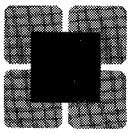

Suicide risk associated with drug and alcohol addiction

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■ The association of alcohol and drugs with suicidal thinking and behavior is both causal and conducive. The subjective state of hopelessness is key to the disposition to actual suicide. Alcohol and drugs are influential in providing a feeling of hopelessness by their toxic effects, by disruption of interpersonal relationships and social supports, and, possibly, by manipulating neurotransmitters responsible for mood and judgment. Because alcoholism and drug addiction are leading risk factors for suicide and suicidal behavior, any alcoholic or drug addict should be assessed for suicide, especially if actively using alcohol or drugs.

□ INDEX TERMS: SUICIDE; ALCOHOLISM; SUBSTANCE DEPENDENCE; DEPRESSION □ CLEVE CLIN J MED 1992; 59:535–538

SUICIDE AS A consequence of alcoholism and drug use has long been recognized by investigators from a variety of disciplines assessing suicide, and many studies have confirmed that alcohol and drug addiction are major risk factors for suicide, both as direct causes and as precipitants for suicidal behavior.[1–6] This article explores the connection between chronic alcohol and drug use and suicide and finds that careful screening for alcoholism and drug abuse in the setting of a suicide attempt is crucial in order to minimize the risk of future suicide attempts.

ALCOHOL, DRUGS, AND THE LINK TO SUICIDAL BEHAVIOR

Chronic use of alcohol and drugs plays a primary etiologic role in the emergence of suicidal thinking and actions via pharmacological effects on the brain that impair judgment and cognition and cause severe depression. In addition, the crisis-oriented lifestyle of the alcoholic and drug addict, with subsequent disruption of interpersonal relationships, is conducive to the development of suicidal impulses. Moreover, the alcoholic and drug addict may have comorbid psychiatric disorders that also have suicide as a significant risk factor.[7–10]

Studies have provided substantial agreement that suicidal behavior (including completed suicides) is highly prevalent among alcoholics and drug addicts in both adult and adolescent populations.[1,2,7,11–16] Among adolescents, suicide ranks second to traumatic accidents as a cause of death. Because alcoholism and drug addiction are common in adolescent disorders as confirmed by the Epidemiological Catchment Area (ECA) data, the prevalence of suicide in this population is not surprising.[1,17] The average age of onset of alcoholism is 22 in males and 25 in females, according to ECA findings.[18]

The San Diego studies of suicides found that 58% of all admissions for suicide were associated with drug and alcohol addiction.[1,2,7] In addition, several studies of addicted populations reported that approximately 25% of alcoholics and drug addicts kill themselves by a variety of means.[9,19,20] ECA investigations have con-

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TABLE 1
FACTORS ASSOCIATED WITH SUICIDE RISK

Variables ranked in order of importance	Description
1	Age (45 and older)
2	Alcoholism
3	Irritation, rage, violence
4	Prior suicidal behavior
5	Sex (male)
6	Unwilling to accept help
7	Long duration of current episode of depression
8	Prior inpatient psychiatric treatment
9	Recent loss or separation
10	Depression
11	Loss of physical health
12	Unemployed or retired
13	Single, widowed, divorced

Modified from Litman RE, Baberow NL, Wold CI, Brown TR. Prediction models of suicidal behaviors. In: Beck H, Resnick LP, Lettieri DJ, eds. The prediction of suicide. Bower, MD: Charles Press, 1974: 141.

firmed a lifetime prevalence of 18% for suicide among alcoholics and drug addicts in the general population.[20] Some investigators have reported that as many as 70% of adolescent suicides are associated with alcohol or drug problems.[1,2,12]

The use of alcohol and drugs as poisons represents the most common means of inflicting self-harm. According to several studies,[7-9] alcohol and drug addiction are the leading risk factors for suicide for all psychiatric disorders, including depression and schizophrenia. In one comparison of weighted relative risks, depression unrelated to alcoholism was only a moderate predictor of suicidal risk[21] (*Table 1*). This is an interesting but not surprising observation if alcoholism is factored out of depressive disorders. It is possible that many studies reporting higher rates of suicide among affective disorders do not separate out alcoholism from the affective disorders. This practice may be perpetuated by the propensity for alcoholism to produce a clinical depression indistinguishable from affective disorder. The denial of abnormal alcohol intake by alcoholics further obfuscates the diagnosis.

SUICIDAL ALCOHOLICS AND DRUG ABUSERS: CLINICAL CHARACTERISTICS

Although suicide and attempted suicide may occur at any age, younger (ages 20 to 40) and older (ages 60 and over) alcoholics and addicts are at increased risk. In the San Diego study, suicidal patients in their 20s constituted two thirds of all completed suicides. Of the remaining third, 60% were seen in those between ages 30 and 39.[1,2] Suicidal risk levels off in middle age only to rise again in the over-60 age group.

White men are the most likely to commit suicide, although the rate for black men is increasing. Being separated, divorced, or widowed provides a greater risk for suicide, as does being unemployed or retired. Poor physical health with an acute or chronic illness also enhances the relative risk[22] (*Table 2*).

Recent studies have shown an average duration of 9 years for alcohol and drug addiction in suicide cases.[1,2] This is a shorter time period than expected from earlier studies, which had indicated a more prolonged course of alcoholism. The data were collected from police reports and were therefore subject to police procedures and reporting biases which are not clearly controlled for in this method for data collection.

Suicide risk is most highly correlated with multiple drug use and the diagnosis of combined drug and alcohol addiction.[2,16] Eighty-four percent of addicts who commit suicide are both alcoholics and drug addicts. In the study previously discussed, the mean number of drugs used among the suicide victims was 3.6. The drugs most commonly used by suicide victims were alcohol, opiates, sedatives, amphetamines, cocaine, and marijuana. Interestingly, phencyclidine and hallucinogens were less represented.[1,2]

In a review of a large number of reports regarding suicides and attempted suicides before 1974, the factors associated with suicide risk were ranked in a relative order of importance (*Table 1*). Older age is present as the leading risk factor; however, the relative risk for suicide is increasing for the younger, multiply addicted. Common to the young and old, alcoholism was then as now a high-risk factor, with concomitant drug abuse further enhancing the risk for suicide.[21]

The presence of comorbid psychiatric disorders among the chemically addicted is associated with a greater prevalence of suicide.[7,16] The most common comorbid psychiatric syndromes are depression, borderline personality disorder, mania, and schizophrenia. Family history of depression, suicide, and alcoholism were prominent in suicide cases.[7,16]

Prior suicidal behavior and recent loss of, or separation from, a loved one are significant predictors of subsequent suicidal behavior. Although depression is a commonly cited risk factor for suicide, it appears that depression associated with alcohol and drug use harbors a greater risk. This may be understandable in light of the dramatic degree of mood and cognitive depression induced by alcohol and drugs. The combination of

alcohol and drugs, particularly multiple drugs, may lead to a profound depression, which in turn can create the hopelessness and helplessness that are central to suicidal thinking and behavior.[23]

EXPLANATIONS FOR SUICIDAL BEHAVIOR

"Hopelessness" is the imminent feeling that appears to precipitate self-inflicted destruction. It correlates highly with suicide and is central to the suicidal state, whether drug-induced or from some other cause.[23] The mind apparently requires hope not only to sustain sufficient mental inertia for survival, but also to avoid self-extinction.[23]

As emphasized, many types of drugs are associated with suicidal behavior. Depressants (particularly alcohol), sedative/hypnotics, and opiates, as well as stimulants such as cocaine and amphetamines are especially likely to produce a sense of hopelessness. The pharmacologic actions of these drugs induce a depression that is similar to depressions from other causes. These are characterized by depressed mood, psychomotor retardation, social withdrawal, guilt, and self-reproach.[9,24] Depressants tend to produce depression during intoxication, whereas stimulants usually produce depression during withdrawal. These drugs of addiction provide a neuropsychopharmacologic model for depression and suicide and may provide insights into mechanisms underlying suicidal behavior.[25]

Other hypothetical explanations of suicidal behavior are that a predisposing personality exists for suicide, and that alcoholics and drug abusers are "self-medicating" an underlying depression or psychosis that is primarily responsible for the suicidal state.[24] Most studies, however, have shown that predisposing personality is not important in determining who will commit suicide.[19] Moreover, studies show clearly that alcoholics use alcohol regardless of an underlying depressive state.[26]

CLINICAL CARE AND TREATMENT

In most instances, the comorbid depression derived from alcohol and drug use will gradually diminish during abstinence. In the alcoholic and drug addict, the depression, paranoia, and anxiety are usually induced by alcohol and drugs, and abstinence from alcohol and drugs is essential. However, the tendency for relapse among alcoholics and drug addicts is high, and specific treatment of the addiction must be instituted.[27]

Generally, hopefulness reappears with prolonged abstinence if specific treatment of the addiction is implemented. The suicidal thinking and behavior usually dramatically diminish with abstinence and treatment of addiction. They may persist, however, during the early months at chronic lower levels because of prolonged pharmacologic effects of the drugs. The degenerated state of the personality and the impaired mental state of the addicted individual play prominent roles.[3,5] Because most of these factors respond to treatment, the suicide risk is low for most alcoholics and drug addicts in early recovery despite the recurring suicidal thoughts. Pharmacotherapy with antidepressants and antipsychotics is not indicated in the majority of cases of chemically induced depression and may actually be harmful in a population vulnerable to drug effects such as sedation, reduced cognition, and altered mood. However, for those instances where imminent, dangerous levels of suicidal thinking may persist, the selective use of antidepressants should be instituted.

In obtaining a history from a known alcoholic or drug addict, a careful inquiry into suicidal state is necessary, including all the known risk factors associated with suicide. The addict may deny both drug and alcohol use, as well as suicidal ideation and behavior, so that a corroborative history from family and

TABLE 2
CHARACTERISTICS OF ALCOHOLICS AND DRUG ADDICTS WHO COMMIT SUICIDE

Age 20s-30s
Sex: Male
Concurrent use of alcohol and multiple drugs:
Amphetamine
Cocaine
Opiates
Sedatives
Mean age of onset of addiction
Mean duration of addiction: 9 years
Chronic use
History of drug overdoses
Comorbid psychiatric syndromes
Borderline personality disorder
Depression
Psychoses
Recent (<6 weeks) interpersonal loss
Childhood history of:
Family financial difficulties
Family suicidal behaviors
Hyperactivity
Incorrigibility
Parental abuse
Family history of:
Alcoholism
Depression
Suicide

friends is important. Suicidal thinking can be assumed to be present in most alcoholics and drug addicts. The clinical necessity is to determine the level of increased risk, especially whether or not suicide is an imminent possibility.

Careful screening for the diagnosis of alcoholism and drug addiction is of critical importance in the setting of a suicide attempt. Unless alcoholism and drug addiction are identified as etiologic or precipitating agents in the suicide attempt and are properly treated, the likelihood for another suicide attempt is high. If only specific treatments for the comorbid psychiatric symptoms are initiated, the sense of hopelessness will persist, as will the serious risk for suicide.

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