Suicide: A Focus On Primary Care

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ABSTRACT

The judgment of the primary care physician is critical in preventing suicide since most mental health care is provided by a primary care doctor. This article will briefly discuss the epidemiology of suicide, then turn to the pragmatic assessment of suicide in the primary care office and treatment issues in patients with elevated suicide risk. Special attention is paid to the risk of suicide with antidepressants because of the recent publicity and the concerns many practitioners have expressed.

INTRODUCTION

The judgment of the primary care physician is critical in preventing suicide since most mental health care is provided by a primary care doctor.[1] About 1.3% of people commit suicide.[2] It is the eighth leading cause of death in United States and the third leading cause in ages 15-24, behind only accidents and homicide.[2-4] Even more disconcerting is the fact that suicide rates overall have not decreased much in the past few decades and the rate has actually increased in children and adolescents. While the overall incidence decreased 7% in the years 1981 to 2000, the suicide rate doubled to tripled for 15-24 year olds from 1983 to 1998.[4,5] These increases led the US Surgeon General to declare suicide a national public health problem in 1999.[6]

Suicide Methods

Despite the fact that 70% of suicide attempts are overdoses, firearms are the most common method of completed suicide across all age groups and genders except children 14 years old and younger.[7-9] Guns are used in about 55% of all completed suicides.[2] In men, the second most common method of completed suicide is hanging, followed by jumping. In women, overdose is the second most common method of completion (Table 1).

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UNDERSTANDING RISK FACTORS AND WARNING SIGNS

Predictions of suicide based on risk factors alone have had only limited success. Pokorny et al studied the prediction of suicide in 4800 VA patients based on 21 risk factors. They classified 803 of these 4800 patients as high risk for suicide. In 5 years of follow up, they found that there were 30 suicides among this high risk group, but that there were 37 suicides among the patients not considered high risk.[10] Another study predicting suicide based on risk factors over 5 years found that 30% of predicted suicides did not happen, and that suicide did happen in 44% of those for whom it was not predicted.[8] Understanding the risk factors for completed suicide must be seen as a limited tool in the clinician's toolbox. They are too numerous to review even with depressed patients. For this reason, a clinician must understand which factors are important enough to actively ask about, and which factors a provider should maintain passive awareness about until they arise (see Table 2).

Past Behavior—Besides current suicidal thoughts and plans, the best predictor of suicide is past attempts.[11] However, more than two thirds of completed suicides are first attempts.[12] Past impulsive behavior may often manifest to a physician as appearing accident prone.[8]

Psychiatric Illness—A major psychiatric illness exists in up to 90% of people who commit suicide.[8] People with mood disorders are 12-20 times more likely to commit suicide than the general population.[13] Surprisingly, however, the lifetime risk of suicide for some other mental illnesses may rival or exceed that of major depression. Early reviews estimated the incidence of death by suicide at about 15% for affective disorders. More recent studies suggest a lifetime suicide risk for affective disorder patients of about 4%-6% (a person with depression with delusions is even more likely to commit suicide), about 7% for alcoholics, and about 4% in schizophrenia.[14-16] About 20% of suicides happen while intoxicated.[8] Twenty percent or more of panic disorder patients attempt suicide.[17]

Medical Illness—More people with HIV commit suicide than with any other medical illness.[18] Besides the illnesses listed in Table 2, other illnesses frequently associated with suicide include head injury, stroke, dementia of any etiology, delirium, Cushing's syndrome, Klinefelter's syndrome, porphyria, peptic ulcer, cirrhosis, dialysis patients, and those taking medications that can cause depression, such as many antihypertensives.[4,8]

Demographic Factors—Women attempt suicide about 4 times more than men, but men complete suicide about 4 times more than women.[4] The same holds true in adolescent boys and girls. This means that a suicide attempt is about 16 times more likely in men to result in completed suicide than in women. In general, the rate of suicide increases from adolescence to old age, but the average age of an attempted suicide is still around 40 years old.[8]

Personal/Social Stress—Divorcees have 4 times the suicide rate of people who are married.[8] Factors besides those listed in Table 2 include chronically stressful family lives, multiple caretakers as a child, unemployment, and high social status or abrupt fall in status.[4,8] Some jobs implicated most often in suicide are physicians and dentists, artists and musicians, police, lawyers, and insurance agents.[4]

Other Factors—Adolescents with a firearm in the house commit suicide 4-10 times more often than those without one.[8] First degree relatives of people who have completed suicide do it themselves 2-4 times more than the general population.[19] Incarceration triples the suicide rate.[4] Besides those listed in Table 2, other important factors include military training, homosexual orientation, and anniversaries of past trauma or past attempts by family or self. Being involved in religion and having care of children under the age of 18 are believed to decrease the risk of suicide.[4]

Recent Warning Signs—Besides risk factors for suicide, a physician should be aware of warning signs. Some important signs include new or increased alcohol and drug abuse, a suicide note, severe decline in work or school performance, new interest in death or themes of death, increasing isolation, giving away personal property, making a will, having no future plans, stockpiling pills, recent acquisition of a weapon, and lack of cooperation with the suicide assessment.

SCREENING FOR DEPRESSION

It is estimated that about half of the people who com-

Table 1. Completed Suicide Methods by Age and Gender Most Common to Least Common

10-14 year olds	hanging/suffocating, guns
15-19 year olds	guns, hanging/suffocating
Men	guns, hanging, jumping
Women	guns, overdose
Elderly	guns

Table 2. Risk Factors for Suicide

Past Behavior
*Past suicide attempts
*Parasuicidal acts
Past impulsive behavior
Psychiatric Illness
*Major depression
*Bipolar
*Substance abuse
*Schizophrenia
*Panic/anxiety disorders
*Personality disorders, especially antisocial, borderline, narcissistic, paranoid
Medical Illness
*HIV
Seizure disorder
Cancer
Lupus
Multiple Sclerosis
Huntington disease
Chronic pain
Disfigurement
Loss of mobility
Demographic Factors
*Elderly
Men
White/Native American
Immigrants
Personal/Social Stress
*Homeless
Isolated, few friends
Live alone
Widowed or divorced
Loss of job or loved one
Financial stress
Abused recently or as a child
Other
*Access to guns
*Family or friend with history of suicide attempt
*Incarceration
No religious involvement
Insomnia

*=most important

mit suicide saw a physician or another health provider within the month prior to doing it.[12] Given this fact and the high prevalence of depression, primary care doctors should screen patients who manifest symptoms suggestive of depression. This screen is vital in the presence of the following risk factors: any psychiatric illness, any of the medical illnesses listed in Table 2 under risk factors, a history of suicide attempts or parasuicidal acts, being elderly (especially elderly men), being homeless, recent divorce or loss of job, being incarcerated, being victims of abuse, and any history of friends or family attempting suicide.

ASSESSING SUICIDE IN A DEPRESSED OR SUICIDAL PATIENT

Assess the Extent of Depression, then Suicidal Thoughts, Moving from General to Specific—It is a myth that broaching the topic of suicide plants the seed of patients actually considering it; in reality patients at risk for suicide often feel relieved to talk about it. Start with questions about general depression symptoms, e.g. frequency of sad mood, loss of interest, energy, and concentration. Then approach the assessment of suicidal thoughts with general questions, gradually becoming more specific. For example, start by asking patients if they have felt that their life is not worth living or if they have felt hopeless or worthless. From there proceed to asking if they have wished they were not alive, if they have had thoughts about killing themselves, how they would do it, if they have made a plan, whether they believe they would resist the impulse to do it or not, and what has kept them from doing it. Ask about recent or past suicidal gestures, e.g. have they ever hoarded medications, procured or grabbed a gun or knife while suicidal, or sat in a car in a garage thinking about it.

Do a Complete Mental Status Examination—Include thoughts of harming or killing others, hallucinations, and paranoia. The most concerning mental status findings for suicide besides suicidal thoughts/plans and appearing despondent include command hallucinations (voices telling them to kill themselves or others), paranoid delusions (the most dangerous psychotic symptom), hopelessness, agitation or restlessness, obsessive violent thoughts, and being more detached and quiet in someone who has attempted suicide or has had suicidal thoughts in the past.

Screen for Bipolar Disorder—Missing the diagnosis of bipolar can have fatal consequences, as giving an antidepressant to a depressed patient who actually has bipolar disorder can lead to mania, psychosis, agitation, and can ultimately precipitate suicide.

Inquire about the Presence of Important Risk Factors—As stated before, it would be impractical to assess all risk factors for suicide. However, the most important factors should be screened in a depressed or suicidal patient. To cover these factors, physicians should:

- Screen for other major psychiatric illness. Besides screening for bipolar disorder, also screen for alcohol and drug abuse, psychotic symptoms, and panic and anxiety in general.
- Inquire about past suicide attempts and times they have come close to attempting.
- Inquire about recent stressors and losses and the social supports available to help cope with the stress. Ask about the stability of their marital status, employment/income, and living situation. Ask if any family or friends have ever attempted suicide.
- Ask about a history of abuse.

TREATMENT ISSUES IN PATIENTS WITH ELEVATED SUICIDE RISK

Familiarize yourself with how to access emergency psychiatric services and hospitalization, and know the relevant legal guidelines for involuntary hospitalization in your county and state. Instruct the patient to call you for help when reaching the point of uncertainty about their ability to control suicidal impulses.

Consider Ways To Diminish Stress And Mitigate Risk Factors—Encourage any person with depression or thoughts of suicide to give up custody of their firearm, and to do so permanently in cases of recurrent depression.

Refer Patients To A Mental Health Professional as Appropriate—A general rule should be to refer any patient for whom you have significant concerns about suicide.

MEDICATIONS IN SUICIDE PREVENTION

Guidelines for using medications in suicide prevention include the following.

- Use non-lethal medications as much as possible. This is one of the main reasons for using selective serotonin reuptake inhibitors (SSRIs) before tricyclic antidepressants (TCAs).
- Prescribe medications in limited amounts because suicide is an impulsive act and individuals generally take the pills immediately available.

Do Antidepressants Decrease or Increase the Risk of Suicide?

Episodes of increased suicidal behavior associated with

antidepressant therapy have been reported in the psychiatric literature for a long time. However, it has been difficult to differentiate increased risk because of antidepressant use from the increased risk due to depression itself, although some theories exist.[20]

Recently, the risk of suicide with antidepressants in youth has received considerable publicity. On February 2, 2004, the FDA ordered pharmaceutical companies to publish warnings about suicide risk from antidepressants in children and adolescents. Almost all newer generation antidepressants were mentioned, including fluoxetine, sertraline, paroxetine, citalopram, escitalopram, fluvoxamine, venlafaxine, mirtazapine, nefazodone, and bupropion. The recommendation was somewhat soft, with the FDA stating, "It is not yet clear whether antidepressants contribute to the emergence of suicidal thinking and behavior."[21] More recently, in September 2004, the FDA announced that the advisory committee it had appointed recommended a "black box" warning "for suicidality in pediatric patients for all antidepressant drugs."[22]

The evidence behind this request, which points to increased risk of suicide with antidepressants in youth, has consisted mainly of case reports. Additionally, in July 2003, GlaxoSmithKline (GSK) introduced a warning regarding suicide with paroxetine use in children and adolescents. In GSK's pediatric clinical trials, the incidence of "suicidal thinking, suicide attempts or self-harm" was 5.3% (378 patients) for paroxetine vs. 2.8% (285 patients) for placebo in depression studies, and 2.4% (165 patients) for paroxetine vs. 0% (157 patients) in social phobia. There were no completed suicides in these studies.[23]

In the United Kingdom, the reaction against using SSRIs has been even more intense, as, in 2003, the Healthcare Products Regulatory Agency stopped the prescriptions of any SSRIs to youth. David Healy, director of the North Wales Department of Psychological Medicine, has reported that he has seen the results of GSK's trials of antidepressants in youth and stated that there is 3 times more suicidality in paroxetine compared to placebo when unpublished results are included.[24]

The FDA's recommendation has not been without opposition. In January 2004, the American College of Neuropsychopharmacology's Task Force on SSRIs and Suicidal Behavior in Youth concluded that, "taking SSRIs or other new generation antidepressant drugs do not increase the risk of suicidal thinking or suicide attempts." The task force cited the fact that in over 2000 pediatric patients in clinical trials for all 5 SSRIs there was no increase in suicidal thinking or actions, none of the 2000 died, that the suicide rate in this age group decreased since the advent of SSRIs, and that toxicology reports have shown that suicide in a youth prescribed an SSRI is more likely if the drug is not taken than if it is taken.[25]

While there is some evidence that antidepressants increase suicidal behavior in youth, numerous studies have concluded that antidepressants do not increase rates of suicide in adults. Beasley et al, in a 1991 meta-analysis of 17 double blind clinical trials, found no difference in the incidence of suicide between fluoxetine, TCAs, or placebo. Pooling data from the 17 trials (1765 fluoxetine patients, 731 TCA patients, 569 placebo patients), they found that the incidence of suicidal acts for fluoxetine vs. placebo was 0.2% vs. 0.2% respectively, and 0.7% vs. 0.4% for fluoxetine vs. TCAs. There were also no differences in "worsening of suicidal ideation" with fluoxetine and placebo (15.4% vs. 17.9% respectively) or between fluoxetine and TCAs (15.6% vs. 16.3% respectively). This is important because worsening of suicidal ideation with antidepressants has been the criticism in many case reports. Additionally, the emergence of suicidal thoughts happened less often in fluoxetine vs. placebo (0.9% vs. 2.6%, P=0.0904) and less often in studies of fluoxetine and TCAs (1.7% vs. 3.6%, P=0.102).[26]

In a 2003 study, Khan et al wanted to focus on antidepressants and completed suicides since previous studies had only focused on suicide attempts or actions. They reported on the FDA summary reports of 9 antidepressants (pooled data included 48,277 patients). The suicide rates of SSRIs vs. other antidepressants vs. placebo was not significantly different (0.59% vs. 0.76% vs. 0.45%, with respective 95% confidence intervals of 0.31%-0.87%, 0.49%-1.03%, and 0.01%-0.89%).[27]

Other Psychotropic Medications in Suicide Prevention. Though not commonly used by primary care providers, lithium and clozapine deserve a brief mention. Many studies have shown lithium to help prevent suicide in bipolar disorders.[28-31] A very large retrospective cohort study of 20,638 patients published in 2003 added more evidence. Goodwin et al studied bipolar patients given lithium, divalproex, or carbamazepine. There were 2.7 times more suicide deaths in the patients on divalproex than those on lithium (P=.03).[32] Clozapine has an indication for suicide prevention in schizophrenia (and schizoaffective disorder). In a 2-year prospective controlled study of 980 patients, only 34 patients on clozapine attempted suicide while 55 patients on olanzapine attempted (P=.03).[33]

CONCLUSION

Suicide is relatively common in our society and has in-

creased in children and adolescents in recent decades. The use of firearms is the most common method of completed suicide across all ages and genders except youth 14 years old and younger, making prevention of access to firearms a primary goal in suicide prevention. Three critical factors in preventing suicide include understanding suicide risk factors, screening for depression as appropriate, and effectively assessing for suicide in depressed and mentally ill patients. Physicians should refer to a mental health professional any patient for whom they have significant concerns about suicide. There are effective treatments for suicidally depressed patients, both psychopharmacologic and psychotherapeutic and some patients may require hospitalization. Almost all of the numerous studies of suicide with antidepressants in adults conclude that, overall, adults are not at more risk of suicide with antidepressants. It is, however, possible that the negligible effect of antidepressants on suicide in adults in these studies may represent a combination of causing some suicides in addition to preventing some suicides by treating depression. When treating children and adolescents, there is more evidence supporting an increase in suicidal behavior with antidepressants and extra care must be taken to monitor for increased suicidal behavior.

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