

SUICIDE: RISK ASSESSMENT AND MANAGEMENT

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INTRODUCTION

It is not surprising that having a suicidal client raises anxiety in clinicians. Most malpractice cases against psychiatrists arise from the failure to prevent suicide. These cases also account for the highest percentage of settlements and verdicts paid by malpractice carriers. And while there has been an enormous amount of space in the professional literature devoted to the topic, uncertainty reigns as to what constitutes a legally and clinically adequate approach to the suicidal patient.

This booklet presents the latest available data regarding risk factors for suicide, our understanding of suicidal behavior, and the best clinical practices regarding suicide risk management.

Disclaimer:

The author is not on any pharmaceutical advisory boards and does not receive research support from the industry. Every effort has been made to assure there are no errors in this publication, but this guide should not be used as a sole source of information for diagnostic or treatment purposes.

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CONTENTS

Guidelines for a Brief Suicide Risk Assessment	4
Demographics	7
Epidemiologic Risk Factors	8
Non-Epidemiologic Risk Factors	12
Doing a Suicide Risk Assessment	15
Prevention of Suicide	17

Special Topics

Antidepressants and Suicide	22
Biological Markers	23
Self-Injurious Behavior	23
Children	28
Adolescents	29
Handguns	37
College Students	37
Older Adults	38
Alcoholic/Substance Abusers	40
Bipolar Disorder	40
Borderline Personality Disorder	41
Depression	42
Schizophrenia	43
The Correctional System	44
Medical Illness	47
Inpatient Units	48
Legal Liability	49
Occupation	51
Surviving a Suicide	52

BIBLIOGRAPHY	53
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Guidelines for Suicide Risk Assessment

All clinicians desperately want some sort of guideline that will determine suicide risk in their clients. The truth is that such a guideline does not currently exist, and will probably not exist in the future until a new avenue of research uncovers a brain scan, or blood test, or epigenetic marker that can tag an individual as likely to act on suicidal impulses. Such a marker must take into account conscious and unconscious motivations, biological vulnerabilities, and environmental history and current circumstances. There is nothing simple about trying to anticipate human behavior, especially during a crisis. And given the statistical rarity of suicide, it is very difficult to set up the kind of experiments that would reveal any of the above markers.

In the meantime, suicide rates continue to increase in the United States despite our best efforts at prevention. Sometimes suicide is the outcome of a long period of mental illness, like depression or substance abuse. Other times, it is not clear why a suicide occurs. Most suicide deaths happen on the first attempt in men, 30-55, who are not involved in the mental health system. We don't know much about them, except they didn't ask for help. This is a public health problem. But so far, efforts to educate the public and destigmatize mental health treatment have not demonstrated efficacy.

The current "gold standard" for measuring suicidal ideation and behavior is the Columbia-Suicide Severity Rating Scale (C-SSRS.) In 2012 it was identified as the preferred instrument for measuring suicidal intention and behavior in clinical trials by the Food and Drug Administration. The website lists supporting research and offers free training, as well as downloads of the various instruments. The C-SSRS is not universally lauded, however. Some authors believe it is conceptually and psychometrically flawed (Giddens J et al. 2014.) In any case, there is no claim that the C-SSRS can predict who is going to die of suicide and who is not. A recent review in the *British Journal of Psychiatry* (Quinlivan L et al. 2017) concluded, "(Suicide) risk scales...have limited clinical utility and may waste valuable resources. Most scales performed no better than clinician or patient ratings of risk...and should not be used to determine patient management or predict self-harm."

Doing Risk Assessments

Risk assessment is a process in which the clinician gathers information about an individual in a specific set of circumstances, and applies what is known from the research literature as appropriately as possible. There is no standard of care to follow in doing suicide risk assessments as of yet, but there is a strong clinical consensus that the best practice for suicide risk assessment involves a combination of structured assessment data (like the C-SSRS), a clinical interview, and clinical judgement. It is essential to remember that using a form alone is not an adequate assessment.

Using a Risk Assessment Form

More and more agencies are using standardized forms to document suicide risk assessments. No two are alike, and every agency creates their own based on their review of the risk assessment literature, or out of thin air. Often, clinicians are asked to make a determination as to whether the patient is at high, medium, or low risk. Sometimes a numeric score is used to classify the risk.

The numeric scores give an illusion of precision that can be quite misleading. A plaintiff's attorney would make short work of discrediting any attempt to use such a form as a scientific defense.

Legally, the clinician's duty is to perform a competent suicide risk assessment. The standard of care does not require the use of a form, but a form may be part of an assessment, as long as there is evidence that the clinician has also taken the time to get to know the patient, and interpreted the results of the form in the context of what the clinician has learned about the patient using competent, clinical judgment (Simon R 2009.)

A Brief Suicide Risk Assessment

In thinking about suicide risk in an individual, it is helpful to make a distinction between suicide risk factors (static characteristics derived from epidemiological studies of large groups of people) and warning signs (proximal cues that a crisis is unfolding.) For instance, male gender, previous suicide attempt, and a history of a mental illness are important risk factors, but most people with these features are not suicidal. Warning signs such as saying goodbye to loved ones, insomnia with psychic anxiety, and recent suicidal behavior indicate a possible emergency situation. Risk factors make warning signs more ominous. The following makes use of this distinction:

Five Risk Factors, Five Warning Signs, Five Steps

Five Risk Factors

- 1) Previous attempt, self-injury, exposure to violence, impulsive aggression
- 2) History of mental illness or substance abuse (recent diagnosis may be worse)
- 3) Social isolation, loss, stress
- 4) Family history of suicide, suicide in a friend, loved one
- 5) White or Native-American male

Five Warning Signs

- 1) Suicidal intention (rumination, planning, preparation, means, giving things away, saying goodbye, writing a will, etc)
- 2) Sudden change in mood for no known reason – better or worse, or increase in substance use
- 3) Anxiety, agitation, insomnia, despair, hopelessness
- 4) Burdensomeness, thwarted connectedness
- 5) Poor or sham treatment alliance

Five Steps for Making the Assessment

- 1) Ask about suicidal or self-injurious behavior or violence – past, present. Look for suicidal intention.
- 2) Assess mental state – history, treatment, present
- 3) Assess social connection and stressed – exposure to violence, losses, isolation, burdensomeness, social support
- 4) Explore treatment alliance – help acceptance or negation, contracting for safety, attitude about treatment, reliability
- 5) Make a plan – determine safe treatment setting, address risk factors and warning signs, bolster protective factors, communicate with others who need to know the plan, assess feasibility, document, get consultation if needed

What to Do Next

Clinicians often get stuck at step 5 above. Some settings try to make the plan part of the assessment, depending on whether the person is high, medium, or low risk. Suicide risk is much too complex for that kind of approach. For instance, is a person with

daily suicidal ideation and substance abuse, but with stable housing and a good treatment relationship at high risk or medium risk or less? In a model used by clinicians at the Rocky Mountain Mental Illness Research, Education, and Clinical Center, suicide risk is determined using a two-dimensional risk stratification that determines severity and acuteness vs. chronicity. A person might have high chronic risk or low acute risk for example (Nazem S et al. 2016.) The treatment plan should arise out of the specific kind of risk that the person presents. Safety plans, outpatient and inpatient plans, referrals, crisis home utilization, and so forth are all amply described in the literature. See the following website for a more in-depth description of safety planning:

www.mentalhealth.va.gov/docs/va_safety_planning_manual.pdf

DEMOGRAPHICS

(American Foundation for Suicide Prevention)

Suicide is the 10th leading cause of death nationally - 44,000/yr. More people kill themselves each year than are murdered, or are killed in war, or die automobile accidents. 60% of suicide deaths are on the 1st attempt. Suicide rates are increasing, especially in rural areas.

Suicide Rates per 100,000 people (CDC, 2014)

United States:	13.26 (men 20.59, women 5.67)
New York	8
Wisconsin (~700/yr.)	14.6
Wyoming	28.2
By Age	
5-14	0.7
15-24	10.5
25-34	14
35-44	16
45-54	19.6
55-64	17.5
65-74	13.9
75-84	15.7
85+	17.6
Prison inmates	15
Jail inmates	47
D/Widowed males >65	100

Depression Diagnosis	240
Recent Suicide Attempt	1000

EPIDEMIOLOGIC RISK FACTORS

Epidemiology defines a “high risk group” of people by certain common characteristics. The usefulness of risk factors is somewhat problematic, since these “risk factors” do not predict suicidal behavior. Instead, they should be thought of as intensifiers of risk when warning signs are present.

Gender

Gender differences in suicide deaths complicate attempts to understand suicide risk. Women have low suicide mortality, but a higher incidence of the two most significant risk factors – depression and suicide attempts. Most of our data about risk factors pertains to older white or Native-American males, since the number of suicides in these groups overwhelms all other numbers. Efforts to generalize between the genders can be misleading. Risk factors such as increasing age, single marital status, physical illness, stressful life events, unemployment, and low socioeconomic status apply only to men (Gold L 2005.)

The reason for this gender difference is not known. It is suggested that in men, higher rates of substance abuse, violence, and a greater social expectation that a real man will “succeed” in a suicide attempt contribute to men using more lethal means than women. In contrast, women tend to exhibit more help-seeking behavior, have more social connectivity, have more “permission” to make non-fatal attempts, and may assume more responsibility for the feelings of children and family members (Gold L 2005.)

In a recent attempt to investigate how gender and clinical risk factors interact, investigators (Oquendo M et al. 2007) found the following differences in risk factors:

Males: conduct disorder, substance abuse, financial problems, psychosis, “brittle” personality, family history of suicidality, early parental separation

Females: mood and anxiety disorders, PTSD, prior attempts, hostility, low score on Reason for Living Inventory

Ethnicity

(Welton R 2007, Mann J Currier D 2007, McKenzie K et al. 2003, Garlow S et al. 2005):

White males account for 72% of all suicide deaths. This is 4x the rate of women, higher if they are single and never married. Men are more likely to use firearms and abuse drugs/alcohol. The murder/suicide rate is much higher for men, especially for sexually jealous young men and elderly men with ailing spouses. There are 2,000 murder/suicides a year. 90.4% of perpetrators are men. Men are generally more socially isolated than women. Marriage protects men from suicide more than it does women.

White females account for 17% of all suicides, although there is more depression in women and 3x as many suicide attempts. They are protected from suicide by being less impulsive, more socially embedded, having responsibility for young children, having less substance abuse, and choosing less lethal means. They may use suicidal behavior as a way to communicate with others.

Non-white males account for 7% of all suicide deaths. Non-white females account for 2%. African-American men are half the rate of Caucasian men. Risk factors for African-American men include:

- Younger than 35

- Midwest, Southeast, Northeast

- Single and never married

- Urban

- Less than high school education

- Firearms present in home

- Attended church, exercised, talked on the telephone regularly

- Used cocaine, but not immediately before suicide

- Less likely to be on an antidepressant

- Made violent threats to others - community complained about them

- Did not express worthlessness or act suspicious

- Experienced death or serious illness of close family member

- Expressed the wish to die and spoke about suicide

(Willis L et al. 2003)

Native Americans have twice the rate of suicide death as white males, although the absolute numbers are low.

Hispanic Americans die at half the rate of white.

Rates for Chinese and Indian women apparently are higher than men.

Age

Rates rise in the US from 10-24, plateau, then rise again after 70 for white men only. In African Americans, Native Americans, Hispanic, and Native Alaskan men, rates peak in young adulthood to a level comparable to whites, then fall. A recent analysis from the CDC shows that the suicide rate for persons aged 35-64 has increased 28.4% during the 1999-2010 period (CDC (MMWR), May 3, 2013). The reason is unexplained, but may be due in part to economic factors and the aging baby-boomer demographic.

Marital Status

For men, suicide risk doubles if you are single, 4-5x higher if divorced, widowed, or separated. Homosexuals have more psychopathology, more attempts, and may or may not have a higher death rate (McDaniel J et al. 2001.)

Family History of Suicide

Studies of suicide deaths show a higher concordance rate for monozygotic vs. dizygotic twins, indicating genetic influence. A first-degree relative of a suicide victim is 3.5x more likely to die of suicide. Suicidal behavior may be transmitted independently of Axis I and II disorders, and the transmission of suicidal and impulsive aggressive behavior is related (Qin P et al. 2002, McGirr A et al. 2009.) Recent studies indicate that the genetic contribution to suicide accounts for about 50% of the variance, suggesting that the nongenetic family transmission of abuse, especially sexual abuse, and adverse family environments are also significant factors (Brodsky B, et al. 2008, Bebbington P, et al. 2009.) A recent study found a 5x greater risk of suicidal behavior in the offspring of a parent with a suicide attempt (Brent D et al. 2015.)

History of Mental Illness

The lifetime risk of suicide by diagnosis, shown by percentage of deaths and relative risk (Baldessarini R 2003):

General population	0.72%	1.0
Prior suicide attempt	27.5%	38.4
Bipolar Disorder	15.5 %	22.1
Depression	14.6%	20.4
Mixed drug use	14.7%	19.2

Dysthymia	8.65%	12.1
Obsessive compulsive	8.15%	11.5
Panic disorder	7.15%	10.0
Schizophrenia	6.05%	8.45
Personality Disorders	5.05%	7.08
Borderline 8-10% (risk increases with number of attempts, comorbid antisocial personality, impulsivity and substance abuse)		
Alcohol abuse	4.20%	5.86
Cancer	1.3%	1.80
Mental Retardation		<1.0
Eating Disorders		>1.0
ADHD	unknown	
Childhood abuse	unknown, maybe 10x rate?	

95% of people who die of suicide have a history of Axis I mental illness. 40-60% have an affective disorder (50% are not in treatment and <5% on adequate doses of antidepressants), 25-50% have an alcohol related diagnosis, and 50% have a comorbid personality disorder.

In the mentally ill population, age and gender are less important variables. With the exception of substance abuse, suicides occur early in the course of the disorders before clients have developed insight or patterns of treatment adherence (Jacobs D, et al. 2000.)

Trauma

The effect of trauma on suicidal behavior found that different kinds of trauma led to different consequences (LeBouthillier et al. 2015.) Suicidal behavior was highest following maltreatment in childhood, physical assault, being kidnapped or held hostage. There was a linear relationship to the number of traumatic events.

Recent Discharge from a Psychiatric Facility

A meta-analysis of 50 years of data found that all patients discharged from psychiatric facilities, whether they were suicidal or not at admission. They showed suicide rates from 30 to 200x that of the general population. The suicide rate is highest in the three months after discharge (*JAMA Psychiatry* Online, May 31, 2017)

Newness in a Treatment Program

Two years of data in Wisconsin show that among clients in community programs, 63% of suicides occur within the first year in

the program, 27% in the first month (Mays D 2004.) Is this related to the fact that most suicides occur soon after hospitalization?

Natural/Unnatural Disasters/Social

Suicide rates increase 63% in the year following an earthquake, 14% for four years following a flood, 31% for two years following a hurricane. Rates are high during economic depression, low during war. States that spend more on welfare and on federal aid for mental health have lower suicide rates (Tondo L, et al. 2006.)

The Media

There is an increase in suicides when:

- 1) The number of media stories about individual suicides increases.
- 2) A particular death is reported at length or in many stories.
- 3) The story of a suicide death is placed on the front page or the beginning of a broadcast.
- 4) The headlines of a suicide death are dramatic.

The media should:

- 1) Discourage readers or viewers from identifying with the suicide victim by not romanticizing the suicide or idealizing the person
- 2) Not describe the method in detail
- 3) Not describe the act as inexplicable in an otherwise healthy person
- 4) Not dramatize the impact on relatives, teachers, classmates
- 5) Not use adolescents to talk about their suicide attempts
- 6) Not romanticize celebrity suicides

(Reporting on Suicide: Recommendations for the Media, www.afsp.org)

NON-EPIDEMIOLOGIC RISK FACTORS

Characteristics of Severe Suicide Attempters (Hall R 1999)

92% had severe anxiety

92% had partial insomnia

84% had no plan

83% had seen a caregiver in previous month

80% had panic attacks

80% had depression

78% had conflicted relationship with someone close to them

69% had no or fleeting ideation

68% had problems with substance abuse

67% first attempt

64% hopelessness

28% had been asked about suicidal behavior or emotional state

The above list illustrates the importance of impulsivity in suicide. (84% had no plan.) Impulsive suicides tend to choose firearms, jumping, and hanging as their methods, since they are easily available, quickly. Unfortunately, these methods are also the most lethal (Anderson S 2008.) A recent study suggests that the nature of the impulsivity may be an important aspect of suicide risk. If impulsivity is thought of as a combination of urgency, lack of perseverance, lack of premeditation, and sensation seeking, it is possible to distinguish different types of impulsivity related to different risks. Specifically, urgency may differentiate those with suicidal behavior from those without, and lack of premeditation separates attempters from ideators (Klonsky E, May A 2010.)

Suicidal Behaviors

Suicidal ideation The significance of suicidal ideation is quite variable. Suicidal ideation is relatively common. According to the National Comorbidity Study (Kessler R, et al 1999), the lifetime prevalence for suicidal ideation is 13.5%, or 5,000,000 people/yr. 34% of those thinking about suicide will go on to make a plan. 26% will make an unplanned suicide attempt. Only 0.5% will go on to die of suicide. Furthermore, since substantial numbers of people who make severe suicide attempts deny having had suicidal ideation, it is clear that suicidal ideation is an unreliable marker of safety in its absence or risk in its presence. It may be more of a long-term risk indicator by revealing an individual who is prone to thinking of suicide when in a stressful situation. In any case, the assessment goal must be to distinguish between suicidal ideation and suicidal intention, and not rely solely on the clients report of "suicidal ideation."

Suicide planning The lifetime prevalence is 3.9%. There is a 72% chance a planner will go on to make an attempt. But 90% will not die by suicide. Plans should be evaluated regarding the lethality of the method.

Suicide attempt The lifetime prevalence is 4.6%. Of attempters, 39.3% made a serious attempt, 13.3% made a less serious attempt, and 47.3% were "making a cry for help." Between 18-38% of those who die of suicide have made a previous attempt (Gold L 2005.) The

risk of suicide increases with each attempt. 10% of attempters go on to die of suicide, but generally not within a year of the attempt. Therefore, this is a long-term risk factor that represents a chronic situational risk. It represents acute risk only for women (Jacobs D et al. 2000.)

Suicide communication 55% talked about suicide within a month of their suicide. (45% did not!) But 73% of people who died of suicide did not mention suicidal intent or ideation during their last contact with a mental health professional. Those who mentioned suicide averaged 3 communications to others: 60% to spouses, 50% to relatives, 18% to caregivers. Communication of suicidal ideation may be more of a long-term risk factor (Jacobs D et al. 2000.)

Mental State

(Hendin H et al. 2007, Fawcett J et al. 1990, Hall R et al. 1999, LaRicka R et al. 2004)

Strong, unpleasant emotions

Anxiety/panic -This includes ruminations with an obsessive quality, often guilt ridden and agitated

Despair

Hopelessness

Loss of control, feeling trapped

Anger

Shame, being a burden

Lack of perspective on the present situation

Watch out for sudden and unexpected improvement in previously ill, suicidal clients, especially inpatients. Most improvement tends to happen gradually as the result of a process of recovery. Rapid improvement in patients who restrict access to collateral information, have only superficial contact with treaters, and does not appear to have a true treatment alliance with the therapist are likely demonstrating a “flight into health,” and are trying to manipulate more freedom, possibly for another suicide attempt (Simon R, Gutheil T 2009.)

Social/Environmental

(Hendin H et al. 2001, Mann J, Currier D 2007, Welton R 2007)

Losses

Single marital status/ isolation, especially in men

Lack of social support, belonging

Life dissatisfaction

Strong religious belief and responsibility for children may be protective

Biomarkers

(Oquendo M et al. 2014, Guintivano J et al. 2014)

A number of biomarkers have been found that are implicated in suicidal behavior. Most of them are linked to altered stress response, and none of them are of practical use. Most recently, an epigenetic marker (methylation) on the *SKA2* gene was found to be involved in suicide death, and suicide attempts in a number of subjects. There is hope that if this finding can be replicated, a simple blood test can be developed that could be used as part of a suicide risk assessment.

The Interpersonal-Psychological Theory of Suicidal Behavior

Thomas Joiner of Florida State University has developed a theory of suicidal behavior that proposes that a person will not die of suicide unless there is a desire and a capability (Joiner 2005). The desire for death consists of two psychological states: seeing themselves as a burden to others, and feeling alienated from others. The capability of suicide requires developing fearlessness of pain, injury and death. That may come from repeated instances of self-injury or physical violence. These may be important non-epidemiological risk factors for some suicides.

DOING A SUICIDE RISK ASSESSMENT

Clinicians should utilize a combination of evidence-based data and clinical impression to determine suicide risk. Risk assessments need to be repeated over time, based on client response to intervention and changes in the client situation. Assessments should include the following:

1) Identification of risk factors, warning signs and protective factors: warning signs and risk factors have already been described. Protective factors have not been clearly investigated, but probably include environmental supports, ethical beliefs, future thinking, sense of purpose, coping skills, etc.

2) A skillful interview: Ask about suicide directly, but with tact. “How bad do you feel?” “Have you had thoughts of hurting

yourself?” “How close have you come to hurting yourself?” may elicit more information than “Are you suicidal?” In some cases, it may elicit more information to assume the person is suicidal and start from there with the questions: “I know you must be thinking about suicide. Tell me what is going through your mind.” Don't worry about putting the idea of suicide into someone's head.

Dr. Shawn Shea (1998) has written about the interview techniques involved in doing reliable interviews. He combines a chronological structure in his interviews with specific interview techniques to elicit an accurate picture of how the suicidal client is feeling. This is called the CASE approach (Chronological Assessment of Suicide Events.) The chronology is:

- 1) presenting suicidal behavior - precipitating event, plan, behavior, what stopped the plan, attitude now about what happened.
- 2) recent (6-8 week) suicidal behavior - plans, attempts, how much time has been spent thinking about suicide?
- 3) past suicidal behavior - how many attempts, what was the most serious, the most recent?
- 4) immediate suicidal behavior and plans for the future - what would you do if the suicidal thoughts returned tonight? Are you making plans now?

The problem of the clinical interview: Clinicians rated on their ability to accurately empathize with their patients frequently miss how desperate their patients are. This is a crucial empathic failure (Jobes D 1995.) In addition, 77% of clients in their last interview will deny suicidal ideation. Why? They either do not have such ideation, they are misleading the therapist, or the interview itself is an inaccurate reflection of how the client is doing. For example:
Communication failures of client: lying, denying, minimizing, sparing, alexithymia (Apter A, et al. 2001)

Communication failures of interviewers: denying, minimizing, anxiety, empathy failure

Communication failure of the interview process: using the interview as a treatment intervention, thereby creating a temporary and misleading hope in the client and alleviation of anxiety. The client may become suicidal again after leaving the safety of the interview, while the clinician believes he/she is still safe (Mays 2004.)

3) Collateral information, especially from significant others: They hear the threats. Confidentiality is not an issue in an emergency. In any case, it is better to be sued for breach of confidentiality than have a patient die of suicide. Just document what you are doing and why.

4) A treatment plan which includes a determination of treatment setting: Make sure that the plan is one that can be implemented and the patient is capable of following it.

5) Clear documentation: The quality of the documentation often determines whether or not a malpractice attorney accepts a case. Unfortunately, poor documentation is the rule, rather than the exception in cases of suicide death (Simon R 2006.) Poor documentation makes defending oneself in a lawsuit more difficult.

Notes do not have to be, nor should they be overly lengthy, but they should meet the following guidelines (Ballas C 2007):

- 1) The most important part of the note is the assessment section. A reader needs to know what you were thinking and why you did what you did. Do not expect the reader to “read your mind,” e.g. infer that a patient is future oriented because he talked about enrolling in school next semester. Say what you are thinking.
- 2) Use direct quotes whenever possible. (The patient said, “I would never kill myself because of what it would mean to my children.”)
- 3) Your plan should match your assessment. Explain why you did what you did and why you didn’t do what you didn’t do (hospitalize.) It is fine to mention least restrictive environment concerns.
- 4) Document your consultations and family contacts.
- 5) Write what you wish you would have written if there is a bad outcome.
- 6) Never change a medical record after the fact. If you need to make an addendum, clearly indicate when it was written.

PREVENTION OF SUICIDE

Few interventions have been shown to reduce suicide in well-conducted randomized trials. There is no evidence so far that public awareness campaigns or other broad-based community programs affect those who are most at risk for suicide (Goldney R, Fisher L 2008, Dumesnil H, Verger P 2009.) There is not enough evidence that using suicide screening tools in primary care practice would have benefit (US Preventive Services Task Force, 2013.) The strongest

evidence from the clinical data for suicide prevention is (Mann J et al. 2005):

- 1) the use of the drug lithium in a mood disorder, and the antipsychotic clozapine in schizophrenia or schizoaffective disorder. Valproate may also be protective (Oquendo M et al. 2011.)
- 2) physician education in depression recognition and treatment
- 3) restricting access to lethal means may be useful for both impulsive and premeditated suicide

In addition, to date, one randomized, controlled study has shown a significant difference in suicide rates. This study utilized a schedule of regular communication (contact letter) with 3,005 patients discharged from a hospitalization due to depression or suicidal behavior. These contacts continued for 5 years. Differences occurred during the first 2 years (Motto J, Bostrom A 2001.)

A number of controlled studies have shown that psychosocial treatments, especially cognitive behavior therapy can reduce self-injurious behavior. Only studies with Dialectical Behavior Therapy have been replicated. These studies reveal the following (Comtois K, Linehan M 2006):

- 1) Treatments must directly address suicidality and self-injurious behavior as their focus.
- 2) Noncompliance with treatment must be addressed.
- 3) Inpatient treatment, even brief hospitalization, has never been found efficacious in preventing suicide in a clinical trial.

Also important is the cultivating of a treatment relationship. A recent review of the literature explores the difficulties of engaging suicide attempters in treatment (up to 50% will refuse treatment or drop out very quickly. 25% will make another attempt.) Developing strategies for collaborating with these patients is critical. Motivational interviewing techniques, involving significant others, and outreach contact are promising interventions (Lizardi D, Stanley B 2010.)

Longitudinal studies show that suicide risk tends to be long-term for many. Adolescent suicidal ideation among 346 subjects predicted suicidal behavior at 30 years old (Reinherz H et al. 2006.) Studies from New Zealand and Great Britain confirm that in most instances, suicidal behavior is best viewed as a chronic condition “embedded in long-term psychiatric illness and lifestyle problems” (Jancin B 2006.) A crisis intervention approach is not adequate. Longer-term interventions are necessary.

In the short term, the following interventions seem reasonable:

1) Inform the client and family that he/she is at risk for suicide.

Provide education about the diagnosis and treatment. Educate the client about the lack of perspective that occurs in depression. Enlist the help of significant others. Don't promise confidentiality.

2) Provide an atmosphere of safety and support. Establish a therapeutic alliance. Be firm, but supportive and empathic. Daily meetings may be necessary. Take a positive, unambiguous stand - provide hope. Suicidal clients are ambivalent. Problem solve with the client.

3) Treat the underlying psychiatric disorder aggressively. Assure adherence to treatment.

4) Insist on removing firearms or lethal quantities of medication. Guns in the home are associated with a 5x greater risk of suicide. Firearm suicide attempts end in death 85% of the time. It takes less time to reach for a loaded gun than any other suicide method. 57% of suicide deaths are by gunshot. 40-50% of all US households have firearms, most of those more than one. There is no safe storage of a gun in the home of a suicidal patient (Simon R 2007.) Most of the time when an adolescent dies from a firearm suicide, the gun owner is the parent (Johnson R et al. 2010.) The most common cause of death by ingestion is acetaminophen, followed by amitriptyline.

5) Medication for treatment of a mental illness.

Antidepressants: They work slowly, over a period of weeks. The older tricyclic agents are fatal in overdose. Serotonin reuptake inhibitor antidepressants increase suicidal thinking and behavior in patients under 24 years old, but they also probably decrease suicide deaths.

Anti-anxiety: Very safe unless mixed with alcohol. These may be life saving in an acute suicidal episode when anxiety is prominent.

Lithium: Lithium has strong anti-suicidal properties. The risk of suicide in bipolar clients treated with lithium falls 10-fold. When lithium is discontinued, suicidal behavior increases 20-fold within the next 6-12 months (Jacobs D et al. 2000.)

Clozapine: Clozapine also has strong anti-suicide properties. It is FDA approved for this use in clients with schizophrenia or schizoaffective disorder. Evidence of suicide protection is not as strong for the other antipsychotics (Spivak B et al. 2003.)

6) Determine a treatment setting. There is no evidence that hospitalization reduces suicide risk. However, some factors may preclude safe outpatient management of the suicidal patient:

- a) Severely impaired judgment
- b) Severe lack of impulse control
- c) Out of control substance abuse
- d) Near lethal suicide attempt
- e) Persistent plan
- f) Contributing medical condition
- g) Lack of treatment alliance
- h) Unclear diagnosis

7) Provide support to family members/friends. Parents will often react with anger and denial, as well as anxiety and embarrassment. They need help understanding their responsibilities and limits. Help them not to feel isolated in the crisis.

8) Enhance protective factors

9) Monitor and reassess.

10) Assure coverage when you are not available.

Above all, do not let the issue drop without resolution, including a crisis plan and a long-term treatment plan. **You must follow through!**

The No Self-Harm Contract

There is no uniform definition of the “no self-harm” contract. Usually such contracts include an agreement from the patient not to hurt or kill himself over a certain period of time, and an agreement to call a designated person should the patient feel unable to meet the terms of the contract.

The idea of a no self-harm contract originated in the 1970’s as a way to evaluate an outpatient’s ability and willingness to participate in treatment planning. Unfortunately, it has evolved into a sort of checkbox, totally removed from any other clinical judgment or risk assessment.

Most inpatient facilities and outpatient practitioners who work with severely suicidal clients use no self-harm contracts. What little research exists on their effectiveness indicates that there is no evidence that contracts prevent suicide. There is no evidence that legal outcomes are affected by the presence of a contract. There is evidence that they may increase legal liability in the event of a bad outcome, and that insurance companies may regard a contract as

evidence that hospitalization is no longer needed. In any case, once a patient decides to die by suicide, the clinician is usually regarded as an adversary rather than an ally. There is little reason to suppose that a contract will be entered into in good faith in such a circumstance (Garvey K et al. 2009.)

A contract may:

- 1) provide diagnostic information about the treatment alliance
- 2) be therapeutic
- 3) reduce anxiety in the clinician
- 4) provide a clear expectation for tasks to be performed by the clinician

A contract can be dangerous if it:

- 1) leads to an inappropriate disposition
- 2) replaces a good evaluation
- 3) replaces good treatment planning
- 4) gives inappropriate reassurance.

A different approach is to use a “commitment to treatment statement”. Such a statement can facilitate communication, aid in developing a therapeutic alliance, and involve the client in the treatment process. As outlined in Rudd et al. (2006), the CTS asks the client to agree to attend sessions, set goals, be honest, be adherent to treatment recommendations, and use a crisis response plan. It asks that the client make a “commitment to living” while involved in the treatment and tell the therapist if the treatment is not helping.

Repetitive Suicidal Behavior

Attempts have been made to create a “profile” of repetitively suicidal clients. In general they tend to be more personality disordered, younger, and often female. The more suicidal precautions one introduces, the more these patients tend to regress. Since these clients persistently show suicidal behavior in response to a wide array of stresses, the job of the clinician is to broaden the range of choices available to them. The difference between managing acute and repetitive suicidality may be thought of as the difference between treating pneumonia and diabetes. Pneumonia requires emergency, intensive treatment, often requiring a hospital. Diabetes requires long-term management, generally outpatient and needing lifestyle changes. Implementing the plan usually requires a team approach, including clinicians, ER doctors, and law enforcement to prevent emergency detentions. The client will often resist being part of a

plan, so the clinician needs to be flexible, patient, and persuasive, which is difficult when the patient is driving the treatment through fear. Nonetheless, these clients may be at risk for eventual death by suicide and the clinician needs to guard against countertransference – burnout, numbness, anger at feeling manipulated – by using consultation and a team approach (Sansone R 2004, Paris J 2004.)

New Prevention Strategies: Social Media

Recognizing the limitations of trying to use risk factors to predict suicidal behavior, some mental health professionals are turning to more proximal warning signs, such as mobile phones and on-line computer activity (Christensen H et al. 2016.) Certain phrases and the use of personal pronouns in e-mails and blogs might be able to predict depression status. Facebook allows users to flag videos that are concerning, and is testing pattern recognition software to identify suicidal posts. Virtual Hope Box is a smartphone app to improve stress coping skills and reduce suicidal ideation and self-harm. These interventions are in their infancy, and raise numerous privacy concerns.

SPECIAL TOPICS IN SUICIDE RISK MANAGEMENT

Antidepressants and Suicide

In February, 2004, the FDA held public hearings regarding antidepressant use in the pediatric population, based in part on the United Kingdom's Medicines and Healthcare Products Regulatory Agency issuing a contraindication for the use of any antidepressants (except fluoxetine) in children and adolescents. This contraindication was based on lack of efficacy, and risk of an increase in suicidal behavior. On October 15, 2004, the FDA issued its strongest possible warning (black box) for all antidepressants stating that these medications may “increase the risk of suicidal thinking and behavior in children and adolescents with major depressive or other psychiatric disorders.”

Since then, there has been enormous controversy surrounding antidepressants and the emergence of suicidal behavior. Epidemiologic trends imply that antidepressant use may have reduced suicide risks in adolescents over the last ten years. And while the finding that antidepressants are linked to increases in suicidal behavior in younger patients seems to be fairly consistent, it is quite

difficult to show suicide deaths are directly caused by medication rather than the mental illness. A 2011 review looking at 27 years of data strongly suggests that antidepressants reduce the risk of suicide death (Leon A et al. 2011.)

The best approach is to monitor everyone who is started on an antidepressant closely for the appearance of suicidal ideation, agitation, and irritability, especially during the initial months of therapy, and be sure that this risk is discussed during the obtaining of informed consent.

Biological Markers

Biochemical studies of suicide attempters and completers suggest decreased function in the serotonin system. In individuals with depression, highly lethal suicide attempts are linked to lower serotonin than less lethal attempts. Post mortem serotonin binding in suicide victims localizes this abnormality to the ventral prefrontal cortex. Similar findings from PET scans link serotonin dysfunction to increased impulsivity (Oquendo, M 2003.)

There is presently a great deal of interest in finding genetic markers that may indicate a vulnerability to suicide. However, there is no biological test that shows a definite demarcation between those individuals who will commit suicide and those who will not.

Self-Injurious Behavior (SIB)

Self-injurious behavior is the deliberate alteration or destruction of body tissue without conscious suicidal intent. Previously, SIB was thought to be associated only with serious mental illness or trauma. Lately, substantial rates of SIB have been found in high functioning populations with no psychiatric diagnosis (Walsh B 2007.) It is also found in nearly 30% of prisoners at some point during their incarceration (Kirchner T et al. 2008.)

Nonfatal deliberate self-harm is more common in adolescents, especially young females. A study of 6,000 adolescents found deliberate self-harm in the previous year occurred in 11.2% of girls and 3.2% of boys. Some communities report rates as high as 14-39% of adolescents. Poisoning and cutting account for 90% of the ER visits. Males are more often in need of medical attention (Rodham K et al. 2005, Smith B 2005.)

Self-harm in adolescents increases proportionately with consumption of cigarettes, alcohol, and drugs. Having friends or

family members who recently self-harmed increases risk. Childhood abuse is associated with self-injury. In addition to borderline and antisocial personality disorder, SIB is seen with substance abuse, posttraumatic stress disorder, intermittent explosive disorder, and dissociative disorders. Depression, anxiety, and impulsivity are associated with self-harm in girls but not boys. Girls are likely to explain their self-harm by saying they want to punish themselves, or they are trying to get relief from an unbearable state of mind (Rodham K et al. 2005, Smith B 2005.)

Media outlets, including the *Internet*, have now made SIB a part of mainstream culture. A Google search of self-injury will result in over a million hits. YouTube.com allows individuals to watch as the creator of the video hurts himself. While some sites are well moderated and designed to support people's efforts to reduce SIB, others encourage self-injury. Therapists who work with SIB clients need to become familiar with useful *Internet* sites and always ask clients about *Internet* usage (Whitlock J et al. 2007.)

The relationship of SIB to suicide is complex. In the general population, SIB is usually sporadic and does not reflect serious psychopathology. In contrast, in mental health patients, both suicide and SIB are associated with high levels of depression and hopelessness, as well as higher levels of psychopathology. In a recent study, future SIB was predicted by strong negative feelings. A reduction in depressed feelings resulted in a decrease in SIB. In contrast, suicidal behavior was predicted by poor family functioning and this was not changed by a reduction in depressed feelings. The hypothesis is that in this adolescent sample, the primary motivation for self-injury was to immediately relieve strong negative feelings, while suicidal behavior was motivated by interpersonal issues (communication, manipulation, etc.) Finally, in this study, SIB was a stronger predictor of future suicide attempts than was a history of previous suicide attempts (Wilkinson P et al. 2011.)

One researcher has found in her research that SIB often follows suicidal ideation and when this is the case, a suicide attempt will generally ensue, even when the SIB is clearly not suicidal. In her view, this kind of SIB may reflect a delay in suicidal action, providing an opportunity for intervention. In short, non-suicidal self-injury should be taken seriously. Her research also reflects that greater frequency, greater variety of self-harm, and a feeling that the self-harm is not providing as much relief as it did in the past, are all

worrisome signs. She found that asking the question, “If you have serious thoughts of suicide, how confident are you that you will be able to stop yourself?” (0 sure – 10 unsure) was predictive of a suicide attempt if the person was 6.5 or higher (Muehlenkamp, Jennifer, UW Eau Claire presentation.)

Assessment of self-injury

There are four main types of SIB (Smith B 2005):

1) severe: Infrequent acts in which a significant amount of body tissue is destroyed - eye enucleation, castration, limb amputation. This usually occurs suddenly with a great deal of damage. It is associated with psychotic states, acute intoxications, encephalitis, transsexualism, sensory neuropathies, schizoid personality disorder, mental retardation, and schizophrenia. Some patients seem indifferent to their behavior and can provide no explanation for it. Others offer explanations that make no sense. Explanatory themes may have a religious or sexual content. Most patients are very calm after the act. Psychotic patients who are preoccupied with religion and sexuality, or who suddenly change their appearance by shaving their head or plucking out eyebrows are at high risk.

2) stereotyped: Acts that have a fairly fixed pattern of expression devoid of symbolism and often rhythmic - head banging, eyeball pressing, finger biting. They are most commonly seen in institutionalized mentally retarded people (13.6%). The behavior may be seen in autistic disorder, acute psychotic states, schizophrenia, Lesch-Nyhan syndrome, Tourette's, obsessive-compulsive disorder, and amphetamine intoxication. (Axis I stereotypy/ habit disorder). Head banging is the most common. It may be for attention, response to under-stimulation, frustration, or aggression turned toward self.

3) socially accepted/ emblematic: tattooing, piercing, scarification...

4) superficial/ moderate: Acts of low lethality that result in relatively little tissue damage that occur sporadically or repetitively. These are often a time-limited experimentation among peers, and include cutting, burning, scab picking, needle sticking, self-punching, excoriations, or scratching. It has been reported with PTSD after rape and combat, during depersonalization, in dissociative identity disorder, borderline personality disorder, histrionic personality disorder, prisoners with antisocial personality disorder, Addison's disease, and eating disorders. The SIB may be:

- a) compulsive: urge is resisted – nail biting, skin picking, hair pulling
- b) episodic: quick, effective release from stress, often impulsive, and often in response to anger and anxiety
- c) repetitive: little resistance to the act, rumination and planning, identification as a cutter/burner, qualities of addiction
- d) counter-dissociative: purpose is to reconnect with reality
- e) parasuicidal: ambivalent suicide attempt, attempt to communicate

The first step in helping a person who self-injures is to do a good evaluation. Relatively little has been written about doing a formal assessment. It is recommended that caregivers should respond initially with “respectful curiosity” and a low-key demeanor. Responding with shock and revulsion is unlikely to be helpful. Neither is immediately responding with a request for a no-self harm contract.

The assessment should begin with an open-ended question such as “What does self-injury do for you?” From there a history of self-injury should be obtained, including age of onset, frequency, duration, wounds per episode, etc, details of recent injury, antecedents, and consequences (Walsh B 2007.)

Summary of common reasons for self-injury:

Communication

Elicit care

Express emotional turmoil

Affect Regulation

Calming the body during periods of arousal

Avoiding suicide

Boundaries

Terminate dissociation

Define the boundaries of the body

Addiction

Tension/release

Control /punishment

Trauma re-enactment

Bargaining/magical thinking

Self-control or control of others

Self-injurious behavior and suicide

As mentioned above, the relationship between SIB and suicide is complex. In psychotic and affective disorder patients, SIB may be a prodrome to suicide. The most common forms of SIB consist of cutting, scratching, self-hitting, and self-burning. These rarely result in death (Walsh B 2007.) Personality disordered patients may self-injure to reduce tension or to communicate, without suicidal intent. Nonetheless, 29% of low risk self-injurers report varying degrees of suicidal intention. 10% may go on to commit suicide. Self-injurers tend to underestimate the lethality of their actions (Stanley B et al. 2001.)

Self-injurers differ from suicidal individuals in:

- 1) intent (to relieve unpleasant affect, not die)
 - 2) level of physical damage and frequency (suicidal acts are rarely repetitive)
 - 3) methods of self-injury are usually multiple (suicidal clients usually choose one method)
 - 4) self-injurers' psychological pain is intermittent
 - 5) there is little constriction in affect in self-mutilators
 - 6) there is rapid improvement in mood after the act of self-injury
 - 7) self-injurers have periods of optimism and a sense of control
 - 8) self-injurers frequently have a poor body image
- (Walsh B 2007)

Treatment of self-injurious clients

There is no good evidence base for pharmacological treatment of SIB. Virtually all studies are short duration case studies of adult, Caucasian women with no comorbidities. Outcomes were captured only by self-report, and medications may or may not been accompanied by psychotherapy (Smith B 2005.) The best non-evidence based recommendations would be: if SIB occurs in the context of an affective or obsessive/compulsive disorder, treatment should begin with an antidepressant or mood stabilizer. If psychosis, tics, seizures, akathisia or pain contribute, treat with an antipsychotic, anticonvulsant, tranquilizer or analgesic respectively. In the remaining subtypes, initiate treatment with an SSRI. If that is ineffective, add or substitute naltrexone. Then try lithium, beta-blockers, pindolol, clonidine, guanfacine, or an MAOI (Villalba R, Harrington C 2003.)

Therapeutic approaches that have been tried include cognitive restructuring (dialectical behavior therapy), behavior modification, assertiveness training, teaching alternative coping mechanisms, and psychodynamic long-term partial hospitalization programs. DBT is the only well-replicated successful treatment (Lieb K et al. 2004.) Targeting emotion dysregulation may be a useful focus (Gratz K 2007.)

Experienced therapists with SIB clients point to the importance of validating the patient's experience and feelings in order to strengthen the treatment alliance and to help patients learn to trust themselves. Making sure to ask for patient feedback is important since many of these clients do not easily articulate their concerns. It is important that patient and therapist agree on goals. Most therapists agree that one of the most compassionate actions a caregiver can take is to tell the client not to self-injure. The goal must be to preserve physical health. Getting there may be slow, and patients will need support and patience. Care must also be taken to not inadvertently reinforce injury through demonstration of kindness and compassion about the injuries (Nafisi N, Stanley B 2007.)

Children

Suicide death before 14 is very rare and rates have not increased in last 20 years internationally, although they have increased in the U.S. It is almost always associated with severe personal and social pathology. 10% of child suicides are associated with a family history of suicide in parents or siblings.

The most recent review of child suicides (5-11) found that they were more likely to be black and male, to die of asphyxiation, and to not leave a note. 29% had told someone of their intent. Symptoms of ADHD were more frequent than symptoms of depression. In children between the age of 12 and 14, depression was more likely than ADHD (Sheftall A et al. 2016)

In children, cognitive immaturity and age-related impulsivity play an important role. The most common precipitants are academic problems, disciplinary events and family arguments. They tend to misjudge the repercussions of stressful events and most of these suicides show a very short stress-suicide interval, less planning, and lower suicidal intent. While hanging is the most common method, there are significant numbers of examples of running into traffic, throwing themselves down stairs, or jumping from high places.

Children who die of suicide usually have a history of impulsive, aggressive behavior (Dervic K, et al. 2008.)

The onset of puberty increases suicide risk because of the increasing prevalence of depression and substance abuse. Child suicides differ from adolescents in a number of important respects, making the risk factors different for the two groups. Children younger than 15 don't often show signs of depression, express less suicidal intent, are less exposed to some types of stressors, e.g. no romantic disappointments. They are not as likely to be intoxicated. Consequently, there are fewer warning signs for a child suicide (Dervic K, et al. 2008.)

Some warning signs include (various sources):

- Past suicide attempts or threats
- Past violent or aggressive behavior
- Mental illness, especially depression + anxiety and/or alcohol use
- Cognitive immaturity and impulsivity
- Bringing weapons to school
- Recent experience of humiliation, shame, loss
- Bullying
- Victim of abuse or neglect or witnessing violence in the home
- Themes of death or depression in reading, conversation, artwork
- Preoccupation with violence on TV, comics, video games, Internet
- Disciplinary problems
- Vandalism, cruelty to animals, setting fires
- Poor peer relationships
- Involvement with cults or gangs
- Little or no supervision

Adolescents

Suicide first arises as a public health problem around the age of 14. The suicide rate per 100,000 for ages 10-14 is 1.3; from 15-19 is 8, from 20-24 is 12. The 2005 Youth Risk Behavior Survey reported that 8.4% of high school students attempted suicide in the previous 12 months, 2.3% requiring medical treatment. 17% of high school students thought about suicide during that period. (By contrast, suicide death was extremely rare – 0.008% in 15-19 year old boys.)

The survey showed that the frequency of suicidal ideation increases with other risky behaviors, such as alcohol use and aggression (Swahn M, Bossarte R 2007.)

Suicidal ideation in teenagers is so common that it is not even always associated with psychopathology. The features that may separate those teens who attempt suicide from those who only think about it are (Judge B et al. 2004, Taliaferro L, Muehlenkamp J 2013):

Substance abuse problems (increases risk 12.8x)

More severe or enduring hopelessness

Isolation

Reluctance to discuss suicidal thoughts

Psychopathology, self-injury

In a recent NIMH report (2012), 4 screening questions use in an emergency setting with adolescents had significant power in predicting future suicide attempts, regardless of the reason the youth was in the emergency room:

- 1) Do you think you would be better off dead?
- 2) Do you currently have a wish to die?
- 3) Do you currently have suicidal ideation?
- 4) Do you have a history of suicide attempts?

Adolescent suicide and gender

Suicide Rate per 100,000

	<u>10-14 yrs old</u>	<u>15-19 yrs old</u>
girls	0.6	2.7
boys	1.9	13.0
African Am girls		1.3
African Am boys		7.3
Native Am boys		27.7

Girls: The ratio of attempts to completions is 4,000:1. A suicide attempt is not a statistical risk factor for eventual suicide in adolescent girls. Having a depressive episode is. Girls often do not have a precipitating event and may kill themselves while recovering from a depression. Panic attacks are also a risk factor for girls. There has been a spike in the number of suicide deaths in girls 10-14 years old for unknown reasons (CDC, 2007.)

Boys: The ratio of attempts to completions is 500:1 and attempts are a statistical risk factor for eventual suicide. The suicide rate for white and black male adolescents increased 3x from 1955 to 1994 for unknown reasons, possibly due to an increase in alcohol use. The rate

has dropped markedly since 1995, possibly due to an increase in antidepressant use. Boys often kill themselves within a few hours of a precipitating event, before they know the consequences, and while anticipatory anxiety is at a peak. Events include legal problems, relationship problems, and humiliation. Aggressiveness is a risk factor for boys (Gould M et al. 2001, Judge B et al. 2004.)

Risk factors for adolescent suicide

(Vitiello B, Pearson J 2008, Posner K et al. 2007, Cerel J et al. 2005, Gould M et al. 2001)

1) Previous suicide attempt: Even the most skilled clinician can find it very difficult to distinguish between benign and dangerous suicidal behavior. Many adolescents who make serious attempts will never do so again. Others, who make an insignificant gesture will later die of suicide. Suicide attempts are more frequent with girls (11.2%) than boys (6.2%.) Hispanic high school students are more likely to attempt (12.1%) than Black or White students. Girls attempt mostly by ingestion (55%) or cutting (31%), boys by ingestion (20%), cutting (25%), firearms (15%), and hanging (11%.) The greatest risk is within 3 months immediately following the first attempt and continues for at least two years.

2) Mental illness: 90% of suicides have a diagnosis of depression, substance abuse, or anxiety a year before the suicide. It is estimated that 1 million youths suffer from depression, but 60-80% of these do not receive help. Fewer than 10% of young people who died of suicide were on antidepressants or in substance abuse treatment. Substance abuse is a risk in teens 16 and older. 50% of suicides involved alcohol use. Parents frequently do not recognize the signs of suicidal behavior in their children and deny the significance of an acute depressive illness when it appears in the context of a readily identifiable life stress. Stressors can mislead. It may be the mental illness that is causing the stress. Many commentators identify the combination of depression and a tendency to react to stress with impulsive aggression as a profile of special risk.

3) Imitation: 200 suicides a year may be clustered around media stories of public suicides or violent death. Victims may or may not know each other. (Older adults may also die of suicide in clusters.) Media guidelines are available. See Clustering, below. Risk seems to last for about one year (Feigelman W, Gorman B 2008.)

4) Family history of suicide: Common kinds of family dysfunction (divorce) do not seem to influence suicidal behavior, but a family history of suicide does increase risk.

5) Sexual orientation issues: Gay, lesbian, and bisexual youth have more ideation, attempts, and psychopathology, but not necessarily more suicide death (McDaniel J 2001.)

6) Sexual abuse: Sexual abuse also contributes to psychopathology, but not to specific effects on suicide rates. Physical abuse increases risk of suicide in males. There is a stronger relationship to physical and sexual abuse in child suicide (Dervic K, et al. 2008.)

7) Other stressors: interpersonal losses, disciplinary crises, bullying (being perpetrator or victim.), failure to communicate with fathers, youngsters who are drifting (not affiliated with school, work or institution, e.g. after a period of absence from school), males who experience romantic breakup (which may be their only intimate relationship), being a minority in an upwardly mobile family. All these may serve to increase isolation.

8) Incarceration – the suicide rate (per 100,000) for juveniles in detention centers is 57. For adolescents housed in adult facilities it is 2,041!

9) Having friends is a very important protective factor. Other studies have shown the protective effect of good parent and school relationships. These act as a buffer to stress (Kidd et al. 2006.)

Risk assessment in adolescents

Although suicidal ideation is very common in this population, it should be asked about and evaluated in the context of accompanying mental illness. Depressed adolescents should always be assessed for suicidality. It is important to include data from several sources, including parents, school, or other significant relationships. Besides evaluating the risk factors mentioned above, the following eight parameters should be considered (Pfeffer C 1996):

- 1) Predictability of the youngster
- 2) Circumstances of suicidal behavior
- 3) Intent to die
- 4) Psychopathology
- 5) Coping mechanisms
- 6) Communication
- 7) Family support

8) Environmental stress

Remember that it is the adults' responsibility to bring up the issue of suicide and emotional difficulties. Teenagers do not generally talk to adults about their problems.

Treatment of suicidal young people

Identifying risk factors and precipitants of suicidal behavior is an important first step. Treating any mental illness is a priority. The Treatment for Adolescents With Depression Study (TADS) demonstrated that both antidepressants and cognitive behavior therapy together work better than either alone. Antidepressants were more effective than CBT by itself, but CBT may attenuate suicidal thinking (Vitiello B, Pearson J 2008.)

There are few empirically justified interventions for suicidal adolescents, since they are generally excluded from treatment trials. A special adaptation of Dialectical Behavior Therapy is being studied (Klomek A, Stanley B 2007.)

An emergency plan that builds on an analysis of the teen's vulnerability to stress by establishing alternative behaviors to deal with anger and frustration, in collaboration with the young person, family, and significant others has become a common approach to safety management (Vitiello B, Person J 2008.)

Lethal means must be removed from the home. Family therapy is often called for to improve communication and treatment adherence.

Hospitalization may be necessary if there is a need for medical treatment after a suicide attempt, if the teen is clearly showing an abnormal mental status, if the attempt was strange or very lethal, or if there is a persistent wish to die. Continuing substance abuse, aggression, or a disturbed family might also make outpatient safety planning impossible.

Suicide prevention strategies in young people: a review

(Rodgers P et al. 2007, Gould M et al. 2001, AACAP Practice Parameter 2000, Shaffer D et al. 1991)

1) Assembly type group suicide awareness programs - popular with normal teens, but they don't seem to increase self-referrals, help seeking, or help giving in adolescents. They may activate suicidal ideation in disturbed adolescents whose identity is usually not known by the instructor. They may contribute to clustering. They also tend

to minimize the role of mental illness. Suicide training as a part of the normal school curriculum may be helpful.

2) Screening – assessments of depression, alcohol/substance abuse, recent or frequent suicidal ideation, past suicide attempts. These have been shown to identify a number of unknown, untreated cases of depression. For one example, see www.teenscreen.org. Screening programs that do not include procedures to individually evaluate and refer identified teens should not be used.

3) Gatekeeper training – training teachers, counselors, youth workers to recognize at risk students. This may work, but there are no clear research findings.

4) Crisis center and hotlines – there is a dearth of information about efficacy for teenagers and whether these centers address risk factors in high risk groups. Few teenagers use them, and those that do are not highest risk (boys).

5) Restrictions of lethal means/alcohol – a modest but statistically significant reduction in firearm suicides in the 14-17 year old age group has been associated with child access prevention laws. It is estimated that restriction of access to guns could save 896 adolescents from suicide every year. A 2015 survey found that adolescents with risk factors for suicide were just as likely to have access to firearms as those without risk factors (Simonetti et al. 2015.) 17% of family caregivers purchase new firearms even after a child's suicide attempt, but they are 3x more likely to get the guns out of the home *if they are educated about the dangers* (Brent D et al. 2000.) Certainly, suicidal teens should not have access to guns, and parents should be informed of this risk. Also, suicidal youth are more likely to use firearms when intoxicated. Suicidal teens need to be kept away from alcohol, as well. States that have increased the minimum drinking age have seen a 7% suicide reduction in teens.

6) Skills training - development of problem solving and coping skills as part of a high school curriculum. There is some evidence this may help.

7) 16% of suicidal teens that are taken to the ER will not show up for a follow-up appointment. 52% who do show up will quit after 2 sessions. A nighttime phone contact and next day follow-up has been shown to assure 90% will stay in treatment. Missed sessions, sudden wellness, or a sudden desire to stop treatment are red flags that suicidality may be present.

8) Antidepressants: There is controversy about the use of antidepressants and the appearance of suicidal ideation in teenagers. Caregivers need to be alert for the following side effects:

- decreasing inhibition
- increase in irritability
- change in sleep patterns
- increase in agitation/ restlessness

Suicide prevention in young people: developmental issues

(Daniel S, Goldston D 2009)

Given the range of differences in maturity of youth between the ages of 13 and 19, suicidal behavior in young people needs to be considered in a developmental context. So do intervention efforts. They usually are not, and one-size-fits-all programs are the rule rather than the exception.

Some young people are chronically suicidal; others make only one attempt and never think about it again. Some youth have high levels of impulsivity and aggression. Others have persistent depression and anxiety. Still others have severely dysfunctional families. These differences need to be taken into account in developing interventions to reduce distress and prevent future suicidal behaviors. Treatments that focus on self-control need to recognize that the younger the child, the less control they have over what goes on in their home. Older teenagers usually have more autonomy. Treatments need to respect the cognitive limitations of the teen brain and focus on concrete, rather than abstract language, and short-term, rather than long-term goals. Brief motivational enhancement techniques are useful because they are non-confrontational and underscore a sense of personal control.

Teens often drop out of therapy because it makes them feel different than their peers. Unfortunately, the chosen peer group may also be very troubled and may include risky behaviors and suicidality. These relationships need to be carefully assessed.

Adolescents may be uncomfortable with their parents being involved in treatment. At the same time, a common complaint among teens is that “no one understands me.” Approaches that help adolescents develop ways of getting validation for how they feel, in spite of their efforts to push adults away, are important.

Parents may not want their children in treatment because of the stigma involved, and may reinforce the desire of the teen to drop out.

Therapist-client alliance has been shown to be crucially important in keeping the teen in treatment.

Finally, many young people have not yet discovered activities that provide them with a sense of purpose in life. It may be useful for the therapist to encourage adolescents to expand their social networks and supports to including a focus on helping other people.

Suicide clusters in adolescents

A cluster is a group of suicides or suicide attempts that occur closer together in time and space than would normally be expected in a given community. Clusters of suicidal behavior may result from intentional or unintentional traumatic deaths among youth. Clusters account for approximately 1-5% of all adolescent suicides. Clusters create a crisis atmosphere in a community. A recent study looking at 5,852 adolescent found that youth exposed to peer suicidal behavior, in addition to being likely to have their own suicidal ideation and attempts, smoked more, binge drank, and had more fights than controls (Cerel J et al. 2005.)

When a suicide occurs in a school system, the following approaches should be considered to reduce the risk of imitation:

- 1) Students who are likely to be the most closely affected (boyfriends, girlfriends, close friends) should be told privately.
- 2) Death(s) should be announced in a manner that is supportive and minimizes likelihood of hysteria. Students should be in homeroom or other small, supervised groups. (Most students will have heard of the death earlier, but teachers should publicly acknowledge what is known.)
- 3) The decedents should not be idealized or vilified. The means of suicide should not be discussed in detail. If possible, modifications should be made to prevent other suicides – putting up a guardrail on a bridge or cliff, closing off access to a rooftop, etc.
- 4) Funeral services should not be allowed to disrupt the normal school schedule.
- 5) Persons at high risk should be identified and offered counseling. The funeral director may make note of visitors who seem especially troubled. School absences should be tracked. Previous attempters should be counseled, even if they did not know the victim. Persons with a history of mental illness and those with other risk factors may need to be offered counseling.

- 6) Counseling centers should announce their availability at school and in the media. (CDC Rec. 1988)

Handguns

The suicide rate in the US is correlated with the proportion of households owning firearms - highest in Nevada and Montana, lowest in New York and New Jersey. There is no association with gun ownership and non-gun suicide (Miller M, Hemenway D 2008.)

Adolescents who do not have a mental illness diagnosis but do have handguns in the home have a 13x greater risk of suicide. If the gun is loaded the risk is 32x. (Brent D et al. 2000) There are additive effects on suicide risk if the gun is unloaded, locked, ammo stored separately and ammo locked (Grossman et al. 2005.) This is because it takes less time to reach for a loaded gun than any other means of suicide, making it a particularly dangerous opportunity for impulsive people (Simon R 2007.)

After handgun licensing was required in Washington D.C. in 1976, homicides were reduced by 25% and suicides were reduced by 23%. There was no increase in suicides using other methods. (Loftin et al. 1991.)

These data have led public health-minded clinicians to lobby for some sort of gun control. In other countries where firearm ownership has been limited, a reduction in suicide rates has followed (Mann J, Michel C 2016.) Because the Second Amendment of the Constitution has been interpreted as curtailing wide-spread gun control measures, the emphasis has shifted toward trying to restrict access for only those who are identified as potentially suicidal. However, there is little evidence that such a limited approach will work (Boggs J et al. 2017.) Most people who die of firearm suicide have not sought help for a mental health condition. Most suicides involve guns that were purchased years before. The current emphasis has moved to gun safety (storage, smart gun technology, interventions with actively suicidal people with guns at home, etc.)

College Students

The overall rate of suicide among college students is 7.5 per 100,000, (1,100/year) making it the second leading cause of death in that group. This is lower than the rate for peers who do not attend college (15 per 100,000.) However, suicidal ideation (10%) and attempts (1.5%) are fairly common. 46% of college suicides occur in

the 20-24 year old age group, with graduate students at greatest risk, comprising 32% of campus suicides. Suicide rates of foreign students may be higher. Rates may also be higher during summer terms when fewer students are on campus (Orden K et al. 2008.) Campus prohibitions of firearm possession are credited with a being responsible for the lower rate, as well as the availability of campus monitoring and health services (Silverman M et al.1997.)

The major mental disorders often first appear during college age. Frequently, the stresses of college life – social and academic - can precipitate the onset of an illness. In a 2003 survey by the American College Health Association, more than 40% of students reported feeling so depressed that it was difficult to function at least once during the year. Because the college admissions process requires that students appear to be well balanced and free from emotional problems, many students hide their disorders. Substance use and abuse, a problem on most college campuses, can complicate diagnosis and treatment. An additional complication is that many colleges have policies to suspend students who are suicidal for fear of liability (Applebaum P 2006.)

18-24 year old college students who report suicidal ideation are more likely to engage in injury-related risk behaviors (driving, swimming while intoxicated, fighting, etc.) (Barrios L et al. 2000.)

The Jed Foundation is a nonprofit organization working to reduce college suicide rates and improve college mental health services. (www.jedfoundation.org) See also www.ulifeline.org

Older Adults

In the United States, suicide rates increase with age only for men, particularly white men. Worldwide, both men and women are at greater risk as they age (Conwell Y, Thompson C 2008.) White males over 50 account for 10% of the population, but 30% of the suicides. Paradoxically, the prevalence of depression declines with age and 2/3 of elderly describe themselves as happy and satisfied.

Older adults tend not to go to mental health services, have complications in their presentation from comorbid medical conditions and medications, are reluctant to talk about emotional problems, are usually more isolated (making rescue more unlikely), and are more frail. Therefore, although older people make fewer attempts than younger people, they are more likely to die from suicide (1:4 vs. 1:200 for <65 yrs.) They often use guns (80%) or

more lethal means. The presence of a handgun, but not a rifle, in the home significantly increases the risk of suicide in older men. These guns are typically purchased in the week before death. The Brady Handgun Violence Prevention Act, which requires a waiting period before buying a handgun, has been found to prevent suicides among persons 55 or older, although not in younger people (Conwell Y, Thompson C 2008.)

Older adults who die of suicide usually have an Axis I diagnosis – affective disorder and/or substance abuse. Dementia has not been linked to suicide. People with constricted, neurotic personality styles who do not tend to develop strong support networks are also at risk (Conwell Y, Thompson C 2008.)

Life events associated with suicide in older adults are typically those stressors found with aging: bereavement, financial stresses, family discord, loss of social support, and the impact of physical illness. Physical illness, especially cancer, HIV, Huntington's disease, MS, renal disease, peptic ulcer, spinal cord injury, and lupus increase the risk of suicide (Conwell Y, Thompson C 2008.) Terminal illness, especially if depression is controlled for, does not (Jacobs D 2000.)

Having a rich social network with friends and family is associated with lower risk, as is having a sense of meaning or religious connection (Conwell Y, Thompson C 2008.)

Most elderly die in the middle of their first episode of depression. The problem is that mood disorders are often missed in the elderly because the depression is hidden by somatic complaints, confusion of depression with dementia (pseudodementia), refusal of medical care, and a belief by others that the elderly have "a good reason to be depressed." Prevention of suicide in the elderly needs to involve primary care providers, since the elderly are underrepresented in mental health settings. Most elderly are seen by primary care doctors within a week of their suicide. Screening for depression and suicidal thinking should be done for elderly who are at risk due to physical health changes, symptoms of depression, or increasing isolation. A program of intensive collaborative care for at risk older adults has been shown to reduce suicidal ideation and improve treatment of depression (Alexopoulos G et al. 2009.)

Alcoholic/Substance Abusers

The lifetime risk of suicide for alcoholics is 60-120x the general population (2-3% lifetime risk). 70% of all alcoholics will ultimately develop a depression - research reveals fewer serotonin receptors in the brains of alcoholics. When they make a suicide attempt, they are more likely to choose a firearm as a weapon. 69% of all suicides have detectable alcohol levels (Gossop M 2005.)

This being said, the precise nature of the relationship of alcohol and suicidal behavior is not understood. Alcohol may increase suicide risk by its toxic effects on brain chemistry; by disrupting personal relationships; by the disinhibition of suicidal behavior; or by worsening existing mental illness (Gossop M 2005.)

Alcoholics who commit suicide are usually not in acute crisis, but rather at the end stage of chronic deterioration due to loss of job, family, or health.

Characteristics of substance abusers who commit suicide: (various sources)

- Male in the 20's to 30's

- Multiple drugs of abuse

- Onset of drinking - 15 yrs. old

- Duration of disorder - 9 years

- Chronic use

- History of drug overdoses

- Comorbid psychiatric disorder, esp. depression, psychosis, borderline personality disorder

- Recent interpersonal loss

- Childhood history of hyperactivity, incorrigibility, family financial difficulties and suicidal behaviors, parental abuse, foster homes

- Family history of depressions, suicide, alcoholism

Bipolar Disorder

Suicide rates among patients with bipolar disorder are substantially greater than rates with other psychiatric illness, as well as 30-60x greater than deaths in the general population. 15-20% of deaths in the bipolar population are by suicide. Up to 50% of bipolar clients may make suicide attempts. The ratio of attempts to deaths is lower (~3:1) than in other illnesses (depression ~5:1, general population ~30:1). The bipolar II subtype may be even more dangerous (Baldessarini R et al. 2006.)

Risk is higher at the beginning of the illness, when compliance with treatment is lowest. The latency between onset of symptoms and sustained long-term treatment in bipolar disorder is between 5-10 years. (Ghaemi S et al. 2000.) Substance abuse, psychosis, treatment failures, mixed states, early age of onset, history of physical or sexual abuse, family history of suicide attempts, and past suicide attempts all increase suicide risk. It is not clear whether rapid cycling increases risk. Most suicides occur in the mixed or depressive stage. In Bipolar I, patients are in those stages 33% of the time. In Bipolar II, they are in those stages about 50% of the time (Tondo L et al. 2003.) Clients do not need to be in a depressive phase to be at risk, but suicide in mania is rare. Comorbid anxiety also seems to increase risk, regardless of the primary illness (Fawcett J 2007.)

Gender differences in suicide are not as apparent as in the general population or in depression (Baldessarini R et al. 2006.)

With lithium treatment, the risk of suicidal acts is significantly less. Sudden discontinuation of lithium dramatically increases risk of suicide. There is no evidence that antidepressants or other mood stabilizers protect against suicidal acts in long-term maintenance treatment (Baldessarini R et al. 2006.)

Borderline Personality Disorder

Borderline personality disorder is the only disorder that includes recurrent suicidal behavior as part of its definition. As many as 70% attempt suicide with an average of 3 attempts per patient, and 3-9.5% will die of suicide. Suicide threats and attempts occur primarily in the 20's, but suicide death occurs at a mean age of 37. The difficulty for the clinician is obvious – how to distinguish those few who are risk of suicide death from those who have chronic suicidal behavior as a symptom of their illness (McGirr A et al. 2007, Black D et al. 2004, Soloff P et al. 2000.)

Many predictors of suicide are not helpful in this population because they lack specificity – previous suicide attempts, depression, self-injury, substance abuse. One recent study offers data to suggest that the most important difference between attempters and those who die of suicide is comorbidity with antisocial personality disorder, which lends violent aggression to the impulsivity of borderline personality. This comorbidity increases the likelihood of more lethal means, and less treatment connection. Substance abuse may be a marker for more persistent borderline personality disorder, and more

risk. Finally, unlike other disorders, comorbid anxious traits may be protective for suicide death in BPD (McGirr A et al. 2007.)

Another study (Soloff P et al. 2005) found the following distinguish high lethality suicide attempts in BPD:

- Low socio-economic status
- Co-morbid antisocial personality disorder
- Extensive treatment history
- Greater intent to die

A second study (Soloff P et al. 2008) found psychotic and schizotypal features to be an important indicator. It is likely that the mediating factor between borderline personality disorder and suicide death, which tends to occur later in the illness, is the accumulation of the effects of a long-term illness, including impaired functioning and continuing suicidal behavior (Zaheer J et al 2008.)

Soloff, Chiapetta (2012) report findings that suicidal behavior may have changing antecedents over time. Major depression (an acute clinical stressor) is predictive during the first 12 months only. Illness severity (psychiatric hospitalizations) predicts suicidal behavior over the next 4 years. Absence of outpatient treatment indicates a risk for the a 6-year follow-up period. Consistent risk across all intervals include poor psychosocial and global functioning (low socioeconomic status, low educational achievement, poor psychosocial adjustment.)

The clinician must decide if the suicidality is acute or chronic. Acute suicidality may require the protective intervention of a hospital. Chronic suicidality requires long-term management of uncomfortable affect, interpersonal conflicts, and impulsivity. Medication has not shown consistent results in either case. (Sansone R 2004.) The problem is to balance keeping the client safe while not allowing them to become overly dependent on hospitalization or crisis care. In the hospital, every suicidal act is rewarded by more, not less, nursing care. Chronic suicidality is best managed in an outpatient setting (Paris J 2004.) Dialectical Behavior Therapy has proven to be useful for self-harm and reducing suicidality in borderline clients (Linehan M et al. 2006.)

Depression

In 1990, depression was the 4th leading cause of death in industrialized nations. The lifetime suicide risk is 2-10% (Welton R 2007.) 30-60% of suicides have depressive disorder. This is 10-20x

the risk of the general population (Mann J, Currier D 2007.) (It is of interest that studies of suicide *attempters* do not show any specific relationship to any diagnosis, but suicide completers are depressed 80% of the time.)

Nearly 2/3 of people with depression do not get treated. Those that do usually receive inadequate doses of antidepressants. That being said, it is so far not demonstrable that antidepressants have any suicide prevention effects (Khan A et al. 2003.)

In a study that analyzed the histories of 752 clients with major depression, the single most important feature associated with eventual suicide was suicidal tendencies and/or a history of suicide attempts. Other factors, including gender were less important. It appears that in depression, the propensity to consider suicide can be a relatively stable feature that extends through time. Suicide attempts of high intent and lethality is the most significant risk factor for this group (Coryell W, Young E. 2005.) In the NESARC epidemiological survey of 43,000 people, the following were associated with suicide attempts in depressed individuals: Hispanic or Latino ethnicity, low income, anxiety, personality disorder, and substance abuse. In men, dependent personality disorder had a strong association, in women, antisocial personality disorder (Bolton J et al. 2008.)

Schizophrenia

40% of people with schizophrenia report suicidal ideation, 25-50% attempt suicide, and 4.9% die of suicide (Palmer B et al. 2005.) This is unchanged since the advent of antipsychotics. Suicidal behavior is a common part of the illness. The highest risk seems to be in the first 5 years of the illness. Beyond this time, risk decreases, but remains higher than the general population. Similarly, a client's awareness of having a serious illness increases suicide risk early on (probably related to depression), but may reduce risk later in the illness (probably because of better compliance with treatment) (Bourgeois M et al. 2004, Palmer B et al. 2005.)

There is some indication that younger age may be more of a risk factor in schizophrenia. Single, young adult males <40 who live alone and are well educated (when other factors are controlled, the effect of age may disappear) appear to be at high risk (Welton R 2007.) Chronic illness with many exacerbations and remissions is a risk factor. A recent study has shown that early detection and treatment of schizophrenia reduces suicide risk (Melle et al. 2006.)

Other risk factors are (Hawton K, et al 2005):

- Affective symptoms
- Previous suicidal behaviors
- Poor adherence to treatment
- Drug misuse

The following do not statistically increase risk: treatment non-responsiveness, delusions, psychosis, other positive symptoms, or negative symptoms.

In general, recent loss is known to put people at risk. As schizophrenia progresses, it wears down self-esteem. Loss of a supportive, structured environment like leaving the hospital, or loss of familial support can increase risk.

About 20% of clients will have command auditory hallucinations (CAHS) for suicide, but they're no more likely to make an attempt than those without CAHS. But in some clients, CAHS are difficult to resist and they may increase risk - about 33% of those who experience CAHS. 24% of clients who attempt suicide had CAHS (Harkavy-Friedman J, et al. 2003.)

The Correctional System

In the US, 2 million people are currently in jails and prisons, 4.6 million on probation or parole. 3% of the US population is under some form of correctional supervision. 8-15% of prisoners have a serious and persistent mental illness, with a higher proportion in those in maximum security. If substance abuse is included, the percentage may be as high as 80% (Daniel A 2006.)

Suicide is the leading cause of death in jail, the third leading cause of death in prison (Hayes L 1995.) Suicide rates per 100,000 (Patterson R, Hughes K 2008, Daniel A 2006):

prison: 15 (inmates have been off the streets and are relatively drug free, often good mental health resources)

jail: 47 (transient population, less monitoring potential than prison)

death row: 147

lockup: 2500 (high risk, often intoxicated inmates, poor screening and monitoring)

Self-injurious behavior is a relatively common phenomenon in prisons with rates up 3760/100,000 (6.5-25% of the male inmate population.) Secondary gain for self-injurious behavior is nowhere

greater than in prison or the military. Distinguishing between those inmates who hurt themselves who are not a serious risk for suicide, and those who are is very difficult. One study looking at this issue found that the typical inmate who makes a more serious suicide attempt is older, more docile, more depressed and withdrawn. Those self-injuring with less lethal intent were highly visible, more impulsive, and more sociopathic (Lohner J, Konrad N 2006.)

There has been some confusion regarding risk factors for correctional inmates. The most recent review (Patterson R, Hughes K 2008) points out that 6 well-known demographic risk factors for the general population also pertain to inmates:

- Older age (relative to the prison population)
- Male gender
- Caucasian
- Substance abuse
- Psychiatric history
- Prior suicide attempts

A review of the literature (Fazel S et al. 2008) complements these findings by naming the following as the most important risks:

- Single cell
- Recent suicidal ideation
- History of suicide attempt
- Psychiatric diagnosis or history

Other reviews have commented on the specific stresses related to jails and lock-ups, where intoxication and fear are significant risks, and other stresses related to incarceration, including bullying, legal disappointments, and loss of social support (Daniel A, et al. 2005, Hayes L 1995.) In a large and comprehensive review of correctional suicides in California, the authors found that 73% of suicides occurred in single cells, including administrative confinement and mental health crisis beds (Patterson R, Hughes K 2008.) This serves to emphasize the importance of environmental stresses unique to prison condition, such as isolation and severe restrictions, in increasing suicide risk. In addition, this study found that 38% of those who died of suicide were so high functioning that they were not found to be in need of mental health treatment. All inmates need to be assessed for suicide risk, not just those who appear mentally ill.

At least one author suggests that progress in decreasing suicide in correctional settings has stalled, in part because we do not have mechanisms in place to accurately identify those inmates at risk who

do not have prior mental health histories (“clean” suicides.) Such efforts will require more ongoing assessment, education, and more availability of mental health services (Hanson A 2010.)

Suicide prevention must be a collaboration among administrative, custodial, and clinical staff and needs to be a top priority. Administrative policies for suicide assessment, intervention, use of psychotropic medication, and hospitalization must be sound. Individuals who are suicidal should not be placed in segregation. Communication must be good when transferring at-risk inmates to county jails for court hearings. Cells must be made as suicide proof as possible. Correctional officers must be trained in recognizing, dealing with, and understanding suicidal behavior. This will make it less likely that they will discount suicidal behavior as “manipulative.” All psychiatric disorders should be treated aggressively with safe management of psychiatric medication. The second most common cause of death is overdose of psychotropic medication (Daniel A 2006.)

Police officers

Police die by suicide at 2x the rate they are killed by criminals (300 suicides in 1994 - probably low. Nearly 30% of police suicides may have been mis-classified as accidental.) Police will frequently deny symptoms in themselves that they are trained to recognize in others. They are used to suppressing emotions because they deal with unpleasant circumstances repeatedly. Generally, “cops talk only to other cops.” Going for help could mean the temporary removal of their gun – a stigma and career setback.

Risk factors (FBI Law Enforcement Bulletin 1995):

- Police officers have higher rates of substance abuse
- Police officers have guns (95% used service weapon)
- Depression
- Relationship losses and conflicts
- Financial difficulties
- Older officers with physical illness or pending retirement
- History of psychiatric problems
- Difficulties at work, especially in the 6 months prior to the suicide

Law enforcement assisted suicide (Suicide by Cop)

Of 387 officer involved shootings in Los Angeles over a ten year period, approximately 10% were SbC. Unlike other suicides, SbC victims have close family and friends. At the time, the majority is having relationship problems. However, those with personal relationships were less likely to be killed (Lord V 2000.)

There are several types of SbC. Many SbC victims begin the suicide attempt on their own, but quickly try to be killed by law enforcement agents when they arrive. Some perpetrators have no intention of hurting anybody else. Others want to die in a blaze of glory, and want to take as many police with them as they can. Still others may see less stigma associated with being shot than suicide. Some are ambivalent and just want to see if the police will make the decision for them (Van Zandt C 1993, Brown H 2003.)

The majority of perpetrators are male. Most are not employed, but specific work problems were not an issue. 50% use guns to threaten the police and the guns were operative and loaded. Only 17% used replicas. Innocent bystanders are killed frequently (21%). If a person has built a barricade or just been involved in domestic violence, the situation is more dangerous (Lopez-Leon M 2013.)

Other factors that increase lethality of SbC:

- History of mental health commitment and suicide attempts

- Abuse/criminal history of hard drugs

- Nonresidence

- Financial problems

- History of domestic violence

- Possession of a gun

- History of criminal activity

- Homicidal conversation during the incident

85% of officers involved in SbC will experience a short-term stress reaction. 33% will experience moderate symptoms over several months. 5% will experience protracted symptoms (www.policepsychconsult.com).

Medical Illness

Medical illness plays an important role in 25% of suicides, perhaps as high as 70% in those over 60. Medical conditions associated with suicide include cancer, AIDS (41x greater), peptic ulcer (alcoholism is a confounding variable), Huntington's chorea, head injury, renal disease, seizures, and spinal cord injury.

Only 2-4% of suicides occur in the context of terminal illness. In terminal illness, about 50% of people will have an occasional wish that death would come soon, but in one study, only 8% had a serious, pervasive desire to die. This desire was correlated with high ratings of pain, low family support, and the presence of depression. The desire for death in terminal illness is almost always linked to depression, which may be treatable (Jacobs D 2000, Werth J 2004.)

Inpatient Units

There are ~1,500 inpatient suicides/year, 500 of which were on 1:1 or 15 minute check status (Grant J 2007.) Common methods include hanging, overdosing, and jumping. The cost of constant observation to institutions is extraordinary.

According to NIMH, inpatient suicide is the second most common sentinel event reported to JCAHO, after wrong site surgery. Identification of patients at risk is now one of JCAHO's patient safety goals. But there are no documented suicide risk factors specific to an inpatient unit (Grant J 2007.)

A review of 76 inpatients that completed suicide (Busch K, et al. 2003):

- 34% were deemed to not be at risk and were on pass, on no precautions, or just discharged

- 77% denied suicidal ideation in their last interview

- 42% were on 15-minute "checks", 9% were on 1:1 observation

- 28% had a no self-harm contract

- 79% had severe agitation/anxiety

- 54% were psychotic, 38% seriously so

A 2010 review covering 15,000 inpatient suicides concluded that this group of suicide victims is not a homogenous group. Findings include that those in the early stages of admission are at risk, inpatient units with more admissions are riskier, periods of reduced supervision are risky, and there are a high number of suicides who die while out on pass or after absconding from the unit. In these cases, family conflict is a strong risk factor (Bowers L, et al. 2010.)

JCAHO review of 65 inpatient suicides (1998):

- 1) 75% of suicides involved hanging in a bathroom, bedroom, or closet
- 2) 20% involved patients jumping from a roof or window.
- 3) Root causes include:

environment of care (non-breakaway bars, rods, or rails, lack of testing breakaway hardware, inadequate security)
inadequate patient assessment for suicide risk
incomplete reassessment or examination (failure to find contraband)
insufficient orientation or training of staff,
incomplete competency review, inadequate staffing levels
incomplete or infrequent patient observations
incomplete communication among caregivers, or information unavailable when needed
poor care planning (assigning patient to inappropriate unit)

4) Recommendations

revise suicide risk assessment/reassessment procedures
update staffing model
enhance staff training
update policies and procedures
monitor consistency of observation procedures
revise procedures for contraband detection
replace non-breakaway hardware and weight test
redesign security measures
make sure environment is free from access to harmful items
evaluate information transfer procedures
implement education for family/friends regarding suicide risk factors
institute policies regarding passes for suicidal patients
avoid reliance on suicide contracts

Hospital staff must always be aware that the risk of suicide may vary from hour to hour or day by day. Agitation, anxiety, pain, and delirium can create a psychiatric emergency.

There is ~33% chance of a lawsuit in the event of an inpatient suicide (Berman A 2005.) Human factor analysis is a promising way to develop a better understanding of how inpatient suicides can be prevented (Janofsky J 2009.)

Legal Liability

Suicide is the #1 liability claim against mental health professionals. Courts have established clear expectations that mental health professionals have the duty to attempt to prevent the suicide of the patient. The legal expectation is that the clinician will meet "the standard of care" in providing services to the client, i.e. "the clinician will exercise that degree of skill, care, and diligence exercised by members of the same profession/specialty practicing in light of the

present state of medical science.” (Note: the standard of care is not Best Practice.) The standard of care in the case of suicide prevention is a process, not an outcome, and would probably include the following (Simon R 2002):

- 1) asking the correct clinical questions about diagnosis, appropriate treatment, and suicide risk
- 2) identifying suicide risk factors - saying "no evidence of suicidal ideation" is not enough for a suicide assessment
- 3) distinguishing between acute and chronic risk. Acute risk requires emergency intervention. Chronic risk requires teaching the patient to manage their chronic illness.
- 4) developing an appropriate treatment plan and implementing it
- 5) assessing competence. A competent patient has the right to accept all, part, or none of the treatments offered, such as taking some of the medication, but not all, or withholding information from the treater, such as suicidal or homicidal impulses.
- 6) communicating with appropriate professionals
- 7) documenting the above, obtaining consultation if necessary

Two factors determine liability in a suicide death (Berman A 2006):

- 1) Foreseeability - Foreseeability is not predictability, but rather a commonsense notion that there was evidence before the suicide that the person involved was at risk. Clinicians sometimes worry that a risk assessment showing suicide risk increases their liability. If you do not do a risk assessment, you have not met the standard of care. If you do a good risk assessment and conclude the patient is not suicidal, suicide was probably not foreseeable.
- 2) Reasonable care – A treatment plan that follows from and is consistent with the client’s diagnosis and suicide risk is reasonable care. Treatment must focus on reducing acute risk by reducing risk factors that can be changed, and enhancing protective factors. Lethal means should be removed from the home. Family should be included in safety planning. The client and family should know whom to contact in emergencies. Considerations of least restrictive treatment should be mentioned as part of good documentation. Consultation should be obtained when appropriate. Countertransference should be managed.

A well-documented suicide risk assessment and management plan provide a solid legal defense, even if ultimately proven to be wrong.

Clinical judgments can be wrong without breaching the standard of care (Berman A 2006.)

Surveys indicate that a majority of families surviving the suicide of a loved one consider contacting a personal injury attorney, and 25% do. Once a consultation with an attorney has been made, the chances that a lawsuit will be initiated are great (Berman A 2006.) Malpractice lawsuits result from a bad outcome and bad feelings. Bad feelings can include rage, grief, surprise, betrayal, and abandonment. Most survivors experience guilt in the face of a loved one's suicide. This guilt is easily projected on the mental health professional as anger. Helping the family reduce their survival guilt is important in easing bad feelings. Alerting the family members to the risk of suicide early on in the illness may be helpful in reducing surprise, betrayal, and guilt. Outreach to families after a suicide is also recommended, although you must remember confidentiality often extends after a patient's death. It is all right to convey to the family that the clinician experiences a sense of loss. Answer whatever questions you are able. Emphasize that it is the illness that kills. Avoid implying you're a careless person, but don't be defensive. Do not blame the patient. Working supportively with a family does more to reduce legal risk than increase it. (Gutheil T 2004.)

80% of malpractice cases are won by the psychiatrist. Best defenses for clinicians are (Simon R 2004):

- Exercised reasonable professional judgment and compliance with the standard of care
- Suicide was not foreseeable
- Justified treatment as the least restrictive alternative
- Showed superceding, intervening acts of patient
- Government immunity
- Statute of limitations (usually 1-2 years)

Occupation

Suicide rates are higher for attorneys, dentists, nurses, social workers, artists, mathematicians, scientists, and somewhat higher for farmers. Male physicians have a suicide rate 1.4x that of the general population, while female physicians have a rate 2.27x the general population (Schernhammer E et al. 2004.)

Suicide is the 3rd leading cause of death for active-duty military personnel (after accidents and illness.) It accounts for 17% of all

deaths. Suicides among Army personnel were the highest in history in 2008. Most suicides occur in young white enlisted men in their home or barracks in the United States. 47% occur between the ages of 17-24. Risk decreases with age. Most suicides occur at the lower pay grades. In Iraq, suicides appear disproportionately among the youngest – 64% among 17-24 year olds (Lehman C 2004.) A 2015 article published in JAMA looking at suicide deaths in the military from 2001-2009 found that there was no difference in suicide rates for soldiers who had deployed to war zones and those who had not. A statistically higher risk was found for soldiers who had served less than a year and left the service, especially if their discharge was “less than honorable.” Finally, the suicide rate for young men 25-34 is higher in the civilian population than in the military (Reger M et al. 2015.)

Surviving Suicide

An individual’s suicide is traumatizing for the family and for the treater. Survivors of suicide loss experience grief like others who have had a sudden loss. But they also have additional challenges such as shame, guilt, and preoccupation with trying to understand why the death occurred. 50% of survivors choose not to reveal the cause of death to friends or acquaintances, cutting themselves off from the benefit of additional support (*Harvard Mental Health Letter* Nov 2009.)

Not much is known of the impact of a parent’s suicide on a child. There is evidence that the loss of a parent can make a child more vulnerable to depression and other mental illnesses as an adult. Although a wide variety of interventions are offered after a suicide death occurs, not much is known about their effectiveness. A reasonable approach would be the following (*Harvard Mental Health Letter* 2009):

- Normalize the grief
- Ease the guilt
- Respect differences in the grieving process
- Encourage openness in the counseling
- Plan ahead for difficult milestones
- Help the loved one make connections

Surviving a suicide death is apparently a risk for complicated bereavement.

Psychiatrists have a 51- 67% chance of having a client commit suicide, psychologists 25%. In one study, 38% suffered severe distress after a client suicide. Four factors were identified as sources of the distress: failure to hospitalize, a fateful treatment decision (e.g. letting patient go out on pass), negative reactions from the therapist's institution, and fear of a lawsuit. It is important for clinicians to seek support from colleagues (Hendin H et al. 2004, Gitlin M 2007.)

The American Association of Suicidology provides a series of resources for clinicians who have had a client die by suicide, including an open letter to therapist survivors, personal accounts, bibliography, and contacts for help. (www.suicidology.org)

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