patient, the risk of extended suicide (murder suicide), which involves a person or persons closely related to the patient, should also be kept in mind. The patient may harbor an illusion of being united with the possible victim or be completely unable to imagine that person functioning without the patient. In despair, the patient chooses suicide as the only possible solution, having concluded that the other would not survive without him or her.

If the patient is a young mother, her children may become victims. Aged parents may commit suicide over a grown child who is physically handicapped and whom they are unable to care for. A middle-aged man may commit suicide after killing all the members of his family, or an elderly person with a sick or bed-ridden partner may commit suicide after killing the partner. Thus, attention must be focused not only on the mental symptoms of depressed patients, but also on their social and familial situations.

It is important to ensure the safety of potential victims susceptible to homicidal actions on the part of the patient, as well as to control the patient's own potentially suicidal actions.

## Conclusion

It is much more likely for suicide to be undertaken by an individual with a mental disorder than for someone mentally competent to commit suicide. Among mental disorders, depression is particularly important in terms of its association with suicide. It should be noted that not all patients suffering from depression exhibit a typical clinical picture, and it merits emphasis that early diagnosis of depression and implementation of proper treatment provide a good chance of suicide prevention.

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