Suicide, Risk and Assessment

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Goal: The goal of this course is to *provide you with an overview of suicide risk factors and supporting research* so that you can develop a systematic and comprehensive suicide risk assessment. In this article, we identify modifiable risk factors as well as non-modifiable risk factors. We examine the risk factors that are found most often in those who are at imminent or acute risk for suicide as well as those found in those at long-term risk for suicide. And, finally, we identify key protective factors that should be part of any meaningful suicide risk assessment.

Specific Objectives: At the completion of this course, participants will be able to:

1. Identify risk factors for acute suicide risk
2. Identify risk factors for long-term suicide risk
3. Identify population groups who are at risk for suicide
4. Identify modifiable risk factors as well as non-modifiable risk factors.

How do you or your organization go about assessing suicide risk? First, let's define the reason for conducting such an assessment – It is to try and predict who may be at risk, imminently as well as over the long-term, so that we can act to prevent suicidal behavior and reduce future risk. Now to a series of questions about how you or your organization assess for suicide risk -

- *Do you differentiate between acute high risk suicide factors and chronic high risk suicide factors when you screen for suicide risk?*

> Research in the last decade suggests that there are important differences in risk factors between those considered at imminent or acute risk of suicide, that is, at risk to kill themselves within minutes, hours, days or months (officially defined as < 12 months in the future) and those at chronic or long-term risk to kill themselves between 1 and 5 years post assessment.[1]
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> In fact, the more common risk factors for which organizations assess (in their suicide risk assessment forms) tend to be more often associated with long-term risk than short-term risk. Those longer-term risk factors include prior attempts, suicidal ideation, a plan, means, substance use, gender, age and co-occurring physical illness – to name only a few. Imminent risk factors include depression with co-occurring severe anxiety and/or agitation. Add depressive turmoil (switching between depression, sadness, anxiety and agitation) to the picture and imminent risk is even stronger. [2]

[1] Clarke and Fawcett (1992) at http://books.google.com/books?id=mTuoxob0ByQC&pg=PA55&lpg=PA55&dq=Jan+Fawcett,+M.D.+suicide&source=bl&ots=4ApD7XWI5g&sig=Dy8DneZN(1992)w6Ib5LLmhPXVM_VQGUs&hl=en&ei=sS7bS_aZKML58Aa8kr2pAg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CBsQ6AEwAw#v=onepage&q=Jan%20Fawcett%2C%20M.D.%20suicide&f=false

[2] Clarke and Fawcett (1992) at http://books.google.com/books?id=mTuoxob0ByQC&pg=PA55&lpg=PA55&dq=Jan+Fawcett,+M.D.+suicide&source

- *Do you differentiate between modifiable (changeable) risk factors and non-modifiable (unchangeable) risk factors? The former takes more time to assess, yet may provide more benefit to clients.*

> Identifying and treating modifiable risk factors such as anxiety and agitation, hopelessness, impulsivity, substance abuse and lack of self-efficacy regarding pain, certain chronic physical illnesses and mental health conditions is likely to be more significant in interrupting both imminent and long-term suicidal behavior than identifying a history of attempts or simply the existence of suicidal ideation.

- *Do your credentialed practitioners rely on their "clinical experience," implying with such statements that their "clinical experience" is sufficient and best practice? Are you sure that is a safe practice?*

> According to one prominent psychiatrist, Robert I. Simon, M.D., Director of the Program in Psychiatry and Law at Georgetown University,
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> *"Lawyers make short work of "clinical experience" testimony by defendants and expert witnesses in suicide malpractice cases. Clinical experience, unaided by evidence-based research, can be idiosyncratic, insufficient, uninformed, or just plain wrong when applied to complex, fact-specific suicide cases. Both in the clinical setting and in providing expert witness testimony, clinical experience can be colored by tradition, myths, and conservatism…. Every practitioner's clinical experience is necessarily limited, yet it may be proffered as the standard of care or even as "best practices."* [3]

- *Do you rely on your clients to tell you that they have suicide ideation, that is, specific thoughts of killing themselves, and a specific plan and access to the means to kill themselves – and only then determine that they may be at risk? Are you sure the data supports that practice? Do you think you will identify most of the people who might kill themselves that way?*

> Certainly this approach is in line with the current standard approaches to suicide risk assessment. A typical professional description of risk factors might be as follows: *The "highest risk group has suicidal ideation (thoughts of killing self), a plan (any plan so long as it is definite and detailed is high risk), high lethality (guns and walking in front of busses are more serious than overdosing on Tylenol and slashing wrists), few inhibitors (few reasons not to kill self), low self-control (especially drinking or using drugs)"*[4] *or "suicide ideation, threats, verbalizations, or self defeating behavior in between [suicide] attempts are the signs of a high risk person."*[5]
>
> If a person walks into your office with the characteristics of the 1st description

=bl&ots=4ApD7XWI5g&sig=Dy8DneZN(1992)
w6Ib5LLmhPXVM_VQGUs&hl=en&ei=sS7bS_aZKML58Aa8kr2pAg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CBsQ6AEwAw#v=onepage&q=Jan%20Fawcett%2C%20M.D.%20suicide&f=false

[3] Simon (2006) at http://www.jaapl.org/cgi/content/full/34/3/276
[4] Niolon (Dec 1999) at http://www.psychpage.com/learning/library/counseling/suicide.html
[5] Cutter (2000a) at http://www.suicidepreventtriangle.org/Suichap2.htm

above, that person is probably high risk. As you will see, the most critical factors for determining high risk in that description are the definite and detailed plan using high lethality means and the low self-control or impulsivity. The list in that 1st description does not call, however, for assessing for those characteristics that are most closely associated with greater immediacy of risk, e.g., depression and anxiety or agitation.

Looking at the 2nd description, the most predictive factor is the history of prior suicide attempts – and, as you will see later on, it is more predictive of future suicide attempts than of future suicide completion.

In both descriptions, little information is provided about the modifiable risk factors to which one could begin responding immediately – actually those factors that are most important to reducing future risk. So, as risk assessments, they may provide some information about who to lock up (the person with the specific, lethal plan) or who to watch (the person with a history who has not altered her or his pattern) for the purpose of preventing suicidal behavior in the near term, but neither of them can be *well* used to direct your treatment to reduce future risk.

Let's look at some research that supports these statements.

Results from a national survey, identifying prevalence of DSM-III-R disorders, found that 13.9% of those surveyed reported at least one instance of suicidal ideation in their lifetime. Of those, about a third moved from having ideation to developing a plan. *A plan is an important indicator of risk in that 72% of those with a plan actually made an attempt.* However, a quarter of those with ideation made a suicide attempt without a plan.[6] So, while having a plan definitely increases risk, *not having a plan is not an indication that someone will not attempt or commit suicide*.

Clearly, anyone with suicidal ideation needs to be evaluated further. Interestingly, individuals with major depression and generalized anxiety disorder (GAD) are considered at very high risk for suicide. *And, research has shown that those with both conditions are more likely to report suicidal ideation than those with major depressive disorder alone*.[7] Depending on numerous factors that we will examine later on, individuals with major depression and generalized anxiety disorder and suicidal ideation may have no plans but may, instead, act impulsively and kill themselves.

The problem with focusing on ideation, plan and means only is that individuals who may be at risk and do not have suicidal ideation or plans and/or those who do not report said thoughts and plans will be missed.

For example, members of the highest risk group, i.e., white males over 65, have often worked out detailed and quite lethal suicide plans and act on those plans. Those people, if they reported their thoughts and plans to you (and they may not), would be identified with an "ideation, plan, means" assessment of suicide risk.

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[6] Kessler et. al. (July 1999) at http://archpsyc.ama-assn.org/cgi/content/abstract/56/7/617

[7] Simon (2004) at http://books.google.com/books?id=M9ZsoxUJyW8C&pg=RA1-PA41&lpg=RA1-PA41&dq=Long-term+and+short-term+risk+factors+in+suicide&source=bl&ots=7fI2XhX4iq&sig=feAiuu6leDcGYIQRGjiNHD9PqVM&hl=en&ei=XqSwS76_E8GBlAerzqzJCQ&sa=X&oi=book_result&ct=result&resnum=5&ved=0CCEQ6AEwBA#v=onepage&q=Long-term%20and%20short-term%20risk%20factors%20in%20suicide&f=false

However, *younger people tend to show lower suicidal intent than older males and may have no suicidal ideation or plans preceding a suicide attempt.*[8] Those individuals would be missed by the "ideation, plan, means" focus in the assessment of suicide risk. If they are impulsive, have conflicted relationships and have access to guns, they may be at significant risk – with no ideation and no plan.

Interestingly, *three out of four studies reported in a recent 2007 review of the literature on psychiatric inpatient suicide that significant numbers of individuals who made suicide attempts did not report ideation* – 78% denied suicidal ideation prior to the act in one study,[9] 40.9% did not express any suicidal thoughts prior to acting in another study[10] and, in the 3rd study, more individuals who did not make a suicidal act identified suicidal ideation than those who did.[11]

Findings from a review of 100 consecutive serious suicide attempts in a major Florida city suggest that a provider would miss most of the attempters if they relied only on those three indicators of suicide risk.[12] Note that a "serious suicide attempt" was one for which some form of medical treatment was required prior to admission to the psychiatric unit.

Jan Fawcett, M.D., a prominent researcher in mood disorders and suicide, states that "research has shown that people often either don't communicate or flat out deny suicidal intentions to a mental health professional before they attempt suicide. This is important because many professionals think that if someone denies suicidal intent, they won't commit suicide – and that is far from the truth."[13]

He goes on to describe his research with psychiatric inpatients in which he found that 78% of patients denied suicidal thoughts and intent as their last communication to mental health professionals before their suicide. Patient denial of ideation or intent cannot be relied upon [as a sole indicator of risk], he says.[14]

Other studies of the general population, not just a psychiatric population, find similar results. One such survey of people who made suicide attempts found that only a quarter of them had reported suicide ideation or plans to a professional in the 12 months prior to the attempt.[15]

Other studies reported in this review found that anywhere from 22% to 51% of patients receiving psychiatric treatment reported improved symptoms prior to their suicide.[16] This may not mean that these patients did not have suicidal ideation and plans, but it certainly suggests that these were not identified to their providers – or they may not have had ideation, but acted impulsively.

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[8] Brent et. al. (1999); Shaffer et. al. (1996) – Cited in Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=41
[9] Busch et. al. (2003) – Cited in Combs and Romm (2007) at http://www.primarypsychiatry.com/aspx/articledetail.aspx?articleid=1388
[10] Deisenhammer et. al. (2000) - Cited in Combs and Romm (2007) at http://www.primarypsychiatry.com/aspx/articledetail.aspx?articleid=1388
[11] Fawcett et. al. (1987) - Cited in Combs and Romm (2007) at http://www.primarypsychiatry.com/aspx/articledetail.aspx?articleid=1388
[12] Hall (1999) at http://www.drrichardhall.com/suicide.htm or http://www.drrichardhall.com/Articles/suicide.pdf
[13] Bender (June 6, 2003) at http://pn.psychiatryonline.org/content/38/11/28.1.full
[14] Bender (June 6, 2003) at http://pn.psychiatryonline.org/content/38/11/28.1.full
[15] Blackmore et. al. (2008) at http://bjp.rcpsych.org/cgi/reprint/192/4/279
[16] Fawcett et. al. (1987) - Cited in Combs and Romm (2007) at http://www.primarypsychiatry.com/aspx/articledetail.aspx?articleid=1388

It is important to look at risk factors beyond "ideation, plan and means" – and not simply assume that no ideation and/or no plan equals no risk.

The list of risk factors given in our 1st description of risk factors above also included hopelessness (e.g., "few reasons to live") and impulsivity as key considerations. As we will see later, these factors, in combination with a history of prior attempts, are increasingly thought to be the key indicators of long-term risk – and may contribute significantly to differentiating those who engage in suicidal actions from those who do not – at least down the road.

Not even mentioned in either description of risk factors are the issues of anxiety, agitation and "psychache," (defined as "a state of psychic pain that an individual experiences as intolerable and resistant to any efforts to produce relief). Yet these conditions are extremely important for identifying those at more acute or imminent risk of suicide – and who may need to be "locked up" and whose anxiety requires immediate response.

- *While we've already touched on this topic, consider - Do you determine if your clients have previous histories of suicide attempts, but with no current reported suicidal ideation, classify them as "no risk" and stop evaluating for factors or patterns that may identify risk? Are you sure the data supports that practice?*

Prior suicide attempts are generally considered one of the key risk factors for suicide.[17] *The risk is higher in the first 6 months following an attempt*, but continues in lower rates for 2 years post attempt. Almost 1% of individuals who attempt suicide die within 1 year, and approximately 10% eventually complete suicide.[18] Fawcett states that there are differences between suicide attempters and suicide completers, with attempters less likely to complete a suicide and completers less likely to have a prior attempt.[19] Regardless, its presence should certainly stimulate some questioning about other risk factors and about the person's individual patterns regarding suicide, e.g., previous suicide triggers, early warning signs and action patterns.

In looking at other risk factors, at the very least, we should be looking at those that we can impact – modifiable risk factors. Previous suicide attempts constitute static risk factors and cannot be changed. Interestingly, Aaron Beck and colleagues have conducted several prospective studies, i.e., following groups of individuals over several years, and have found that scores on the Beck Hopelessness

[17] Simon (2004) at http://books.google.com/books?id=M9ZsoxUJyW8C&pg=RA1-PA41&lpg=RA1-PA41&dq=Long-term+and+short-term+risk+factors+in+suicide&source=bl&ots=7fI2XhX4iq&sig=feAiuu6leDcGYIQRGjiNHD9PqVM&hl=en&ei=XqSwS76_E8GBlAerzqzJCQ&sa=X&oi=book_result&ct=result&resnum=5&ved=0CCEQ6AEwBA#v=onepage&q=Long-term%20and%20short-term%20risk%20factors%20in%20suicide&f=false

[18] Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf

[19] Clark and Fawcett (1992) at http://books.google.com/books?id=mTuoxob0ByQC&pg=PA55&lpg=PA55&dq=Jan+Fawcett,+M.D.+suicide&source=bl&ots=4ApD7XWI5g&sig=Dy8DneZNw6Ib5LLmhPXVM_VQGUs&hl=en&ei=sS7bS_aZKML58Aa8kr2pAg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CBsQ6AEwAw#v=onepage&q=Jan%20Fawcett%2C%20M.D.%20suicide&f=false

Scale are more predictive of suicide risk than previous suicide attempts – ***and hopelessness can be changed***[20] ***– as can severe anxiety, which is a significant risk factor for acute risk***.[21]

- *Do you have a long-list of possible suicide risk factors that you run through with your clients, i.e., asking them if they have any of the following conditions from the list either handed to them or read to them, and then, based on some number of factors identified, determine low, moderate or high risk? Do you think that is a sufficient way to identify risk?*

  Some of the risk factors, such as anxiety, psychache, hopelessness or impulsivity, may require more follow-up questioning to get an accurate picture of severity and/or risk situations? Do you do that kind of "drill-down" questioning when evaluating for suicide risk – or do you just ask if the person is 'hopeless' or 'impulsive' or anxious and check 'yes' or 'no' on your form?

This set of questions is really about how you conduct assessment interviews. To begin with, you may need to ***make sure that you and your client agree on definitions.***

Consider the fact that the definition of ***suicidal ideation*** may not be the same for all people. For example, if a person states that they are "tired of living," do you consider that a suicidal ideation? Do they? For researchers, that might be considered a "low lethal suicidal ideation." What is it for you, your organization and your clients?

The World Health Organization reported research findings in which adolescents reported almost twice as many "suicide attempts" as did psychiatrists interviewed. The researchers hypothesized that the two groups might be using different definitions of "***suicide attempt***" – and that this definition difference contributed to the differing reports.[22]

When you are evaluating your clients for suicide risk (and, if you are following a structured guide or questionnaire) do you make sure that you and your clients are using the same definitions? Do you simply read the questions to your clients? Or do you include the questions in a clinical interview format, phrasing them in different ways to make sure they understand what you are asking and to increase the likelihood that hesitant individuals will communicate openly with you?

This is especially important in evaluating the risk factors that you may be able to impact such as hopelessness, impulsivity, helplessness in the face of chronic illness or pain, or even "psychache," [23]

You may need to use tools such as Beck's Hopelessness Scale or assess for impulsivity by asking questions about things such as violent rages, assaultive

[20] Beck et al. (1985) at http://www.ucs.louisiana.edu/~rmm2440/Beck_Brown_Berchick_et_al(1990).pdf; Beck, et. al. (1990) at http://www.ucs.louisiana.edu/~rmm2440/Beck_Brown_Berchick_et_al(1990).pdf

[21] Clarke and Fawcett (1992) at http://books.google.com/books?id=mTuoxob0ByQC&pg=PA55&lpg=PA55&dq=Jan+Fawcett,+M.D.+suicide&source=bl&ots=4ApD7XWI5g&sig=Dy8DneZNw6Ib5LLmhPXVM_VQGUs&hl=en&ei=sS7bS_aZKML58Aa8kr2pAg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CBsQ6AEwAw#v=onepage&q=Jan%20Fawcett%2C%20M.D.%20suicide&f=false

[22] World Health Organization (2000) at http://www.searo.who.int/LinkFiles/List_of_Guidelines_for_Health_Emergency_prevent-suicide-school.pdf

[23] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=R98

behavior, arrests, destruction of property, spending sprees, sexual indiscretions and behavior when drinking or drugging and so on.[24] Your clients may not see themselves as impulsive so – simply asking them if they are may not give you the information you want or need.

- *Do you identify which factors from that list may be most important for that specific individual – and/or which factors you need to act on immediately - to try and alter?*

Anxiety, hopelessness, impulsivity, substance abuse, affective disorders, schizophrenia, borderline personality disorder, anxiety and panic disorders, loss of self-efficacy in response to pain and/or chronic or life-threatening physical illnesses, PTSD, key social losses such as relationships, job, financial, freedom, culture – these are all issues that we can help people deal with – and these are all risk factors.

We should, in our evaluations, determine which of these need attention – and what kinds of attention, e.g., rapid and intense or not – to help the person stabilize and see life in a more hopeful and effective manner and/or respond less impulsively to distress.

Simply completing a form with scores of "yes" or "no" added to a total may not direct us appropriately. An individual may have long-term risk factors but not require hospitalization for immediate intervention. Instead, for example, they may need immediate attention for anxiety or substance use. For those at longer-term risk, a good referral (with supportive follow-up) for learning to manage pain, dialectical behavior therapy for reducing impulsivity or cognitive behavior therapy for depression and hopelessness may be needed.

- *Do you use standardized suicide risk assessments? If not a formal assessment test or questionnaire, do you have a structured guide you follow yourself, provided by you or by your organization – to make sure you consider all the critical aspects of risk? Do you believe that structure increases consistency and reduces error?*

- *Or - do you accept documentation such as "no S.I." (meaning "no suicidal ideation") as an indication that your providers have sufficiently evaluated the risk of suicide in a given individual? Do you believe that is a safe practice?*

These two questions go together.

With the general move in healthcare towards "error management", becoming "high reliability organizations" and increasing patient safety, ***structured risk assessments should become the norm – no more relying on "clinical experience" or trusting that providers will be able to remember to cover all significant risk factors in their assessments (without "cueing") – and that writing "no S.I." means that all other factors were considered.***

[24] Simon (20024) at http://books.google.com/books?id=M9ZsoxUJyW8C&pg=RA1-PA41&lpg=RA1-PA41&dq=Long-term+and+short-term+risk+factors+in+suicide&source=bl&ots=7fI2XhX4iq&sig=feAiuu6leDcGYIQRGjiNHD9PqVM&hl=en&ei=XqSwS76_E8GBlAerzqzJCQ&sa=X&oi=book_result&ct=result&resnum=5&ved=0CCEQ6AEwBA#v=onepage&q=Long-term%20and%20short-term%20risk%20factors%20in%20suicide&f=false

As organizations and clinical activities become more complex, the limits in human memory and attention become more critical. Processes must be designed to help us overcome those limits and thereby diminish errors in our clinical activities. Standardization, specific guidelines, written "cues" – all help us cover all that we must to be maximally effective for our clients.

- *Do you know who you should monitor most closely – who is at risk after treatment actually begins?*

Here are some characteristics to consider -

1. **People with psychiatric hospitalizations:** Since inpatient psychiatric **hospitalization** is frequently associated with suicidal ideation and/or action, it **is a high risk time** for those admitted subsequent to a suicide attempt.
   - Risk of suicide in people in inpatient psychiatric treatment is reported to be highest during the first 7 days after admission.
   - Of those who kill themselves while hospitalized, more do so off-site than on-site during both approved and unapproved leaves.
   - Those with approved leaves who killed themselves were judged by staff to be no or low risk. [25]
   - A quarter of the people who killed themselves post-discharge from an inpatient psychiatric admission did so within one month of discharge
   - Slightly over half of those who killed themselves post-discharge did so within 6 months.[26]
   - Multiple previous hospitalizations, increased length of stay, longer duration of illness and male gender are also strongly associated with suicide risk during inpatient hospitalization.[27]
2. **People who begin feeling more energy as a result of treatment but still feel hopeless.** This could explain suicides during and following treatment – both inpatient and outpatient – especially if some of the key psychological factors, such as hopelessness or impulsivity, are not addressed in the treatment provided.
3. **People who are identified as "at risk",** e.g., may have prior attempts, **and are going through periods of increased distress without accessing usual coping strategies** (e.g., a highly distressed alcoholic in early abstinence). [28]

   One study of people with schizophrenia found that a quarter of those expressing low levels of suicidality (as in "I'm tired of living") may progress to higher levels of suicidality within 9 weeks.[29] The authors stated that they evaluated risk every two weeks for the study purposes; thus, they identified those at low risk initially. They stated that they might not have found them if they had not been asking regularly. People with schizophrenia, especially those who are younger and new to their condition, are at risk for suicide – and

[25] Combs and Romm (2007) at http://www.primarypsychiatry.com/aspx/articledetail.aspx?articleid=1388
[26] Combs and Romm (2007) at http://www.primarypsychiatry.com/aspx/articledetail.aspx?articleid=1388
[27] Combs and Romm (2007) at http://www.primarypsychiatry.com/aspx/articledetail.aspx?articleid=1388
[28] Cutter (2000b) at http://www.suicidepreventtriangle.org/Suichap4.htm#4_Model
[29] Young et. al. (1998) at http://schizophreniabulletin.oxfordjournals.org/cgi/reprint/24/4/629.pdf

should be reassessed for risk regularly.

4. **Certainly people with high levels of co-occurring anxiety and agitation in combination with the mental health conditions that are also high risk, e.g., mood disorders, substance abuse and/or schizophrenia.**
5. **Perhaps we should be checking regularly with all people with any risk factors – for the purpose of finding early warning signs.** The fact that people who are judged by staff to be improved complete suicide during and immediately after treatment may indicate that we need to look at what we are assessing when we determine that an individual is at no to low risk – and whether we need to look more carefully at additional risk factors. If the approach is the "ideation, plan, means" approach, it may not be sufficient.

Suicide is not that easy to predict. As noted, the reason for attempting to predict risk is so that we can act to prevent suicidal action. However, actual suicide among those who possess identified risk factors occurs quite infrequently, that is, more people with risk factors do NOT kill themselves than do. Thus, the ability to accurately predict suicide is low. There simply is no definitive measure to predict suicide or suicidal behavior[30] – imminently and/or in the long-term.

However, we can ***identify risk factors – and we can design our treatments to address those that we can impact.*** In so doing, we will be contributing to improved quality of life in our clients and reducing their risk of later suicide. Our focus here is not just on identifying those at imminent risk but also those at long-term risk – and intervening to interrupt an imminent suicidal act as well as to reduce those conditions contributing to long-term risk.

One reason that suicide is so difficult to predict is that it is a *complex phenomenon* with numerous possible causes. Suicide may have a basis in depression or substance abuse, and it simultaneously may relate to social factors like community breakdown, loss of key social relations, economic depression, or political violence. ***Indeed, it may be that emotional states like hopelessness and impulsiveness link these different levels of human experience – at least as it relates to long-term risk.*** It is important not to lose this sense of complexity if we are to fashion intervention programs that can prevent suicide[31] - or to identify those most at risk.

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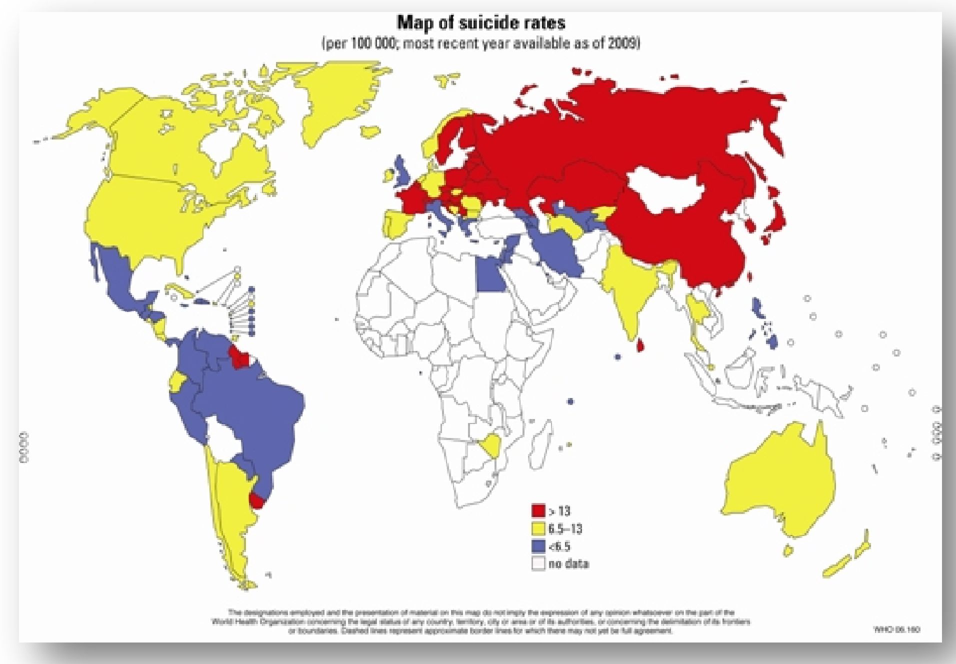
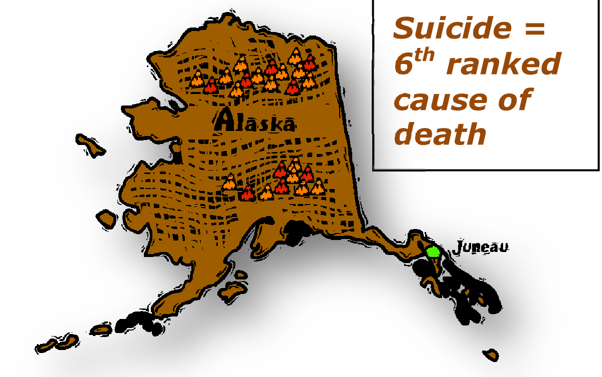
[30] MedicineNet.com (Oct 2007) at http://www.medicinenet.com/script/main/art.asp?articlekey=84760&page=6#toco
[31] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=R10

How many people commit suicide and who are they? Looking at it worldwide, suicide is among the *top 20 leading causes of death* for all ages. Every year, nearly one million people die from suicide. That's a global mortality rate of 16 per 100,000 people – or one death every 40 seconds.[32]



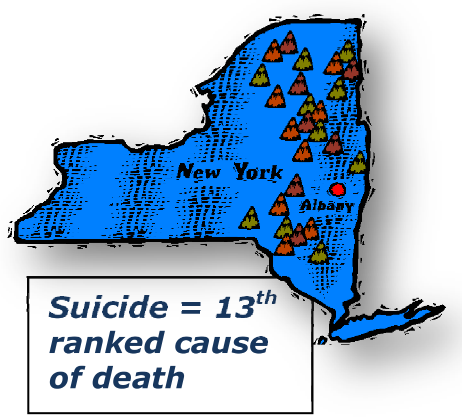
In the last 45 years suicide rates have increased by 60% worldwide. Suicide is among the three leading causes of death among those aged 15-44 years in some countries, and the second leading cause of death in the 10-24 years age group; these figures do not include *suicide attempts which are up to 20 times more frequent than completed suicide*.[33]

Fortunately, the United States is not one of those countries in which suicide ranks 2nd or 3rd as a cause of death – at least in the overall population. *The Center for Disease Control (CDC) data for 2006 lists suicide as the 11th leading cause of death out of the top 15 causes.*[34] If you are interested in how suicide ranks in your state, the CDC breaks out the top 15 causes of death for each state. For example,[35]



- Those states in which suicide is a higher ranked cause of death include Alaska and Nevada, where it is the *6th ranked cause* of death in both states, and Colorado, where it is the 7th ranked cause of death.
- Those states in which suicide is a less frequent cause of death include New York, Massachusetts and Connecticut, where suicide is the *13th ranked cause of death*.

[32] WHO (2009a) at http://www.who.int/mental_health/prevention/en/
[33] WHO (2009a) at http://www.who.int/mental_health/prevention/en/
[34] CDC/NCHS (2006) at http://www.cdc.gov/nchs/data/dvs/LCWK9_2006.pdf
[35] CDC/NCHS (2006) at http://www.cdc.gov/nchs/data/dvs/LCWK9_2006.pdf



- Interestingly, in the District of Columbia (that is, Washington, D.C.), suicide is not among the top 15 causes of death.
- Generally suicide rates in the U.S. out-number homicides by at least 3 to 2 – and this has been the case for the past 100 years.[36] Suicide makes the list of the top 15 causes of death in all states except D.C. Homicide is a big cause of death in D.C., ranking as the 7th cause of death, while in all other states, except Louisiana, homicide occurs less frequently than suicide and sometimes doesn't even make the list of the top 15 causes of death. *And yet, a great deal of local and national funding and effort has been devoted to the problem of homicide in contrast to suicide*.[37]

Suicide rates have increased in the United States as well as worldwide. From 1950 to 2005, suicide rates in the US increased from 7.6 per 100,000 to 11.0 per 100,000. The rates of suicide by females have almost doubled over this 55 year period.[38]

For a comparative perspective on suicide as a cause of death in the U.S., consider the following:[39]

- Almost 4 times as many Americans died by suicide than died in the Vietnam War during the same time period.
- Two hundred thousand more people died of suicide than died of AIDS in the past 20 years.
- And, as noted, more people die by suicide than by homicide.

As the U.S. Institute of Medicine (IOM) states, *there has been in the past and is currently a dramatic mismatch in terms of the federal dollars devoted to the understanding and prevention of suicide contrasted with other diseases of less public health impact.*[40]

In 2000, the IOM was commissioned jointly by a large number of federal agencies to examine the state of the science base related to suicide, gaps in knowledge, and strategies for prevention to help in defining new directions for addressing the issue of suicide. Its report, *Reducing Suicide: A National Imperative*,[41] is an excellent starting place for any organization and/or individual wishing to improve efforts in preventing suicide.

Definitions: Before getting into risk factors and processes for assessing for suicide risk, let's look at definitions of terms. These come directly from the IOM's report.[42]

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[36] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=1
[37] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=R11
[38] WHO (2009b) at http://www.who.int/mental_health/media/unitstates.pdf
[39] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=1
[40] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=R10
[41] Goldsmith et. al. (2002) atat http://books.nap.edu/catalog.php?record_id=10398; Available at no charge on the Internet.
[42] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=27; Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=28

- ***Suicide:*** Fatal self-inflicted destructive act with explicit or inferred intent to die.
- ***Suicide attempt:*** A non-fatal, self-inflicted destructive act with explicit or inferred intent to die. (Note: important aspects include the frequency and recency of attempt(s), and the person's perception of the likelihood of death from the method used, or intended for use, medical lethality and/or damage resulting from method used, diagnoses, and demographics.)
- ***Suicidal ideation:*** Thoughts of harming or killing oneself. (Frequency, intensity, and duration of these thoughts are all posited as important to determining the severity of ideation.)
- ***Suicidal communications:*** Direct or indirect expressions of suicidal ideation or of intent to harm or kill self, expressed verbally or through writing, artwork, or other means. The more concrete and explicit the plan is and the more lethal the intended method, the greater the seriousness of suicidal communications. Suicidal threats are a special case of suicidal communications, used with the intent to change the behavior of other people.
- ***High-risk groups:*** Those that are known to have a higher than average suicide rate.
- ***Suicidality:*** All suicide-related behaviors and thoughts including completing or attempting suicide, suicidal ideation or communications.

Who's at risk of suicide? Again, let's provide some definitions first. These come from SAMHSA.[43]

- ***Risk factors*** may be thought of as leading to or being associated with suicide; that is, people "possessing" the risk factor are at greater potential for suicidal behavior.

  Risk factors can be categorized into those that are

  1. ***Static or unchanging (sometimes called "actuarial")*** - These include things like age, gender, family history, prior suicide attempts, ethnicity, and developmental history. Risk factors that cannot be changed (such as a previous suicide attempt) can alert others to the heightened risk of suicide during periods of the recurrence of a mental or substance abuse disorder or following a significant stressful life event [44]
  2. ***Dynamic and can be changed –*** These include various conditions and/or responses to those conditions such as anxiety, agitation, hopelessness, impulsivity, substance abuse, depression, schizophrenia, chronic pain, chronic physical illness, loss of job, money or key relationships, lack of social support and so on.

[43] SAMHSA (2001) at http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/intro.asp
[44] SAMHSA (2001) at http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/intro.asp

3. ***Individual risk factors and/or patterns –*** Providers need to evaluate individual risk factor patterns as well. As noted previously, this may require looking for patterns in prior suicidal episodes (ideation and/or attempts).

   Risk Factors

   Static, Unchanging, Nonmodifiable

   Dynamic, changing, modifiable

   Individual patterns

   In identifying patterns of precipitating events or triggers for suicidal ideation or action, one can identify individual patterns of response to these triggers or stressors for which alternate responses can be taught. If, as a provider, you are not looking for these individual patterns, then you may not "drill down" on a person's history as it relates to suicide. Interestingly, Simon cites a 2003 study in which precipitating events were identified in 25 of 26 suicides studied,[45] suggesting that such "drilling down" might actually be important.

   In other instances, it may mean looking at some factors that may not be identified as significant in the literature but may be relevant for a specific individual. For example, as noted by Robert Simon, M.D., "Although some psychiatric literature indicates that command hallucinations account for relatively few suicides in schizophrenic patients, the existence of such commands to kill self are important suicide risk factors that require careful assessment. For example, are the voices acute or chronic, systonic or dystonic, familiar or unfamiliar voices? Can the patient resist the commands? Has the patient ever attempted suicide in obedience to the voices?"[46] It is here that clinical experience can be of great value.

- ***Protective factors,*** on the other hand, reduce the likelihood of suicide. They enhance resilience and may serve to counterbalance risk factors. We will examine these later on.

Risk Factors: Dynamic and Changeable - Let's look further at these risk and protective factors. We will start with those risk factors that are dynamic and changeable and then move on to those that are more static.

The dynamic risk factors tend to be psychological variables, not history or demographic characteristics. In fact, in a review of 46 cohort or case-controlled studies that used

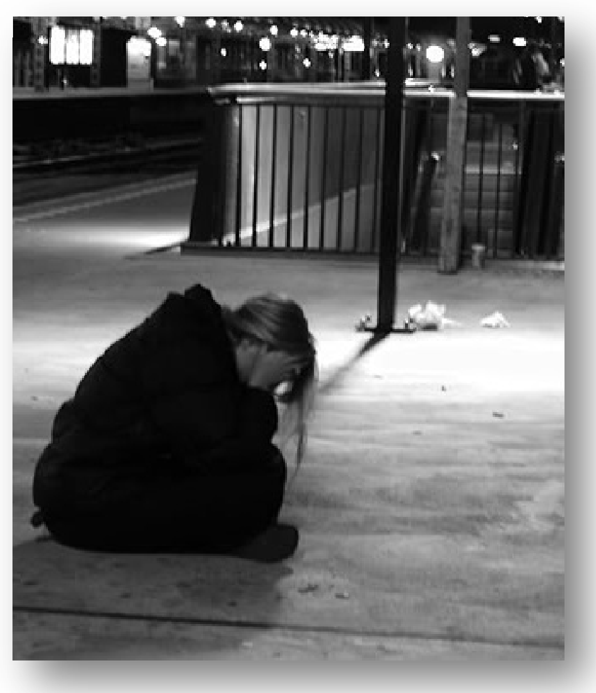
[45] Maltsberger (2003) - Cited in Simon (2004) at http://books.google.com/books?id=M9ZsoxUJyW8C&pg=RA1-PA41&lpg=RA1-PA41&dq=Long-term+and+short-term+risk+factors+in+suicide&source=bl&ots=7fI2XhX4iq&sig=feAiuu6leDcGYIQRGjiNHD9PqVM&hl=en&ei=XqSwS76_E8GBlAerzqzJCQ&sa=X&oi=book_result&ct=result&resnum=5&ved=0CCEQ6AEwBA#v=onepage&q=Long-term%20and%20short-term%20risk%20factors%20in%20suicide&f=false

[46] Simon (2004) at http://books.google.com/books?id=M9ZsoxUJyW8C&pg=RA1-PA41&lpg=RA1-PA41&dq=Long-term+and+short-term+risk+factors+in+suicide&source=bl&ots=7fI2XhX4iq&sig=feAiuu6leDcGYIQRGjiNHD9PqVM&hl=en&ei=XqSwS76_E8GBlAerzqzJCQ&sa=X&oi=book_result&ct=result&resnum=5&ved=0CCEQ6AEwBA#v=onepage&q=Long-term%20and%20short-term%20risk%20factors%20in%20suicide&f=false

standardized or structured assessments of psychological dimensions, five constructs were identified as consistently associated with completed suicide. These are hopelessness, impulsivity/aggression, depression, anxiety, and social disengagement.[47] Thinking back to the questions at the start of this article about how most suicide risk assessments are done, consider how often these constructs are evaluated in individual clients – and how thoroughly, especially from the perspective of relationship to suicide risk.

We're going to start with a risk factor that may be a key indicator that clinicians can use in figuring out which individuals with the other various risk factors or even combinations of them may be more at risk. Remember – that over 95% of the people with some of the strongest risk factors, e.g., mental disorders, do not commit suicide. Ten percent of those who do kill themselves in the U.S. do not have mental disorders.[48] Any variables that may increase clinicians' abilities to differentiate among all of these factors can only be helpful.

- ***Hopelessness*** *is a very key risk factor – perhaps the key factor that provides a* *__means for determining relative suicide potential within the other high risk groups__* *defined in terms of demographic characteristics (e.g., age, gender, ethnicity, unemployment status, occupation and so on) and/or past history (e.g., previous suicide attempts) and/or present life and health conditions.* The New York Task Force on Life and the Law identified ***hopelessness as the link between suicide and depression***.[49]



As the IOM report states, "***Over 30 years of research confirms the relationship between hopelessness and suicide across diagnoses. Hopelessness can persist even when other symptoms of an associated disorder, such as depression, have abated.***"[50] *Please note this statement*. It is critically important in evaluating research and conclusions. Since hopelessness is considered one symptom of depression, some researchers do not break it out as a separate measure or indicator of risk – instead focusing on the presence or absence of depression rather than hopelessness as a separate state. Thus, they may lose the differentiating value of hopelessness within their depressed groups.

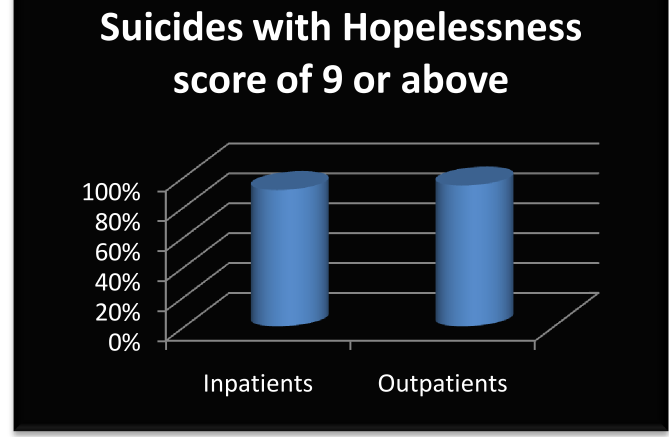
Hopelessness[51] might be defined as the feeling that everything is wrong and nothing will turn out well; the expectation that one's situation is impossible to solve or change; the

[47] Conner et. al. (Winter 2001) at http://www.ncbi.nlm.nih.gov/pubmed/11775713
[48] New York State Task Force on Life & the Law (Oct 2001) at http://www.health.state.ny.us/nysdoh/consumer/patient/chap1.htm
[49] New York State Task Force on Life & the Law (Oct 2001) at http://www.health.state.ny.us/nysdoh/consumer/patient/chap1.htm
[50] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=2
[51] For information purposes, go here to see a brief description of nine types of hopelessness – Borchard (2009) at http://psychcentral.com/blog/archives/2009/10/14/the-9-types-of-hopelessness-and-how-to-overcome-them/. Note that these types of hopelessness are not related to Beck's definition of hopelessness. This is provided for interest's sake.

conceptualization of one's situation as untenable. Such a view can lead people to believe that suicide is the only feasible strategy for dealing with their seemingly insoluble problem.[52]

A frequently used measure of hopelessness is the Beck Hopelessness Scale,[53] developed by Aaron Beck, M.D., the well-known cognitive therapist. The Beck Hopelessness Scale is a 20-item true-false self-report instrument that assesses the degree to which a person holds negative expectations about the future. It has been found to be highly predictive of suicidality. *One of the positives in this is the fact that hopelessness is subject to direct clinical intervention, while other often-cited risk factors such as age, gender, prior suicide attempts, family history and other more static variables are not.*

Beck and his colleagues have conducted prospective long-term studies of 165 inpatients hospitalized with suicidal ideation and 1958 outpatients, the majority of who were diagnosed with affective and/or anxiety disorders. They examined the suicide predictability of the Beck Hopelessness Scale. In both populations, they found that hopelessness was predictive of actual suicide.



- Of the 11 inpatients who eventually committed suicide, ten (90.9%) had Beck Hopelessness Scale scores of 9 or greater. The mean Beck hopelessness score was significantly higher in the patients who committed suicide than in those who did not.[54]
- Of the 17 outpatients who eventually committed suicide, sixteen (94.2%) had a hopelessness scale score of 9 or greater. Individuals with a score of 9 or higher in this outpatient group were 11 times more likely to commit suicide than the rest of the group.[55]

The Beck Hopelessness Scale predicted suicide risk better than scores on the Beck Depression Inventory, gender, previous suicide attempts and a diagnosis of alcoholism. In fact, Beck and his colleagues note that there is a growing body of research suggesting that hopelessness is more directly related to suicide intent than depression alone. He cites studies that have also found hopelessness to be the best predictor of suicide among populations of people with schizophrenia (another high risk group).[56]

Beck and his team state that one objection to the use of the Beck Hopelessness Scale is that it tends to identify people as at high risk for suicide who do not go on to kill themselves, i.e., it has a high false positive rate (59%). It tends to identify more false positives than the Beck Depression Inventory, gender, previous history of attempts or diagnoses of alcoholism do. Regardless of this high false positive rate, since the issue for clinicians is to find a strategy for ensuring that those who receive treatment related to suicide risk include those who are at most risk to actually suicide, measures of

[52] Beck et. al. (1990) at http://www.ucs.louisiana.edu/~rmm2440/Beck_Brown_Berchick_et_al(1990).pdf
[53] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=26
[54] Beck et. al. (1985) at http://www.ucs.louisiana.edu/~rmm2440/Beck_Brown_Berchick_et_al(1990).pdf
[55] Beck et. al. (1990) at http://www.ucs.louisiana.edu/~rmm2440/Beck_Brown_Berchick_et_al(1990).pdf
[56] Beck et. al. (1990) at http://www.ucs.louisiana.edu/~rmm2440/Beck_Brown_Berchick_et_al(1990).pdf

hopelessness enhance that likelihood.[57] In fact, helping people become hopeful regardless of their risk for suicide could be considered a major positive goal of treatment.

Hopelessness is treatable. There have been a number of manuals[58], [59], [60] for treating suicidal behavior with varying forms of cognitive behavioral therapy, including cognitive restructuring, problem-solving and other such strategies. One study found that cognitive behavior therapy, designed specifically to prevent suicide attempts, reduced hopelessness and suicide re-attempts when compared with usual care, which included case management contacts and referral to other treatment settings.[61]

Treatable

Another study, determining the effect of cognitive therapy for depression on hopelessness, found greater improvements in hopelessness with cognitive therapy than with pharmacotherapy.[62]

Psychological constructs that relate to hopelessness include

- learned helplessness,
- negative attribution styles,
- lack of self-efficacy, and
- "psychache", to name a few.

Various reported studies find relationships between these conditions and hopelessness and increased suicidality. One study reported by the IOM found that subjective reports of depression and distress (as might be found in "psychache") more strongly predict suicide than objective measures.[63] Another study found that 56 percent of suicidal patients wanted to commit suicide to escape their "psychic pain." Those reporting this motive had high levels of hopelessness.

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[57] Beck, et. al. (1990) at http://www.ucs.louisiana.edu/~rmm2440/Beck_Brown_Berchick_et_al(1990).pdf
[58] Rush et. al. (July 1982) at http://ajp.psychiatryonline.org/cgi/content/abstract/139/7/862
[59] Berk et. al. (2008) at http://books.google.com/books?id=auSXqwwtYPgC&pg=PA453&lpg=PA453&dq=Cognitive+Therapy+Treatment+Manual+for+Suicide+Attempters.&source=bl&ots=24R-xvUtMh&sig=bRMWx5EufGQTygpessAkYAEMcD0&hl=en&ei=zmzcS4LsEsL88AaH-8TrBw&sa=X&oi=book_result&ct=result&resnum=3&ved=0CBwQ6AEwAg#v=onepage&q=Cognitive%20Therapy%20Treatment%20Manual%20for%20Suicide%20Attempters.&f=false
[60] Brown et. al. (2002)
[61] Brown et. al. (Aug 3, 2005) at http://www.behavioralhealth-ctx.org/resources/Suicide_Prevention.pdf
[62] Rush et. al. (July 1982) at http://psycnet.apa.org/?&fa=main.doiLanding&uid=1982-28556-001
[63] Goldmsith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=98

And still other research has found that suicide ideation and suicide attempts in depressed individuals are highly correlated with affective factors such as sadness and crying and with cognitive factors such as self-hate, and not as strongly correlated with somatic symptoms of depression.[64]

All of this information strongly supports evaluating for hopelessness and degree of felt distress or psychic pain as a significant part of any suicide risk assessment.

- ***Mood disorders, psychosis, borderline personality disorders and substance abuse** are key risk factors.* According to the IOM report, over 90 percent of suicides in the United States are associated with mental illness and/or alcohol and substance abuse. Substance abuse and mood disorders frequently co-occur, with 51% of suicide attempters having both conditions.[65]

  Diagnoses most frequently associated with suicide
  - Mood disorders
  - Alcoholism and substance abuse
  - Schizophrenia

  The New York Task Force on Life and the Law reports that[66]

  - *Depression, accompanied by symptoms of hopelessness and helplessness*, is the most prevalent condition among individuals who commit suicide. Fawcett, however, states that this is true for long-term risk of suicide, but that *depression combined with severe anxiety and/or agitation* is the most prevalent condition among those who commit suicide in less than 12 months post assessment and/or treatment.
    - Depression is present in 50 percent of all suicides. In a national population survey conducted in Canada, almost 2/3 of those reporting a suicidal act in the previous 12 months reported a major depressive episode in their lifetime, with more than half meeting criteria for one or more episodes in the same 12-month period as the suicidal act. [67]
    - Fifteen to twenty percent of people with clinical or major depression commit suicide[68]
    - Older persons with depression are more likely to commit suicide than younger persons who are depressed.
  - On average in the United States, 1 suicide occurs for every 30 attempts. In bipolar patients, it's 1 suicide for every 3 attempts: Their attempts are 10 times more lethal.[69] People with bipolar disorder are 15 times more likely to commit suicide.[70]
  - Alcoholism carries a four percent to six percent risk of suicide Alcohol and substance abuse problems contribute to suicidal behavior in several ways. In addition to increasing the risk of suicide directly through lowered inhibitions (with the risk of greater impulsive action), people who abuse substances or alcohol also tend to have other risk factors such as depression and social and financial problems. Substance

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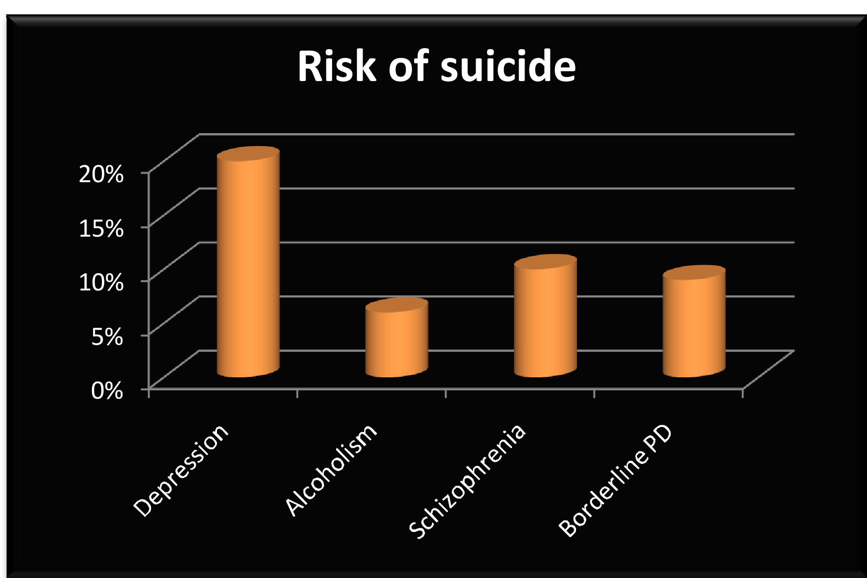
[64] Goldmsith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=98
[65] Goldmsith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=5
[66] New York State Task Force on Life & the Law (Oct 2001) at http://www.health.state.ny.us/nysdoh/consumer/patient/chap1.htm
[67] Blackmore et. al. (2008) at http://bjp.rcpsych.org/cgi/reprint/192/4/279
[68] Bender (June 6, 2003) at http://pn.psychiatryonline.org/content/38/11/28.1.full
[69] Gould (Jan 22, 2008) at http://www.medscape.com/viewarticle/567282
[70] Bender (June 6, 2003) at http://pn.psychiatryonline.org/content/38/11/28.1.full

use and abuse are also common among persons prone to be impulsive, and among persons who engage in many types of high risk behaviors that result in self-harm.[71]

- Ten percent of people with schizophrenia commit suicide. According to the WHO, the risk is particularly strong in young male patients and those in the early stages of the disease, especially those who performed well, mentally and socially, before the onset of the illness. Risk has been found to be heightened soon after inpatient discharge. [72] Other individuals with schizophrenia most at risk are those with chronic relapses and those with a fear of "mental disintegration".[73]
- Three to nine percent of those diagnosed with Borderline Personality Disorder (BPD) commit suicide. Recurrent suicide attempts, self-injury, and impulsive aggression are often associated with BPD.[74]
    - The rate of suicide in clinical samples of BPD is around 5 to 10%. This rate is about 400 times that of the general population. Authors estimated that 40 to 85% of borderline patients carry out suicide attempts that are usually multiple (average=3). Borderline patients with a history of self-mutilation behavior have about twice the rate of suicide than those without. Thus, self-mutilation may be a risk factor for suicide in individuals with borderline personality disorder. [75] Intent as it relates to self-mutilating behaviors is important to assess.



- Fawcett, in a review of the epidemiology of suicide, noted that most of those who complete suicide had symptoms of a psychiatric disorder while more of the suicide attempters have personality disorders such as borderline personality disorder.[76]

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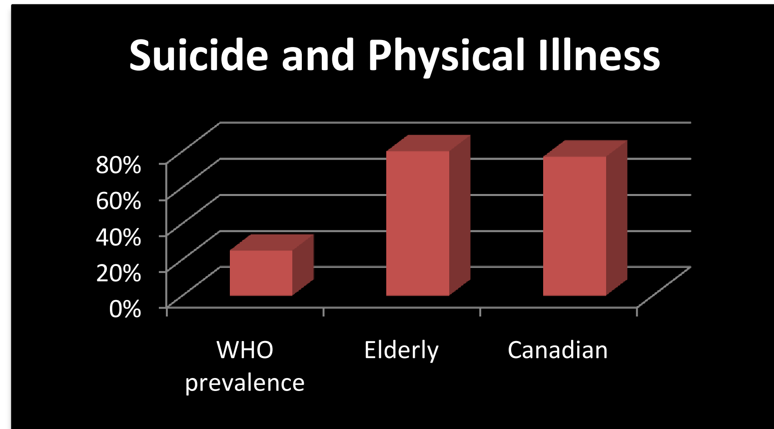
[71] SAMHSA (2001) at http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/appendixc.asp
[72] SAMHSA (2001) at http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/appendixc.asp
[73] Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf p. 11
[74] New York State Task Force on Life & the Law (Oct 2001) at http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/appendixc.asp
[75] Oumaya (Oct 2008) at http://www.ncbi.nlm.nih.gov/pubmed/19068333?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_SingleItemSupl.Pubmed_Discovery_RA&linkpos=5&log$=relatedreviews&logdbfrom=pubmed
[76] Clark and Fawcett (1992) at http://books.google.com/books?id=mTuoxob0ByQC&pg=PA55&lpg=PA55&dq=Jan+Fawcett,+M.D.+suicide&source=bl&ots=4ApD7XWI5g&sig=Dy8DneZN(1992) w6Ib5LLmhPXVM_VQGUs&hl=en&ei=sS7bS_aZKML58Aa8kr2pAg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CBsQ6AEwAw#v=onepage&q=Jan%20Fawcett%2C%20M.D.%20suicide&f=false

- ***Co-occurring, severe anxiety and/or*** *agitation are risk factors for imminent or acute suicide risk*. Please refer to the section on assessing for imminent or acute suicide risk for more information.

- ***Physical illness and chronic pain combined with depression and hopelessness*** *is a risk factor.* It likely that the existence of depression (and perhaps hopelessness as one of its symptoms) is a key variable in the associations found between a number of physical health conditions and suicide.
  - For example, researchers find a *close association between suicide and severe physical illness*, especially those that are debilitating and include ongoing pain.
  - The WHO states that the prevalence of physical illness in those who commit suicide is estimated to be at least 25%, though it may be as high as 80% among elderly people who commit suicide. Interestingly, in the Canadian general population survey, 77% of those reporting a suicidal act in the previous 12 months reported chronic physical health problems [77] – and these were not all elderly.



  - In more than 40% of cases, physical illness is considered an important contributory factor to suicidal behavior and ideation, especially if there are also mood disorders or depressive symptoms. In fact, several investigations have shown that *people suffering from a physical illness rarely commit suicide in the absence of any psychiatric symptoms*.[78]

Interestingly, the *WHO tends to posit hopelessness and helplessness as an underlying explanation,* even though researchers may not have tested specifically for those characteristics, when they make statements such as "It is understandable that the prospect of unbearable suffering and humiliating dependency might lead people to consider ending their life." [79]

Looking at specific pain conditions, researchers have found that

- Patients suffering from chronic pain syndromes including migraine, chronic abdominal pain, and orthopedic pain syndromes report increased rates of suicidal ideation, suicide attempts, and suicide completion. Various studies find higher rates of suicide among patients with chronic pain when compared to the general population. For example, in a study of patients who attempted suicide, 52% suffered from a somatic disease and 21% were taking analgesics daily for pain.[80]
- Depression was the most important variable associated with these increased rates of suicide among people with debilitating physical illness and/or chronic pain. Some

[77] Blackmore et. al. (2008) at http://bjp.rcpsych.org/cgi/reprint/192/4/279
[78] Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf
[79] Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf
[80] Clark (n.d.) at http://www.hopkins-arthritis.org/patient-corner/disease-management/depression.html

important variables to keep in mind when evaluating a person's response to pain include

- **If pain resulted in a loss of independence or mobility that decreased an individual's participation in social activities, the risk of depression was significantly increased**.[81] So you might want to evaluate the consequences of a pain condition on a person's social and other life functioning.
- In addition**,** research suggests that the longer the pain duration, the greater the likelihood for the presence of current suicidal ideation. Further, more severe pain is associated with more severe depression.[82]
- An interesting finding that further supports the importance of looking at physical health and pain and their contributions to hopelessness is the following: Researchers found, in one study, that suicide attempters complaining of pain were depressed more often than suicide attempters without pain.[83]

- ***Impulsiveness/Impulsivity*** *is another very important risk factor*. Impulsivity has been variously defined as human behavior without adequate thought, the tendency to act with less forethought than do most individuals of equal ability and knowledge, or a predisposition toward rapid, unplanned reactions to internal or external stimuli without regard to the negative consequences of these reactions.[84]

  The Harvard School of Public Health's *Means Matter Campaign* reports the following information on suicide and impulsivity.

  - In one study of 153 survivors of near-lethal suicide attempts, ages 13-34, time between decision to complete suicide and actual attempt was minutes to hours long. One in four deliberated for less than 5 minutes, while 9 in 10 thought about it for less than a day. Seventy-one percent made their suicide attempt between less than five minutes and one hour after deciding to kill themselves.
  - Several studies have found a significant number of suicide attempts are made impulsively. Depending on the study, rates range from 33% to 80%.
  - In many of the studies reported, impulsive attempters tended to be younger people who have experienced an interpersonal conflict with a partner or family member – perhaps 24 hours prior to the attempt and, in some instances, at almost the same moment as the suicide attempt (as in shooting themselves in the middle of an argument). Major depression or psychosis was not consistently associated with the suicide attempt.

  In a previously mentioned study, a psychiatrist from Florida Hospital in Orlando followed 100 serious suicide attempts admitted between 1/1/1992 – 12/31/1993. He found that 84% had no specific suicidal plan prior to their impulsive suicide attempt. The attempt was the first for 67% of those studied. Sixty-nine percent did not have any suicidal ruminations prior to their attempt. The majority had a past history of impulsive behavior, reported emerging partial or global insomnia and a recent significant loss or conflict in an important relationship.[85]

[81] Clark (n.d.) at http://www.hopkins-arthritis.org/patient-corner/disease-management/depression.html
[82] Fishbain (1996) at http://ajph.aphapublications.org/cgi/reprint/86/9/1320.pdf
[83] Fishbain (1996) at http://ajph.aphapublications.org/cgi/reprint/86/9/1320.pdf
[84] International Society for Research on Impulsivity (n.d.a.) at http://impulsivity.org/
[85] Hall (1999) at http://www.drrichardhall.com/Articles/suicide.pdf

A study of hospitalized adolescents engaging in non-suicidal self-injury with and without suicide attempts found that those who made suicide attempts reported worse depression, hopelessness and impulsivity than those who had not made suicide attempts. Researchers suggest evaluating impulsivity levels as well as severity of clinical symptoms when evaluating for suicide risk.[86]

Other studies have found that suicide attempters with major depressive disorder have higher levels of aggression and impulsivity than non-attempters,[87] certainly suggesting that impulsivity should be assessed.

Note that most of the above reported studies are on suicide attempters. Fawcett[88] suggests that suicide attempters differ qualitatively from suicide completers. He states that attempters are more likely to have personality disorders, especially Cluster B disorders, which include borderline, narcissistic, histrionic and antisocial personality disorders, while completers are more likely to have Axis I mental health disorders. Impulsivity is a characteristic of these Cluster B personality disorders.

It is important to note also that substance use could lead to disinhibition and impulsive suicidal behavior. In fact, alcohol abuse was one of the prominent risk factors found in Fawcett's group of suicide completers compared to attempters.[89] Thus, there may actually be different sources of impulsive behavior that contribute to suicide attempts and/or completes.

In assessing for impulsivity, please note that people may not see themselves as impulsive, so simply asking people if they are impulsive from a list of potential risk factors may not identify that they have the characteristic. It is important to ask other questions. For example, clinicians could assess impulsivity by asking questions about violent rages, assaultive behavior, arrests, destruction of property, spending sprees, speeding tickets, sexual indiscretions and other such indicators of poor

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[86] Dougherty et. al. (Aug 30, 2009) at http://psycnet.apa.org/index.cfm?fa=search.displayRecord&id=46994518-CC2E-8F9F-E371-87D0911C2503&resultID=19&page=1&dbTab=all

[87] Mann et. al. (1999) – Cited in Simon (2004) at http://books.google.com/books?id=M9ZsoxUJyW8C&pg=RA1-PA41&lpg=RA1-PA41&dq=Long-term+and+short-term+risk+factors+in+suicide&source=bl&ots=7fI2XhX4iq&sig=feAiuu6leDcGYIQRGjiNHD9PqVM&hl=en&ei=XqSwS76_E8GBlAerzqzJCQ&sa=X&oi=book_result&ct=result&resnum=5&ved=0CCEQ6AEwBA#v=onepage&q=Long-term%20and%20short-term%20risk%20factors%20in%20suicide&f=false

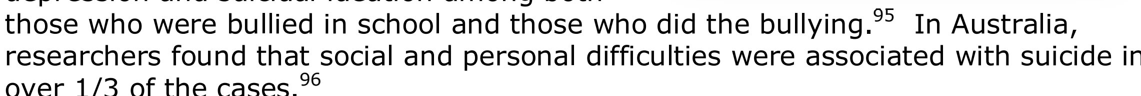
[88] Clarke and Fawcett (1992) at http://books.google.com/books?id=mTuoxob0ByQC&pg=PA55&lpg=PA55&dq=Jan+Fawcett,+M.D.+suicide&source=bl&ots=4ApD7XWI5g&sig=Dy8DneZNw6Ib5LLmhPXVM_VQGUs&hl=en&ei=sS7bS_aZKML58Aa8kr2pAg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CBsQ6AEwAw#v=onepage&q=Jan%20Fawcett%2C%20M.D.%20suicide&f=false

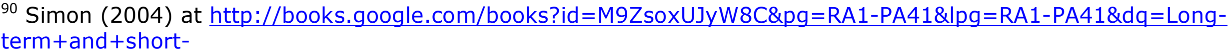
[89] Clarke and Fawcett (1992) at http://books.google.com/books?id=mTuoxob0ByQC&pg=PA55&lpg=PA55&dq=Jan+Fawcett,+M.D.+suicide&source=bl&ots=4ApD7XWI5g&sig=Dy8DneZNw6Ib5LLmhPXVM_VQGUs&hl=en&ei=sS7bS_aZKML58Aa8kr2pAg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CBsQ6AEwAw#v=onepage&q=Jan%20Fawcett%2C%20M.D.%20suicide&f=false

impulse control.[90] It is also important to find out, if possible, behavior when drinking or using drugs in assessing impulsivity.

If you wish to use a standardized and researched measure, impulsivity as a dimension can be measured by the Barrett Impulsiveness Scale, Version 11 (BIS-11).[91] The Barratt Impulsiveness Scale (BIS-11) is a 30-item self-report instrument designed to assess impulsiveness. The BIS is arguably the most commonly administered self-report measure for the assessment of impulsiveness in both research and clinical settings.[92] Sample items include "I buy things on impulse," "I spend or charge more than I earn," "I 'squirm' at plays or lectures," or "I am a steady thinker." A copy of the complete BIS can be downloaded from the International Society for Research on Impulsivity.[93]

- ***Life events*** *may put people at increased risk for suicide.* Personal loss, interpersonal conflict, a broken or disturbed relationship and legal or work/school-related problems may be precipitating factors for suicide. Here are some findings from the IOM report: [94]





  - Those who have *lost a loved one, who are divorced, separated or widowed, are more likely to die by suicide* – especially if the person lost was a partner or exceptionally close.
  - *Conflicts in interpersonal relationships* in the home, school or work *are correlated with an increased likelihood of suicide*. A study of 16,000 adolescents in Finland found an increased incidence of depression and suicidal ideation among both those who were bullied in school and those who did the bullying.[95] In Australia, researchers found that social and personal difficulties were associated with suicide in over 1/3 of the cases.[96]
  - *Childhood trauma is a strong risk factor for suicidal behavior* in adolescents *and* adults. Independent of psychopathology and other known risk

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[90] Simon (2004) at http://books.google.com/books?id=M9ZsoxUJyW8C&pg=RA1-PA41&lpg=RA1-PA41&dq=Long-term+and+short-term+risk+factors+in+suicide&source=bl&ots=7fI2XhX4iq&sig=feAiuu6leDcGYIQRGjiNHD9PqVM&hl=en&ei=XqSwS76_E8GBlAerzqzJCQ&sa=X&oi=book_result&ct=result&resnum=5&ved=0CCEQ6AEwBA#v=onepage&q=Long-term%20and%20short-term%20risk%20factors%20in%20suicide&f=false

[91] Hollander et. al. (2008) at http://psycnet.apa.org/index.cfm?fa=search.displayRecord&id=46B2E3D9-E000-1141-37E0-5026FBA5F2AC&resultID=13&page=1&dbTab=all

[92] Stanford, et. al. (October 2009) at http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6V9F-4W68DR9-4&_user=8894358&_coverDate=10/31/2009&_rdoc=1&_fmt=high&_orig=search&_sort=d&_docanchor=&view=c&_searchStrId=1315385841&_rerunOrigin=google&_acct=C000109642&_version=1&_urlVersion=0&_userid=8894358&md5=b263457935bdf215e9bdae9c8cd33f2c

[93] International Society for Research on Impulsivity (n.d.b.) at http://impulsivity.org/BIS-11/bis-11%20file%20storage/BIS-11%20English%20Version.doc/view

[94] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=1; Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf

[95] Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf

[96] Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf

factors, child sexual abuse has been reported in 9–20 percent of suicide attempts in adults.[97]

- *Same-sex orientation is a risk factor, especially for adolescents and young adults.* Estimates of the prevalence of suicide among gay and lesbian youth range from 2.5% to 30%.[98], [99]
- *Social isolation is a risk factor*. In a comparative study of social behavior between groups of people who attempted suicide, who completed suicide and who died of natural causes, one researcher found that those who completed suicide had fewer to no friends, participated less in social organizations, and had shown a progressive decline in interpersonal relationships leading to a state of total social isolation.[100]
- Note that interpersonal difficulties, conflicts with parents and peers, and perceived or actual social isolation have been identified as existing contributors to suicide attempts in adolescents as well as adults.[101]

- ***Social and environmental factors*** *may contribute to suicide risk.* These factors include access to means of suicide, urban or rural living environment, employment, immigration status, affiliation to a religion and economic conditions.
  - Social changes that break down traditional values and practices result in increased suicide. Thus, ***immigrants to the U.S.*** are at high risk for suicide. Suicide rates also vary by country or ethnicity based on that country or ethnic group's cultural acceptance of suicide. We will look at this later on when looking at more static risk factors. In general, suicide rates tend to reflect that of the country of origin, with convergence toward that of the host country over time.[102]
  - For those who work with ***detained immigrants***, it is important to know that suicide is the most common cause of death among detained immigrants in the U.S. It accounts for 15 of 83 deaths since 2003.[103] .
  - For those working in the ***jail or prison*** system, it is important to know that suicide rates for jail inmates are 9 times greater than that of the general population and 15 times higher for men alone. The IOM states that *most suicide victims in jails of all types and sizes (e.g., rural and urban county jails, city jails, and police department lock-ups) are young white males arrested for nonviolent offenses and intoxicated*

[97] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=1
[98] Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf
[99] SAMHSA (2001) at http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/appendixc.asp
[100] WHO. (2004) at http://whqlibdoc.who.int/publications/2004/9241592079.pdf
[101] Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf
[102] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=49
[103] Priest and Goldstein (May 13, 2008) at http://www.washingtonpost.com/wp-srv/nation/specials/immigration/cwc_d3p1.html

upon arrest. Suicide was usually by hanging within 24 hours of incarceration.[104] Suicide has been identified as one of the leading causes of death in the jails.[105]

- Several ***professions*** (e.g. police, doctors, dentists) have been noted as having suicide rates that are higher than the population averages. Models of occupation's influence on suicidality propose stressors and access to lethal means as the causal variables.[106]
  - *Stressors include level of prestige and dependency on a client base*. There may be an association between occupations with greater prestige or people with higher education levels who have been admitted for serious mental illness and suicide. The distress is hypothesized to be due to stigma and/or perhaps greater illness severity prior to treatment due to delaying treatment[107]
  - *Holding infrequent roles, such as female chemists and soldiers, or rare roles, appears to increase suicide rates, as well.*
  - Studies regarding the effect of availability of lethal means such as firearms or lethal drugs on suicide rates for certain occupations have found inconsistent results, though the evidence is stronger for medical professions.

- The Harvard School of Public Health's Means Matter Campaign provides some interesting information about firearms (***access to lethal means***) as a risk factor for suicide.[108]

  - Within the U.S., access to firearms is associated with increased suicide risk.
  - Various studies have found that adolescents who complete suicides are more likely to have guns at home than those who are attempters or those who were non-attempters in a psychiatric inpatient setting.
  - Population based research finds that states with high gun ownership levels have higher suicide rates than states with low gun ownership levels. Interestingly, the higher suicide rates are related to higher firearm suicides; the non-firearm suicide rate is about equal across all states. This holds true even when rates of other risk factors are controlled across the different states.

[104] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=51
[105] SAMHSA (2001) at http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/appendixc.asp
[106] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=52
[107] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=53
[108] Harvard School of Public Health (2010) at http://www.hsph.harvard.edu/means-matter/means-matter/risk/index.html

- Suicide rates are higher in rural areas than in urban areas. However, rates of depression do not differ between rural and urban areas (in many studies) and rates of depression, substance use problems and suicidal ideation do not differ between households with and without guns. Thus, it may be the higher rates of gun ownership in rural areas that contribute to the higher suicide rates in rural areas – not differences in other risk factors.

Decreasing access to lethal means of killing oneself decreases suicide rates using those means – and it appears that people (at least looked at as a population sample) do not tend to substitute means.

- An interesting example of an effort to prevent suicide using a "non-firearm lethal means" occurred in Hong Kong. There was an increase in "charcoal burning suicide" (charcoal burning causes carbon monoxide poisoning and hypoxia) in Hong Kong, parts of China and Japan. Charcoal was removed from the major retail outlets in one region in Hong Kong and not removed in another. The rates of charcoal burning suicide decreased in the region limiting access to charcoal but did not in the control region. Interestingly, suicide rates by other means did not change.[109] Using this information, the Hong Kong government then replaced traditional charcoal-burning barbecue grills with electric grills.[110]
- In the U.S., using blister packs for pills, enacting stricter gun control laws[111] and requiring catalytic converters on automobiles which reduce carbon monoxide exhaust emissions have reduced suicide by related means. In Great Britain, the substitution of natural gas for coal gas reduced carbon monoxide-related suicide.[112]
- Some alcohol policies may be effective in reducing suicide deaths. For example, an assessment of minimum legal drinking age (MLDA) found that between 1970 and 1990, the suicide rate of 18- to 20-year-old youths living in States with an 18-year MLDA was 8 percent higher than the suicide rate among 18- to 20-year-old youths in States with a 21-year MLDA.[113]

The United States has the highest legal drinking age in the world, as established by the National Minimum Drinking Act of 1984. States are required to enforce and/or legislate a minimum legal drinking age of 21 or risk losing federal funds for highways.*

Risk Factors: Static and Unchangeable - Moving on to the static or actuarial or unchangeable risk factors such as age, gender, economic status, ethnicity, family history, patient's past history, and marital status.[114]

*Devon (Nov 20, 2006) at http://www.associatedcontent.com/article/86691/what_is_the_legal_drinking_age_in_the.html?cat=17

[109] Blackmore et. al. (2008) at http://bjp.rcpsych.org/cgi/content/abstract/196/3/241

[110] Viswiki.com (2009) at http://www.viswiki.com/en/Charcoal-burning_suicide

[111] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=6

[112] Wikipedia (2010) at http://en.wikipedia.org/wiki/Carbon_monoxide_poisoning

[113] SAMHSA (2001) at http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/appendixc.asp

- ***Previous suicide attempts** are a risk factor. The risk of another attempt is higher in the first year – and especially in the first 6 months – after an attempt*. Almost 1% of individuals who attempt suicide die within 1 year, and approximately 10% eventually complete suicide.[115] Anywhere from 18 to 40 percent of patients who commit suicide have made previous suicide attempts.[116, 117] This also means that anywhere from 60-82% of those who die by suicide never made a prior suicide attempt in their lifetime.

  As already noted, Fawcett suggests that previous suicide attempts are more predictive of future suicide attempts than of suicide completion. In fact, they propose that those who make nonfatal suicide attempts and those who die by suicide come from two qualitatively different groups – that they are more different than alike. Any overlap is small. They state that psychological autopsy studies of community-based populations (not psychiatric patients, but instead suicides within a specific geographic area) show that only 18-38% of those who die by suicide ever attempted suicide. Long-term followup studies of those who ever attempted suicide (nonfatal) show that only 7-10% eventually die by suicide. This is about 5-6 times greater than the general population. Thus, a history of nonfatal attempts does put one at elevated risk for completion of suicide, but 90-93% of all attempters never go on to die by suicide.[118]

  Previous suicide attempts are more predictive of future *suicide attempts* than of *suicide completion.*

  90-93% of all attempters never go on to die by suicide

  Lethality of prior attempts is an added factor in evaluating risk.[119] To assess lethality of prior attempts, providers will have to ask, to "drill down" – looking into the characteristics of previous suicide attempts.

  People who believe and act on their belief that suicide is a solution have a high likelihood of choosing that solution again when stressors become seemingly insurmountable. As

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[114] Simon (2004) at http://books.google.com/books?id=M9ZsoxUJyW8C&pg=RA1-PA41&lpg=RA1-PA41&dq=Long-term+and+short-term+risk+factors+in+suicide&source=bl&ots=7fI2XhX4iq&sig=feAiuu6leDcGYIQRGjiNHD9PqVM&hl=en&ei=XqSwS76_E8GBlAerzqzJCQ&sa=X&oi=book_result&ct=result&resnum=5&ved=0CCEQ6AEwBA#v=onepage&q=Long-term%20and%20short-term%20risk%20factors%20in%20suicide&f=false

[115] Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf

[116] New York state Task Force on Life & the Law (Oct 2001) at http://www.health.state.ny.us/nysdoh/consumer/patient/chap1.htm

[117] Clark and Fawcett (1992) at http://books.google.com/books?id=mTuoxob0ByQC&pg=PA55&lpg=PA55&dq=Jan+Fawcett,+M.D.+suicide&source=bl&ots=4ApD7XWI5g&sig=Dy8DneZNw6Ib5LLmhPXVM_VQGUs&hl=en&ei=sS7bS_aZKML58Aa8kr2pAg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CBsQ6AEwAw#v=onepage&q=Jan%20Fawcett%2C%20M.D.%20suicide&f=false

[118] Clark and Fawcett (1992) at http://books.google.com/books?id=mTuoxob0ByQC&pg=PA55&lpg=PA55&dq=Jan+Fawcett,+M.D.+suicide&source=bl&ots=4ApD7XWI5g&sig=Dy8DneZNw6Ib5LLmhPXVM_VQGUs&hl=en&ei=sS7bS_aZKML58Aa8kr2pAg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CBsQ6AEwAw#v=onepage&q=Jan%20Fawcett%2C%20M.D.%20suicide&f=false

[119] Oquendo et. al. (Jan 2007) at http://www.ncbi.nlm.nih.gov/pubmed/17202555?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_SingleItemSupl.Pubmed_Discovery_RA&linkpos=3&log$=relatedarticles&logdbfrom=pubmed

assessors, we need to find out what those stressors are and what the individual's response patterns are, so that we can teach different ways of responding to those stressors. As stated several times in other sections of this article, this means we may need to ask additional questions, perhaps going beyond simply identifying the existence of potential risk factors to understanding how they relate to each other. For example, one researcher posits that hopelessness in combination with previous suicide attempts are the most powerful clinical predictors of completed suicide.[120] This suggests that hopelessness is a common response of these individuals to stressors – and improving actual self-efficacy could go a long way towards preventing future suicidal behavior.

Stated again, while the presence of a previous suicide attempt increases the risk that a person will commit suicide; the majority of those who commit suicide have not previously attempted it.[121] Thus, relying on a history of previous suicide attempts as a main indicator of risk is not sufficient to identify the majority of those who will commit suicide.

- ***Gender** is a risk factor:* In the US, males have suicide rates significantly higher than females with rates at 17.7 per 100,000 compared to 4.5 per 100,000.[122] The IOM notes various factors accounting for these differences:[123]
    - Men with a mood disorder, e.g., depression, generally have a *higher rate of co-occurring alcohol and substance abuse* than women.
    - Older men who are depressed may be less likely to recognize it, report it and/or receive treatment for it than women who are depressed.
    - Men may *see a need for help as a weakness and thus avoid seeking help* – more so than women for whom interdependence is not a negative condition.
    - Men tend to use more lethal methods of self-harm, e.g., guns, while women tend to use "softer" methods such as medications.

- ***Age** is a risk factor:* In 2005, white males aged 75+ were the most likely to kill themselves, with rates at 37.8 per 100,000. Females in that age group had suicide rates of 4.0 per 100,000. If females are going to kill themselves, they are most likely to do so

[120] Simon (2004) at http://books.google.com/books?id=M9ZsoxUJyW8C&pg=RA1-PA41&lpg=RA1-PA41&dq=Long-term+and+short-term+risk+factors+in+suicide&source=bl&ots=7fI2XhX4iq&sig=feAiuu6leDcGYIQRGjiNHD9PqVM&hl=en&ei=XqSwS76_E8GBlAerzqzJCQ&sa=X&oi=book_result&ct=result&resnum=5&ved=0CCEQ6AEwBA#v=onepage&q=Long-term%20and%20short-term%20risk%20factors%20in%20suicide&f=false
[121] Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf
[122] WHO (2009b) at http://www.who.int/mental_health/media/unitstates.pdf
[123] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=40

between the ages of 45-54 with a rate of 8.0 per 100,000.[124] For white males over age 85, the rate is 65 per 100,000.[125]

Suicide is the 3rd most frequent cause of death in young people worldwide and in the U.S.[126] Between 1970 and 1990, the rates for youth aged 15 through 19 nearly doubled; the rate tripled since the mid 1950s.[127]

Older people

IOM-identified factors to consider here include:[128]

- *Depression appears to be the most common mental illness in older suicide victims*, while alcoholism is the most common diagnosis in younger victims.
- *Spousal loss and related bereavement – as well as possible increased social isolation* - appears to increase suicidality in older men more than in older women. In the U.S., the highest suicide rate is among bereaved elderly white men: 84/100,000.
- Other key losses may be a factor triggering depression and related hopelessness. These might include: [129]
    - Social role changes, e.g., retirement in males or perhaps widowhood in females
    - Economic losses, e.g., due to retirement or medical illness
    - Losses associated with moving to a nursing home, e.g., loss of car, home, dignity, freedom, autonomy
- Older individuals make fewer suicide attempts per completed suicide. The highest suicide attempt to completion rate is in younger women (200:1), compared with 4:1 in the elderly. *Suicide attempts in the elderly are more likely to lead to completed suicide than in any other age group.*

Suicide attempts in the elderly are more likely to lead to completed suicide than in any other age group.

- Older people commit suicide with high intent, after longer planning and frequently using highly lethal methods. There is a close relationship between suicide intent and attempt lethality in older men, meaning they act more decisively on their intent.[130] It may be worth it to measure intent in older men.

Data from the Epidemiologic Catchment Area study, a landmark survey of the incidence and prevalence of psychopathologic conditions in the United States, found that persons more than 65 years of age were less likely ever to have made a suicide attempt than younger adults. Yet rates of completed suicide are higher in late life than at any other point in the life course. Many factors may explain the increased lethality of self-destructive behaviors in older people.

- They are frailer, subject to acute and chronic diseases, and have fewer physical reserves.

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[124] WHO (2009b) at http://www.who.int/mental_health/media/unitstates.pdf
[125] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=33
[126] Jacobs (post 2007) at http://www.naphs.org/Teleconference/documents/ResourceGuide_JCAHOSafetyGoals2007_final.pdf
[127] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=40
[128] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=42; Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=43
[129] Alexander (n.d.a) at https://www.netsmartuniversity.com/
[130] Dombrovski et. al. (Nov 2008) at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664649/

    - They may be less likely than younger, healthier people to survive self-damaging acts.
    - Older Americans are more isolated than younger adults and adolescents, less likely to be discovered in time to minimize the morbidity and mortality rates of a suicide attempt.
    - Finally, data suggest that older suicidal people act with greater determination to die. They give fewer warnings to others of their suicidal plans, use more violent and potentially deadly methods to commit suicide than do younger people, and apply those methods with greater planning and resolve.[131]
- Dementia, determined during hospitalization, was associated with an elevated risk of suicide for older adults. Preventive measures should focus on suicidal ideation after initial diagnosis but also acknowledge that suicides can occur well after a dementia diagnosis has been established.[132]
- Depressed patients with lower cognitive functioning and impairments in physical self-care may be especially vulnerable to impulsive suicidal behavior. [133]
- Older people are less likely to communicate their intent to die – certainly not directly. As a result, if you are working with an older population, active outreach and contact is important.[134]
    - Look for signs of depression or perhaps "geriatric delinquency", that is, someone who begins yelling, screaming, throwing things or being mean when that is not their usual manner.
    - Watch for the development of somatic complaints such as headaches, stomachaches, bowel problems that develop without evidence of a related physical problem.
    - Listen for comments about being tired of living such as "I'm tired of living," "My life doesn't have any meaning anymore," or "People would be better off it I was dead."
    - Watch for discarding personal possessions and objects of meaning. Look for increased alcohol consumption. [135]
- Interestingly, the IOM report notes that only 2-4 percent of terminally ill elderly complete suicide – but those who do are depressed.[136, 137] ***Depression [and perhaps hopelessness]***[138] ***is the biggest issue here – accounting for increased suicidality in the older individual***.[139]

Younger people
IOM-identified factors to consider here include:[140]

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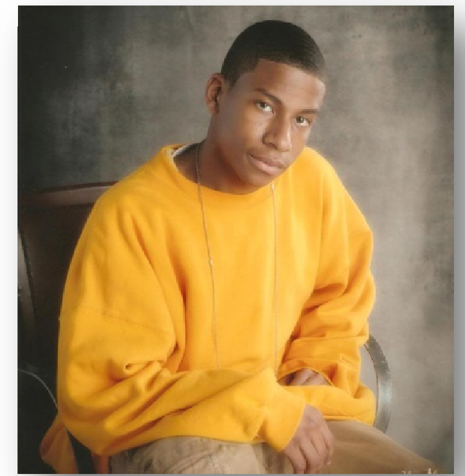
[131] Conwell (September 1, 1997) at http://www.psych.theclinics.com/article/S0193-953X(05)70336-1/abstract
[132] Erlangsen et. al. (Mar 2008) at http://www2f.biglobe.ne.jp/~boke/Erlangsen%20dementia.pdf
[133] Conner et. al. (Jan 2007) at http://www.jad-journal.com/article/S0165-0327(06)00270-9/abstract
[134] Alexander (n.d.a) at https://www.netsmartuniversity.com/
[135] Alexander (n.d.a) at https://www.netsmartuniversity.com/
[136] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=44
[137] New York State Task Force on Life & the Law (2001) at http://www.health.state.ny.us/nysdoh/consumer/patient/chap1.htm
[138] Bracketed comments are those of the author of this article
[139] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=44
[140] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=40; Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=41

- *Impulsivity is a major factor in suicidality among younger people. They show lower suicidal intent than older males and may have no preceding suicidal ideation or plans.* "Co-occurrences of mental illness, substance abuse, conduct disorder, or all three are significant risk factors for suicide, but especially in adolescent males." [141]



  Impulsivity may show up in impulsive judgments or meaning-making about events – followed by action on the resulting hopelessness. For example, a person who tends to distort what happens to them in a negative manner might say, "I was walking down the hallway today and I saw a friend of mine, Susie, who just ignored me. I really believe that she doesn't like me and if Susie doesn't like me, probably none of her friends do and if that group doesn't like you, then probably nobody likes you in the whole school." With no one challenging those interpretations, the individual could easily move onto an impulsive suicidal act, especially if she drank alcohol or consumed some other disinhibiting substance later on.[142]

  While depression is a significant factor, many adolescents attempt or think about suicide who are not depressed. They may not be hopeless, but may engage in a suicidal act as a means of communicating a need for attachment. Usually these are kids with significant skills deficits in how to interact with others socially. [143]

  This kind of impulsivity makes it difficult to rely solely on the existence of a clear plan for killing oneself as an indicator of risk. Among older individuals, intent is high and plans may be quite structured, but not necessarily so among younger individuals.

- *Increasing access to and abuse of alcohol and other substances is thought to be related to the increasing incidence of suicide among younger individuals.*

- Increased availability of firearms is another contributor. Note that, when guns are more strictly controlled in a community, suicide-by-gun declines. It is also important to evaluate whether carrying guns in adolescents or young adults is a way of fitting in with counter-culture groups or if it is related to self-destructiveness. The same is true in looking at self-mutilation behavior.[144]

- Being unemployed or out of school and experiencing diminishing opportunities for employment have been identified as possible contributors to the rise in youth suicide, both in the U.S. and in other countries.

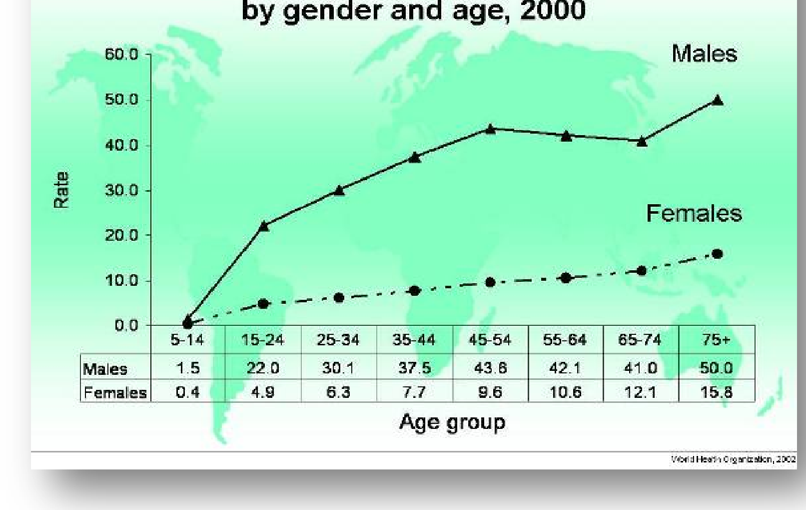
It is important to note that these determinations of suicide rates may represent underestimates. The World Health Organization (WHO) indicates that suicide and suicide attempts are underestimated. They report on one study that found

[141] Brent et al. (1999); Shaffer et al. (1996) – Cited in Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=41
[142] Alexander (n.d.b) at https://www.netsmartuniversity.com/
[143] Alexander (n.d.b) at https://www.netsmartuniversity.com/
[144] Alexander (n.d.b) at https://www.netsmartuniversity.com/

anonymous self-reports of suicide attempts made by students showed almost twice the number of suicide attempts as those indicated from interviews of psychiatrists. They hypothesize that the definitions of attempted suicide used by these students may differ from those used by professionals. In addition, only 50% of those who reported suicide attempts had sought hospital care after their attempts. The number of suicide attempters treated in hospitals may not be a real indication of the dimension of the problem in the community.[145]

While under-reporting can occur for a variety of reasons, including governmentally-defined artificial cut-off dates for data submission, not knowing the intent of the person who died (as in drug overdoses), individual sense of stigma and more, clinicians need to consider the fact that individual definitions of what constitutes a suicidal behavior or thought may vary and, thus, require skilled interviewing to elicit complete information.

- ***Gender plus age** is even more informative as a risk factor:* Males are about five times more likely to kill themselves as females at both the younger ages from 15-34 and the older ages (65-74). They are nine times more likely to kill themselves above the age of 75.[146]



	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75+
Males	1.5	22.0	30.1	37.5	43.6	42.1	41.0	50.0
Females	0.4	4.9	6.3	7.7	9.6	10.6	12.1	15.8

- ***Ethnicity** is a risk factor.* Suicide rates are also elevated in some ethnic groups.

  Indigenous people in the U.S., Canada and Australia tend to have high rates of suicide – presumably related to social and cultural upheavals.[147]

  In the U.S., according to the Indian Health Service, suicide is about 1.7 times more prevalent among Native Americans (Indians and Alaskan Natives) than it is among the general population, especially in the younger years, tapering off significantly in the older years.[148] Social and familial disruption, cultural conflict, and social disorganization are often cited as major influences on American Indian suicide rates. Suicide rates among American Indians vary with the degree of social and cultural change and acculturation pressure. The stress of these dilemmas can increase the risk of alcohol or drug abuse, depression or other psychopathology, and parasuicidal and suicidal behavior. [149]

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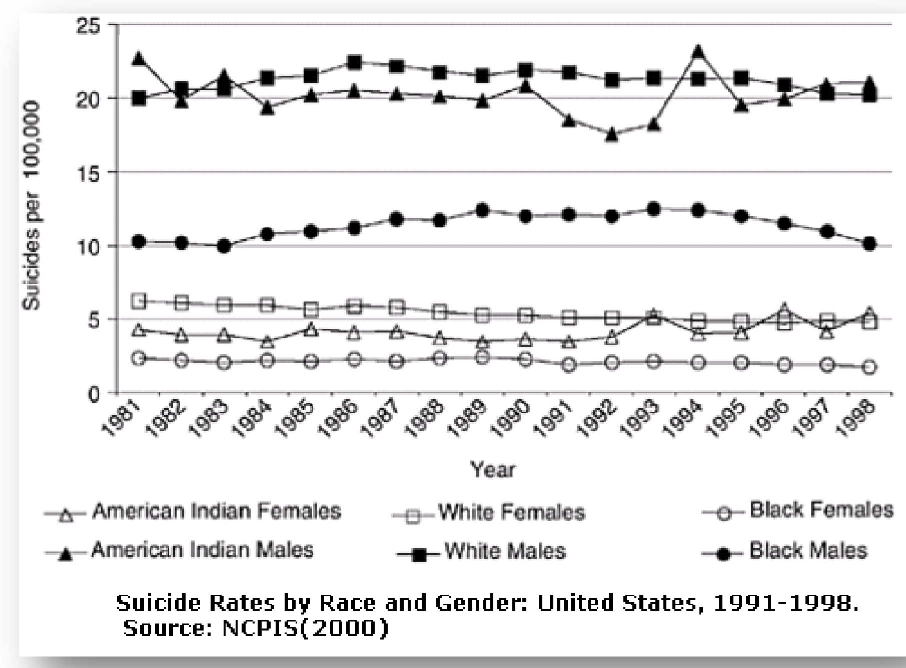
145 World Health Organization (2000) at http://www.searo.who.int/LinkFiles/List_of_Guidelines_for_Health_Emergency_prevent-suicide-school.pdf
146 WHO (2009b) at http://www.who.int/mental_health/media/unitstates.pdf
147 Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf
148 Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=49
149 Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=49

Whites or Caucasians have higher suicide rates than blacks or African-Americans in the U.S. as well as worldwide, although the gap seems to be narrowing in young males.[150, 151, 152]



Suicide Rates by Race and Gender: United States, 1991-1998. Source: NCPIS(2000)

The IOM reports that, over the last twenty years, when considering all age groups and both sexes, whites and Native Americans have the highest suicide rates, varying from approximately 11 to 14 per 100,000. Asian-Pacific Islanders and African-Americans and Hispanics[2] have rates at approximately half that — averaging 6.14 to 6.53 per 100,000 across this same time-span.[153]

Different countries have different suicide rates. For example, some of the highest rates occur in the Eastern European countries, while some of the lowest rates occur in Latin American countries and some Asian countries (e.g., Thailand).

When people immigrate, the rate of suicidal behavior in a given immigrant group appears to be similar to that in their country of origin. In Australia, for example, immigrants from Greece, Italy and Pakistan have suicide rates that are lower than those of immigrants from countries in Eastern Europe or from Ireland or Scotland, all countries with traditionally high suicide rates. This suggests a strong role for cultural factors in suicidal behavior.[154]

If you work with particular ethnic groups, it might be useful to look at the comparative suicide rates of that country as one indication of cultural acceptability of suicide.[155]

- ***Biological markers*** *may contribute to suicide risk.* According to the IOM, several lines of evidence, including adoption, twin, and family studies, suggest a link between genetic inheritance and the risk of suicide. Having a first-degree relative who

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[150] Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf
[151] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=33
[152] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=45 – to access the graph
[153] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=44
[154] Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf
[155] Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf or online for more recent tables

completed suicide increases an individual's risk of suicide 6-fold. The genetic liability may be linked to the heritability of mental illness and/or impulsive aggression.[156] Or, as some adoption studies have suggested, the genetic predisposition for suicide may exist independently of – or possibly in addition to – the major psychiatric disorders associated with suicide.[157]

Since the heritability of liability to suicidal behavior appears to be on the order of 30–50%, interactions with social and cultural influences must also be significant.[158]

Here's a summary list of risk factors

- *Biopsychosocial Risk Factors*
  - Psychiatric disorders with co-occurring severe anxiety and/or agitation
  - Hopelessness
  - Impulsivity
  - Mental disorders, particularly mood disorders, schizophrenia, and certain personality disorders
  - Alcohol and other substance use disorders
  - Major physical illnesses and/or chronic pain, especially if depression or hopelessness co-occurs
  - History of trauma or abuse
  - Previous suicide attempt
  - Gender
  - Age
  - Ethnicity
  - Family history of suicide, depression

- *Environmental Risk Factors*
  - Relational or social loss or significant familial conflict
  - Job or financial loss
  - Occupation
  - Immigrant status
  - Jail status
  - Easy access to lethal means
  - Local clusters of suicide that have a contagious influence

- *Social/cultural Risk Factors*
  - Lack of social support and sense of isolation
  - Stigma associated with help-seeking behavior
  - Barriers to accessing health care, especially mental health and substance abuse treatment
  - Certain cultural and religious beliefs (for instance, the belief that suicide is a noble resolution of a personal dilemma)
  - Exposure to, including through the media, and influence of others who have died by suicide[159]

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[156] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=1
[157] Krug et. al. (2002) at http://whqlibdoc.who.int/publications/2002/9241545615_chap7_eng.pdf
[158] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=1
[159] SAMHSA (2001) at http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/intro.asp

What are protective factors? Below are some of the protective factors that have been identified.

- *Close relationships* with significant other, family/parents, friends, neighbors, other family and/or community organizations. Also includes having a confidante
- Being a parent, especially for mothers – with *children living at home*[160]
- Parental and *family connectedness* with lower levels of discord
- Participation in *religious activities and beliefs* – It is suggested that one of the reasons for the lower suicide rates in African-American women is their high levels of spirituality (for example, fewer whites believe in an after-life) and their strong connections to community institutions such as the black church. As black males mature, it is presumed that they partake of some of this spiritual belief benefit. It is reported that only 1/5 of African-Americans believe that suicide is sometimes justified while close to half of whites do. Two-thirds of the African-American respondents to a National Mental Health Association (NMHA) survey on attitudes and beliefs about depression reported that they believed prayer and faith alone will successfully treat depression "almost all of the time" or "some of the time".[161]
- Employment status – *Employment* in general is protective. Unemployment and related economic stress is a risk factor.
- Socioeconomic status, especially *higher educational levels and higher socioeconomic status levels*
- *Success* can be a protective factor. For example, in young people, academic, sports or social success may allow for the development of some positive identity, even in those with highly stressed backgrounds or family situations. It is important to evaluate for such positive identity factors.[162]
- *Resiliency and coping skills* can reduce the risk of suicide. And coping skills can be taught.
  - This might include, in older individuals for example, a history of being able to deal with change, flexibility, able to "roll with the punches", sense of humor, sense of purpose and meaning, and/or ability to express self creatively.[163]

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[160] …(n.d.) *Understanding the New risk Factors for Suicide: An Interview with Jan Fawcett, M.D.* at http://portal.countyofventura.org/portal/page/portal/HCA/VCMC/STAFF/LITERATURE/Understanding%20the%20New%20Risk%20Factors%20for%20Suicid1.pdf
[161] Goldsmith et. al. (2002) at http://www.nap.edu/openbook.php?record_id=10398&page=46
[162] Alexander (n.d.b) at https://www.netsmartuniversity.com/
[163] Alexander (n.d.a) at https://www.netsmartuniversity.com/

- One's *ethnic group's view of suicide* or its stigma can influence its rate, preventing suicide in those societies where it is frowned upon.[164]
- *Restricted access to highly lethal means of suicide*[165] For example, limited access to guns results in fewer suicides by gun.
- *Easy access to and effective clinical care* for mental, physical, and substance use disorders,[166] certainly for those who might use these resources.

Several studies in several countries find that only a quarter of the people who commit suicidal acts and/or complete suicide were in contact with mental health services in the year prior to their attempt or death;[167] others estimate as many as 40-50% had contact with mental health professionals before their death.[168] This suggests that greater availability of or access to mental health services might be protective. However, other data suggests that, even when people have access to mental health services, they may not be as protective as we would like to think or hope they are. Consider….

- *The study already mentioned of 100 serious suicide attempts at Florida Hospital in Orlando.* Eighty-three percent of those individuals had seen a mental health specialist in the month prior to the attempt. They reportedly experienced hopelessness, insomnia, severe, relentless anxiety often with intermittent panic attacks and a depressed mood. They also had a past history of impulsive behavior and often expressed feelings of helplessness and anhedonia (lack of experiencing pleasure). The majority of these patients had their symptoms develop within three months prior to their suicide attempt, and most had experienced a recent significant loss. [169]
- *The data on inpatient psychiatric treatment mentioned earlier.* A quarter of individuals discharged from such treatment killed themselves within the first month post-discharge. Many kill themselves while in treatment.

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[164] SAMHSA (2001) at http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/appendixc.asp
[165] SAMHSA (2001) at http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/intro.asp
[166] SAMHSA (2001) at http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/intro.asp
[167] Matthews and Paxton (2001) at http://spinner.cofc.edu/Betterthingstodo/Peer_Educator/suicide.pdf?referrer=webcluster&
[168] Clark and Fawcett (1992) at http://books.google.com/books?id=mTuoxob0ByQC&pg=PA55&lpg=PA55&dq=Jan+Fawcett,+M.D.+suicide&source=bl&ots=4ApD7XWI5g&sig=Dy8DneZNw6Ib5LLmhPXVM_VQGUs&hl=en&ei=sS7bS_aZKML58Aa8kr2pAg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CBsQ6AEwAw#v=onepage&q=Jan%20Fawcett%2C%20M.D.%20suicide&f=false
[169] Hall (1999) at http://www.drrichardhall.com/Articles/suicide.pdf

- The suicide of a care recipient while in a staffed, round-the-clock care setting has been the #1 most reported type of sentinel event since the inception of The Joint Commission's Sentinel Event Policy in 1996.[170]
- Other studies find that only a quarter or fewer of those who see mental health professionals express suicidal ideation or intent.[171]

All of this suggests that we, as treatment providers, may need to re-think our current processes for assessing suicide risk and for responding to identified risk factors.

Once in treatment, protection is far from guaranteed. Providers may need to become much more informed on what to look for in terms of risk as well as in terms of available protective factors. It is likely that those are seldom evaluated as fully as they should be - at the time of admission, during treatment and at the time of discharge.

Perhaps we need to conduct our suicide risk assessments, not just to identify who needs to be sent off to more intensive levels of care or put on suicide watch, but to also identify significant risk factors that we should treat in a focused manner immediately. Such risk factors, to list them once again, would include severe anxiety, hopelessness, impulsivity, responses to significant losses and interpersonal conflicts as well as the specific diagnostic conditions associated with suicide risk. We should evaluate available protective factors and, perhaps, teach skills for using and/or building on them.

Who is at highest risk for imminent suicide? The likelihood of someone's attempting or committing suicide is difficult to determine. It is even more difficult to determine who might act on any suicide impulse in the very near future (or imminently). *We have no psychological tests, clinical techniques or biological markers that are sufficiently sensitive[172] and specific[173] to accurately assess the acute risk of suicide in an individual*. We may be able to identify people who possess risk factors and who may be at future risk and perhaps higher risk than others. What clinicians need most is the ability to predict imminent or acute risk.

Most of the research on suicide has not differentiated short-term from long-term suicide completers, but, instead, has tended to lump them all together. Jan Fawcett, M.D.,[174] mentioned previously, and his colleagues conducted a four-year prospective study in which they compared suicide attempters with completers and recent completers (<12 months from initial intake to treatment) with longer-term completers (>12 months to 10 years post intake).

[170] Matthews and Paxton (2001) at http://spinner.cofc.edu/Betterthingstodo/Peer_Educator/suicide.pdf?referrer=webcluster&
[171] Bender (June 6, 2003) at http://pn.psychiatryonline.org/content/38/11/28.1.full
[172] When referring to a medical test, sensitivity refers to the percentage of people who test positive for a specific disease among a group of people who have the disease. No test has 100% sensitivity because some people who have the disease will test negative for it (false negatives). See http://www.cancer.gov/dictionary/?CdrID=322884
[173] When referring to a medical test, specificity refers to the percentage of people who test negative for a specific disease among a group of people who do not have the disease. No test is 100% specific because some people who do not have the disease will test positive for it (false positive). See http://www.cancer.gov/dictionary/?CdrID=322884
[174] Jan Fawcett, M.D. is a prominent researcher in the field of suicidality, has received lifetime research awards by the American Association of Suicidology and the American Foundation for Suicide Prevention. In his four-year study, the NIMH-funded Collaborative Study on the Psychobiology of Depression, he and his colleagues collected prospective data on 954 patients with mood disorders, 85 percent of whom were hospitalized. By the 10th year of the study, 34 patients in the sample committed suicide. Almost a third of the suicides occurred in the first year.

His results suggest that there are some key differences in risk factors between those who commit suicide in the short-term (<12 months post intake) versus the long-term (>12 months to 10 years post intake).

Acute or imminent risk factors: **Higher symptom levels of *psychic anxiety* (in which people ruminate about bad things that may happen to them)*, panic attacks, anhedonia (loss of interest or pleasure compared to person's normal levels) and alcohol abuse* were associated with early suicide whereas**

Longer-term risk factors: **Higher symptom levels of *hopelessness, suicidal ideation and a history of suicide attempts* were associated with late suicide.** [175, 176]

In an interview about his four-year research project, Fawcett states, "We realized that suicidal ideation, prior suicide attempts, and all of the traditional predictors predict the long-term risk of suicide, not the short-term risk. The traditional risk factors were predictive in the long term: suicidal ideation, prior suicide attempts and strongly predictive was hopelessness. Of course, it is the short-term risk that is more important to clinicians who need to assess whether patients are in imminent danger of harming themselves." [177]

He states further that[178, 179]

- "Anxiety symptoms emerged as major short-term suicide risk factors in the multivariate analysis of first-year patients. Anxiety symptoms could predict 93 percent of the first year suicides, but could not predict suicides that occurred during subsequent years.

[175] Bender (June 6, 2003) at http://pn.psychiatryonline.org/content/38/11/28.1.full

[176] Clark and Fawcett (1992) at http://books.google.com/books?id=mTuoxob0ByQC&pg=PA55&lpg=PA55&dq=Jan+Fawcett,+M.D.+suicide&source=bl&ots=4ApD7XWI5g&sig=Dy8DneZNw6Ib5LLmhPXVM_VQGUs&hl=en&ei=sS7bS_aZKML58Aa8kr2pAg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CBsQ6AEwAw#v=onepage&q=Jan%20Fawcett%2C%20M.D.%20suicide&f=false

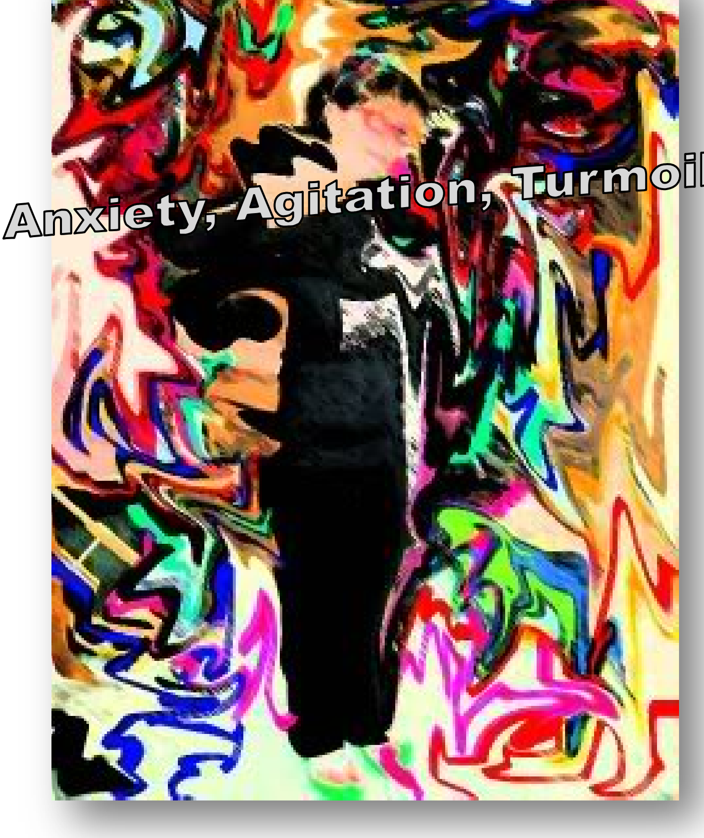
[177] …(n.d.) *Understanding the New risk Factors for Suicide: An Interview with Jan Fawcett, M.D.* at http://portal.countyofventura.org/portal/page/portal/HCA/VCMC/STAFF/LITERATURE/Understanding%20the%20New%20Risk%20Factors%20for%20Suicid1.pdf

[178] …(n.d.) *Understanding the New Risk Factors for Suicide: An Interview with Jan Fawcett, M.D. at* http://portal.countyofventura.org/portal/page/portal/HCA/VCMC/STAFF/LITERATURE/Understanding%20the%20New%20Risk%20Factors%20for%20Suicid1.pdf

[179] Fawcett (2006) at http://books.google.com/books?id=jelwzAQ1BtAC&printsec=frontcover&dq=Textbook+of+Suicide+Assessment+and+Management.&source=bl&ots=eKj3aSRYg6&sig=lTJc7u19OjS0TiDHA-WPjefFM9Q&hl=en&ei=41vdS5exOoKB8gbSk4ScCA&sa=X&oi=book_result&ct=result&resnum=7&ved=0CDQQ6AEwBg#v=onepage&q&f=false

- A high level of anxiety was the most important short-term predictor of suicide, and perhaps the most treatable one - both panic attacks and high levels of generalized anxiety manifested by worry, insomnia, anxious anticipation, and diminished concentration.

  Individuals at high risk may present in an agitated state with severe psychic anxiety, panic attacks and severe or global insomnia (hardly able to sleep at all). They may present with depressive turmoil, a mixed emotionally distressed state with depression and elevated energy levels at the same time or rapidly cycling.



- Moderate alcohol abuse also predicted suicide over the short-term. Fawcett states that the recent onset of moderate alcohol abuse as an attempt to treat anxiety, panic or sleeplessness was a significant differentiator of short-term suicides.
- In our patients, severe anhedonia also predicted suicide [in the short term], although hopelessness did not." Note: Severe anhedonia implies that the patient could not be distracted from the depressed state by any positive stimulus or experience.

Research by others supports these findings. For example, in a study by Simon and colleagues,[180] reported by Fawcett,[181] on 32, 000 people with bipolar disorder, the highest risk factor identified for suicide completion was being male and *having a comorbid anxiety disorder*. Ninety percent of admissions to an ER after suicide attempts severe enough to require hospitalization reported severe psychic anxiety within 1 month prior to their suicide attempt as well as a high rate of insomnia.[182] In a study of 76 inpatient suicides, 77% had a recorded entry in their clinical record indicated that they had denied suicidal intent while 72% had episodes of severe anxiety or agitation within 7 days of their suicide in the hospital.[183]

[180] Simon (2007) at http://www.medscape.com/medline/abstract/17680924 at
[181] Gould (Jan 22, 2008) at http://www.medscape.com/viewarticle/567282
[182] Hall et. al. 1999 at http://www.drrichardhall.com/Articles/suicide.pdf
[183] Busch et al. 2003 - Cited in Fawcett (2006) at http://books.google.com/books?id=jelwzAQ1BtAC&printsec=frontcover&dq=Textbook+of+Suicide+Assessment+and+Management.&source=bl&ots=eKj3aSRYg6&sig=lTJc7u19OjS0TiDHA-WPjefFM9Q&hl=en&ei=41vdS5exOoKB8gbSk4ScCA&sa=X&oi=book_result&ct=result&resnum=7&ved=0CDQQ6AEwBg#v=onepage&q&f=false

Stated once again - for emphasis, *anxiety may be the most dangerous symptom in depression and the suicide risk seems proportionate to the severity of the anxiety. Severe anxiety, panic attacks and/or agitation combined with recent moderate alcohol use and severe insomnia should alert clinicians to the possibility of imminent suicide.*[184]

How are people assessing for risk? A large number of organizations providing mental health services (and this includes a full range from inpatient through in-home services) *limit their documented suicide risk assessments to ideation, plans, means and previous attempts.* It is still the case that large numbers of providers are simply *writing "no S.I."* ("no suicidal ideation or intent").

In response to The Joint Commission's National Patient Safety Goal (NPSG 15.01.01) that requires organizations to "conduct a risk assessment that identifies specific characteristics of the individual served … that may increase or decrease the risk for suicide,"[185] some organizations have added *a checklist of several suicide risk factors, usually evaluating for presence or absence* ("yes" or "no") of a given factor – not for severity. And, *a few have included protective factors* on that checklist.

Some clinicians may evaluate more fully based on their *"clinical experience"* (which, if their clinical training and experience is comprehensive, may actually improve their assessments), but the process is unstructured and not systematic and the results are undocumented.

Suicide risk assessments must be systematic and structured in their design and documentation. Cues (i.e., forms, cueing questions, guidelines) that structure clinical decision-making about suicide must be evidence-based. In line with this thinking, then, suicide risk assessment should differentiate between…

- **Acute and long-term risk factors**
- **Modifiable or non-modifiable risk factors**

The interventions required by individuals at acute risk for suicide may be quite different from those required for individuals at chronic or longer-term risk. For example, Fawcett says…

- The *anxiety-related symptoms associated with short-term risk may be modifiable*, thus potentially decreasing the likelihood of imminent suicide. They should be treated rapidly.

  Fawcett recommends medication that can quickly reduce anxiety and agitation.[186] To the extent that hopelessness is part of the individual's psychic pain, adding cognitive

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[184] …(n.d.) *Understanding the New risk Factors for Suicide: An Interview with Jan Fawcett, M.D.* at http://portal.countyofventura.org/portal/page/portal/HCA/VCMC/STAFF/LITERATURE/Understanding%20the%20New%20Risk%20Factors%20for%20Suicid1.pdf
[185] The Joint Commission (2010)
[186] Gould (Jan 22, 2008) at http://www.medscape.com/viewarticle/567282

behavioral approaches to reducing suicide risk and/or hopelessness to the medication regimen might be a very effective approach to reducing the likelihood of suicide.

- The *hopelessness, substance abuse, impulsivity and other such psychological symptoms or conditions associated with long-term risk are modifiable* as well, thus potentially reducing the likelihood of suicide later on.

  Fawcett notes that therapies such as dialectic behavior therapy to address impulsivity and destructive impulses and cognitive behavior therapy to address hopelessness and helplessness may be useful here. Continued medication may be important as well, e.g., he notes that lithium reduces long-term suicide rates in people with bipolar disorders. [187]

Other important considerations in assessing for suicide risk include the fact that people do not tell mental health professionals about their suicidal ideation or intent - only a quarter of the people who see mental health professionals and commit suicide report their intent to those mental health professionals prior to doing so,[188] whether in inpatient or outpatient treatment settings.

In fact, people who plan to commit suicide are much more likely to communicate their intent to the people with whom they are close.
Results from a 20-year-old study showed that 69 percent of people revealed their wish to commit suicide to an average of three people within one year of their suicides. Spouses, coworkers, and friends topped the list of confidantes. Only 18 percent of those who committed suicide communicated their intent to a mental health professional. "They were telling other people what they weren't telling the clinician." Unfortunately, many of these individuals may not recognize the seriousness of the communication at the time it occurs.[189]

Additionally, for those who commit suicide, there appears to be a high rate of physician contact in the months before death. Psychological autopsy studies find that 80% of the people who committed suicide saw a physician in the month prior to their death. Fawcett states that this fact may suggest that those struggling with psychiatric disorders, e.g., major depression, may focus on the vegetative symptoms and look for physical solutions. The primary care physicians may not recognize these as signs of depression and may not evaluate for suicidal ideation.[190]

How often do you ask family or significant others if an individual about whom you may have some concern has expressed any "tiredness with life," "desire to end his or her life," or other indications that s/he might commit suicide? Probably rarely, if ever. Yet, Fawcett's information suggests that such a practice should be systematically implemented, especially in cases in which an individual displays the acute risk factors for suicide.

To summarize, Fawcett[191] recommends that clinicians should

[187] Gould (Jan 22, 2008) at http://www.medscape.com/viewarticle/567282
[188] Bender ((June 6, 2003) at http://pn.psychiatryonline.org/content/38/11/28.1.full
[189] Bender (June6, 2003) at http://pn.psychiatryonline.org/content/38/11/28.1.full
[190] Bender (June6, 2003) at http://pn.psychiatryonline.org/content/38/11/28.1.full
[191] The summary comes from all of the information reviewed in Fawcett's publications for this article.

1. **Screen for both acute and chronic suicide risk factors,** differentiating results – and remembering that the denial of ideation and/or a plan is not by itself sufficient evidence to conclude that a person is not at acute risk.

2. **Evaluate for severity and duration of risk factors, not just presence**. For example, this means determining the severity of anxiety, insomnia, hopelessness and so on as well as determining if the symptoms occur periodically or constantly, if the individual can be distracted from the symptoms or not. Providers need to evaluate the severity of psychic pain and how well the individual can tolerate it now. Fawcett[192] says that it is difficult to make such an assessment objective, but such a difficulty only warrants working at learning to perfect skills at assessing symptom severity. Issues to consider include

    - **Intensity** of the symptom as described by the person
    - **Tolerability** of the psychic pain described by the person (For example, one might ask the individual to rate how tolerable the anxiety or hopelessness is for them on a 1 to 5 scale.)
    - **Duration** or the amount of time every day the symptom occupies the person and when it is present (e.g., during the night when unable to sleep, or all day or both).
    - Be sure to have clients **rate all the relevant symptoms**, e.g., anxiety, panic attacks, insomnia and so on.

3. **Question significant others** to whom the individual might disclose a desire to die, especially if there is concern that suicide risk is acute

4. **Assess for illnesses that may co-occur with any anxiety, hopelessness or depression which might increase the severity of suicide risk.** These include alcohol or substance abuse (or even patterns and purpose of use), PTSD, Axis II Cluster B disorders and chronic physical pain and/or illness.

5. **Identify the modifiable risk factors** and begin to treat them appropriately, that is, rapidly reducing anxiety and agitation in those with acute risk and using approaches that reduce impulsivity (including substance abuse) and hopelessness in those with longer term risk factors

6. **Evaluate patterns associated with prior attempts to identify any individual risk factors** that need attention – as well as any individual manner of presenting symptoms.

And, finally, suicide risk assessments need to be **completed at the times of greatest risk.** Fawcett describes those as follows:

- Within a week after admission to a psychiatric hospital
- Within a week after discharge from a psychiatric hospital

[192] Fawcett (2006) at http://books.google.com/books?id=jelwzAQ1BtAC&pg=PA255&lpg=PA255&dq=Jan+Fawcett,+M.D.+suicide&source=bl&ots=eKj39OO0bd&sig=hGB7-YMJtRAjkFUE6-7ty1v2DMU&hl=en&ei=sS7bS_aZKML58Aa8kr2pAg&sa=X&oi=book_result&ct=result&resnum=7&ved=0CCUQ6AEwBg#v=onepage&q=Jan%20Fawcett%2C%20M.D.%20suicide&f=false

- During times of abrupt clinical change, e.g., the sudden worsening or improvement of a person's mental status, and/or periods of great stress such as financial, interpersonal, or job losses, exacerbation of pain or a debilitating physical condition, recurrence of alcohol or substance abuse.[193]

Should we use standardized suicide risk assessments? Many providers might like to use standardized suicide risk assessments. The problem with many of those is that, even if a test correctly identifies a significant number of people who will commit a suicidal act, too often the number of false positives, that is, those identified as at high risk who do not commit suicide, is so high that the results are inefficient. For example, in one test Simon studied, over a quarter of the patients admitted to an inpatient unit were identified as suicidal while only half of those who actually committed suicide were predicted accurately. It is impossible to put a quarter of admissions to a psychiatric unit on "suicidal precautions" or to admit a quarter of outpatients to an inpatient unit – when a much smaller number actually need it.[194]

In fact, the American Psychiatric Association ethics code states the following regarding the use of suicide assessment scales:

> "Although a number of suicide assessment scales have been developed for use in research ..., their clinical utility is limited. Self-report rating scales may sometimes assist in opening communication with the patient about particular feelings or experiences. In addition, the content of suicide rating scales, such as the Scale for Suicide Ideation and the Suicide Intent Scale, may be helpful to psychiatrists in developing a thorough line of questioning about suicide and suicidal behaviors. However, existing suicide assessment scales suffer from high false positive and false negative rates and have very low positive predictive values. As a result, such rating scales cannot substitute for thoughtful and clinically appropriate evaluation and are not recommended for clinical estimations of suicide risk." (quoted from the *APA Practice Guidelines for the Assessment and Treatment of Patients with Suicidal Behaviors*)[195]

Fawcett appears to have used the Schedule for Affective Disorders and Schizophrenia – Change Version[196] as a tool and/or questioning format in his research. It or relevant questions/items from it (SADS-C) could be used in a semi-structured interview. It was originally developed in 1978 as a diagnostic interview. In addition to identifying if a person meets criteria for a given DSM diagnosis, it calls for the rating of the person's symptoms and level of functioning. These items along with the rating scales might be incorporated into a systematic suicide risk assessment interview.

How should we assess for key psychological risk factors? Given the strong relationships identified between severe anxiety (co-occurring with mood disorders), mood disorders, hopelessness, impulsivity, substance abuse and other conditions previously noted, it might make sense to use measures of these states. An example would be the

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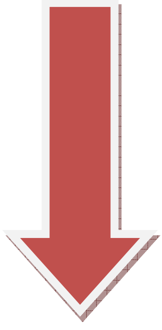
[193] Bender (June 6, 2003) at http://pn.psychiatryonline.org/content/38/11/28.1.full
[194] Simon (2004) at http://books.google.com/books?id=wPISeZFOTdwC&pg=PA105&lpg=PA105&dq=Prediction+of+suicide+in+psychiatric+patients:+report+of+a+prospectivestudy.&source=bl&ots=kbuqh7xrBX&sig=bKfjPb_xYyFD57g-3oMGXwpNk2Y&hl=en&ei=n-GkS_unLtKXtgev-oXxCQ&sa=X&oi=book_result&ct=result&resnum=3&ved=0CBMQ6AEwAg#v=onepage&q=&f=false
[195] Jacobs (post 2007) at http://www.naphs.org/Teleconference/documents/ResourceGuide_JCAHOSafetyGoals2007_final.pdf
[196] Endicott and Spitzer (1978) at http://www.ncbi.nlm.nih.gov/pubmed/678037

Beck Hopelessness Scale. While it has a very high ability to identify those who do suicide, it also has a high false positive rate, identifying many who do not. Since hopelessness has been identified as a long-term risk factor, its existence in and of itself may not require hospitalization or "suicidal precautions". And certainly addressing hopelessness is a very appropriate treatment approach to preventing suicide on an individual basis.

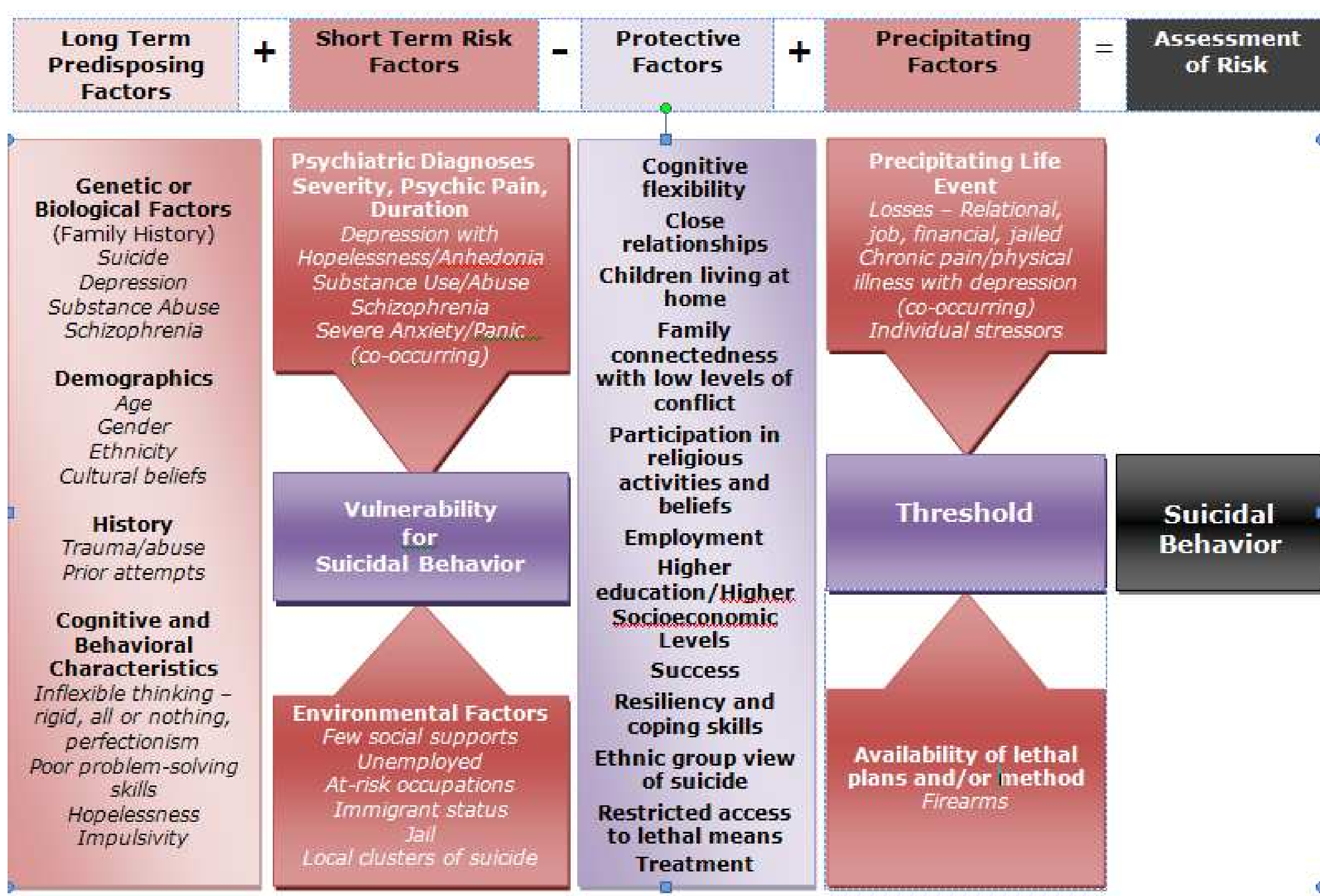
At the very least, it is important to "cue" for the evaluation of these conditions on any structured screening or assessment tool, including examining their severity and duration. As noted, a simple "yes" or "no" evaluation of their presence or absence will not be as meaningful as attempts to evaluate the severity and impact of the conditions themselves. It is here that "clinical experience and training" can bring a significant value-added component to the assessment.

Now what? Wondering how to put it all together? The National Health Service (NHS) in the United Kingdom (UK) has put together a useful model for approaching the task of assessing suicide risk. It is called The Threshold Model[197] and is an approach to putting the various risk factors and protective factors together.

Here's what it looks like – modified to include the various risk and protective factors identified in this article. It may be useful in designing a semi-structured interview that would help in providing a more comprehensive and systematic approach to suicide risk assessment than is currently used in many organizations.



[197] Matthews and Paxton (2001) at http://spinner.cofc.edu/Betterthingstodo/Peer_Educator/suicide.pdf?referrer=webcluster&



Certainly, this model could be helpful in identifying long-term suicide risk factors, the more common precipitating events to look for, environmental stressors and protective factors (the absence of which could be built on). Using this tool in combination with the suggestions made by Fawcett for evaluating psychiatric symptoms in more depth - and responses to stressors – should help in structuring a more comprehensive and systematic approach to assessment.

Take a moment to see what you've learned. Below is the SAD Person, a simple suicide screening tool developed for use by non-mental health personnel in emergency rooms to help nursing staff determine where and how quickly to direct a person for further mental health evaluation.[198]

[198] Osterweil (May 2007) at http://www.psychiatrictimes.com/display/article/10168/58341?pageNumber=4

SAD PERSON

Sex (male)
Age less than 19 or greater than 45 years
Depression (patient admits to depression or decreased concentration, sleep, appetite and/or libido
Previous suicide attempt or psychiatric care
Excessive alcohol or drug use
Rational thinking loss: psychosis, organic brain syndrome
Separated, divorced, or widowed
Organized plan or serious attempt
No social support
Sickness, chronic disease

What's missing? What should be here, especially if used in an emergency room?
Would you say –

- At a minimum, some way of assessing for anxiety and/or agitation and for rating its severity?
- Some way of determining the degree of hopelessness or psychic pain?
- Availability of significant other to talk to?
- Other ideas?

Good job – if you identified any of those.

Let's take another quick test to see what you've learned.

Assessing for change in a person's suicide risk level: Part of assessing for risk involves assessing for changes in the risk factors over time, in response to treatment and/or in response to changes in one's situation. What does this mean you might be assessing for?

- Current suicide ideation?
- Hopelessness?
- Reductions in anxiety levels?
- Less "psychache" as described by the client?
- Changes in substance use?
- Changes in self-efficacy regarding pain or physical health conditions?
- Changes in impulsivity, e.g., fewer crises, ability to problem-solve, willingness to "stop and think" before acting?
- Changes in problem-solving strategies used to handle life stressors?

Of all of these, which might be the one least likely to "really" inform you about an individual's current suicide risk status? *"Current suicidal ideation?"* If a person reports that s/he does not have current suicidal ideation, but has other of the above conditions, he or she may still be at risk. If the person reports the existence of current suicidal ideation, it

suggests that one or several of the other applicable conditions has not been resolved or remediated. It is the other conditions that will ultimately be more informative to you in evaluating risk and in directing further treatment.

In summary, you should be aware by now that the more traditional and simple approaches to suicide risk assessment will miss many people who kill themselves. Looking at suicidal ideation, plans and means is simply not enough. Too many people have no ideation, no plans – acting impulsively when they do act suicidally - and/or don't tell mental health professionals about any thoughts of suicide.

Similarly just checking off a list of risk factors and adding the number up for a score is not sufficient either. There are significant acute risk factors that demand attention even if the total number of risk factors is small. Thus, you should know now that if a person presents with depression and co-occurring severe anxiety, panic, agitation, depressive turmoil, and/or psychic pain, they may be at risk. Getting more information from their significant other could be critical.

You have learned that the focus should be on modifiable risk factors, both for acute and chronic or long-term risk factors. Thus, treatment should address anxiety, agitation, hopelessness, impulsivity and lack of self-efficacy in dealing with stressful live events or conditions (e.g., chronic pain or debilitating physical illnesses). Prior suicide attempts should be evaluated for individual patterns that may better direct the focus of treatment.

Protective factors should be identified and built on – and used in determining risk. And, assessment should occur at risk points, entering or leaving psychiatric treatment, at the time of initially being jailed, at the time of being picked up for deportation, when significant losses are occurring, especially losses of relationships, when sudden changes occur, e.g., symptoms worsen or improve.

This information may not simplify your suicide risk assessment process. Suicide risk assessment is not a simple process, but it may improve your ability to identify those at imminent risk and to identify modifiable risk factors and include them in your treatment plans.