Suicide Risk Assessment Overview

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Overview of Suicide

Approximately 45,000 people die via suicide annually in the United States (2016 data).[1] On average, 123 people die by suicide every day.[2] Suicide and self-harm injuries have a total estimated cost of $70 billion per year in the U.S. Over the last several years, suicide rates have been steadily rising.[1] Suicide is increasingly becoming a major public health crisis and is now the 10th leading cause of death overall.[3] Among young males, aged 10-34, suicide is the 2nd leading cause of death. In fact, suicide accounted for about 1/5th of deaths of young men aged 15-24 years old in 2015.[4] Although women attempt suicide 3-4 times more often than men, men choose more lethal means and have a much higher rate of completed suicide. Approximately 80% of completed suicides are among men.[5]

Suicide Risk Assessment

Suicide risk assessment and risk management are considered core competencies for all mental health professionals.[6] Many malpractice lawsuits stem from completed suicides in which the physician allegedly failed to adequately assess suicide risk.

Suicide risk assessment is a process in which evidence-based risk factors and protective factors are identified and incorporated into a clinical formulation that estimates risk of suicide. This process guides clinical decision making regarding necessary level of care and treatment interventions.[6]

Despite the rising rates of suicide, it remains a low-base rate event (approximately 13 people per 100,000 Americans die by suicide each year.[3] Due to the low absolute base-rates, accurate prediction of suicide is statistically unreliable and prone to a high number of false-positives (estimation of high risk, but completed suicide does not occur). However, because the magnitude of the potential harm is so great, false positives are considered to be more acceptable. No suicide risk assessment method has been shown to predict suicide with reliable sensitivity and specificity.[6] To complicate matters further, many suicide attempts are impulsive, and thus risk level has the potential to change quickly.[7]

Nonetheless, when faced with a potentially suicidal patient, physicians have a duty to perform an adequate assessment of suicide risk and determine interventions that are appropriate to attempt to keep the patient safe. Although the outcome of suicide cannot be accurately predicted, mental health providers are trained to assess for the presence and absence of various risk factors and categorize into low, moderate, or high levels of risk. The data for a suicide risk assessment is generally collected as part of the clinical interview, though some structured tools are available to guide the assessment, as discussed below.

Suicide Risk Factors, Protective Factors, and Structured Instruments

Many risk factors have been shown to be correlated with suicide. The SAD PERSONS scale is 10-item mnemonic developed by Patterson et al. in 1983 that is often taught to medical students to help them remember various suicide risk factors. The scale (with updated age information) is outlined below.

S= Sex (Males more often complete suicide.)
A= Age (As of 2016, the highest risk age group is 45-54 and >85)
D= Depression
P= Previous Attempt
E= Ethanol Abuse (Alcohol)
R= Rational thinking loss
S= Social supports lacking
O= Organized plan
N= No spouse (Unmarried or widowed individuals are higher risk.)
S= Sickness (Individuals with chronic medical problems or chronic pain are higher risk.)

Although this scale may help clinicians to remember suicide risk factors, subsequent studies showed little evidence that the scale performed well in assessment or prediction of suicide and suicidal behavior.[8] The scale was originally developed to be scored with one point per risk factor, however, there are concerns that this type of scoring method could miss potentially high-risk situations. For example, consider a middle-aged married woman with postpartum psychosis, but no prior depression or suicide attempts. If she is hearing voices of demons telling her to kill herself to save her baby from torture, clinically, she would be considered to be at acutely elevated risk, despite a low score on the SAD PERSONS scale.

More comprehensive suicide risk assessment scales have since been developed. One gaining popularity is the Columbia-Suicide Severity Rating Scale (C-SSRS). This is a structured instrument that guides collection of data about suicide risk factors. Several versions have been developed and the scale comes in more than 100 languages. It has reliable psychometric properties.[9] The advantage of this scale is that it is very comprehensive. However, due to its length, it could be cumbersome and time consuming to use.

Detailed information about the C-SSRS can be found at: http://cssrs.columbia.edu/ The website includes a one-page checklist (found under the C-SSRS for Communities and Healthcare) that reviews various **suicide risk factors** including:

- Past suicidal and self-injury behavior
- Suicidal ideation, plan, intent
- Activating events (e.g. recent loss, pending incarceration or homelessness, feeling alone)
- Treatment history (e.g. previous psychiatric diagnoses and treatments, hopeless/ dissatisfied with treatment, noncompliant with treatment)
- Hopelessness
- Major depressive episode
- Mixed affective episode
- Command hallucinations to hurt self
- Highly impulsive behavior
- Substance abuse or dependence
- Agitation or severe anxiety

- Perceived burden on family or others
- Chronic physical pain or other acute medical problems
- Homicidal ideation
- Aggressive behavior towards others
- Method for suicide available
- Refuses or feels unable to agree to a safety plan
- Sexual abuse history
- Family history of suicide

The checklist also includes **protective factors** against suicide including:

- Identifies reasons for living
- Responsibility to family or others; living with family
- Supportive social network or family
- Fear of death or dying due to pain and suffering
- Belief that suicide is immoral; high spirituality
- Engaged in work or school

Warning Signs for Suicide

In addition to the risk factors noted above, certain behaviors can be considered **warning signs** for suicide. Examples of warnings signs compiled from the National Institute of Mental Health and the Veterans Administration Suicide Risk Assessment Pocket Card include:[10]

- Talking about death, wanting to die, or wanting to kill themselves
- Talking about feeling empty, hopeless, or having no reason to live
- Making a plan or looking for a way to kill themselves, such as searching online, stockpiling pills, or buying a gun
- Expressing feelings of excessive guilt or shame
- Talking about feeling trapped or feeling that there are no solutions
- Talking about being a burden to others
- Using increasing amounts of alcohol or drugs
- Acting anxious or agitated
- Withdrawing from family and friends
- Changing eating and/or sleeping habits
- Showing rage, anger, or seeking revenge
- Taking great risks that could lead to death (e.g. reckless driving)
- Displaying extreme mood swings
- Giving away important possessions
- Saying goodbye to friends and family
- Putting affairs in order, making a will

Gathering Information about Suicide Risk

When gathering data about suicide risk, it is important to first establish a rapport with the patient before inquiring about sensitive topics. Open ended questions and empathic listening with reflective statements to convey understanding, e.g. "It sounds like that was really stressful" are helpful. When inquiring about suicidal ideation, the suicide ladder or cascading questioning method of inquiry can be useful (adapted from VA Suicide Risk Assessment guide [10] and lecture material by Phillip Resnick, M.D.):

1) Are you feeling hopeless?
2) Do you sometimes wish you were dead?
3) Have you thought of taking your life?
    a. If yes, how often do the thoughts come up?
    b. How persistent are the thoughts?
4) Have you thought of a plan to end your life?
    a. If yes, have you taken any steps to prepare?
    b. What other methods have you considered?
    c. Have you researched plans to hurt yourself?
5) How close have you come to ending your life?

Although it is best to avoid a "checklist style" interview, consider bringing an organized list of suicide risk and protective factors to reference near the end of the interview. This will ensure that important data is not missed.

Some tips for engaging the patient with suicidal ideation during the interview include (adapted from the VA Suicide Risk Assessment Guide):[10]

- Listen patiently and non-judgmentally. Allow the patient to express their feelings.
- Do not appear shocked.
- Be direct. Talk openly about suicide. Share your concerns about the patient's safety based on the information that you have collected.
- Do not offer false promises to the patient (e.g. secrecy when the patient may actually need to be committed to the hospital).
- Offer hope, but avoid naïve reassurances that one simple problem solution will rapidly change the way the patient feels.

Keep in mind that a patient who has already decided to end their life may not be truthful in their responses. Always consider obtaining collateral information when there are safety concerns. If the patient refuses to sign a release to communicate with a family member or friend, consider calling and receiving information without disclosing any HIPAA protected information. If a patient wrote a suicide note in their moment of crisis, be sure to read the note as this can offer crucial information, even if the patient later minimizes their suicidality. Look for inconsistencies in the history (e.g. patient reported that he just took two Xanax tablets to sleep, but mother found her son obtunded with an empty pill bottle next to him).

During questioning, be sure to use clear terminology. Note that some patients engage in self-harm behaviors (e.g. cutting, burning) without suicidal intent, to relieve emotional distress. Although this is a maladaptive coping strategy and may be relevant to the clinical picture and risk assessment, self-injurious behavior (or thoughts) without suicidal intent are different than suicide attempts (and suicidal thoughts). Thus, asking about thoughts of "self-harm" may elicit a much different response than asking about thoughts of suicide or thoughts of ending one's life.

Formulating and Documenting a Suicide Risk Assessment and Plan

Suicide risk factors can be organized by dividing into static (not subject to change by intervention) and dynamic (subject to change by intervention) factors. This division is important clinically because treatment interventions target the dynamic risk factors (e.g. depression, substance use, anxiety, negative cognitions). Some patients will remain at a chronically high risk for suicide due to the presence of multiple static risk factors that cannot be altered (e.g. past suicide attempts, family history of suicide, history of abuse, male). Consequently, decisions regarding necessary level of care are not as simple as low risk= outpatient, high risk= hospital. The skilled psychiatrist considers many factors in deciding what level of care is necessary including chronic risk factors, new stressors or other events that acutely elevate the risk, presence of warning signs, and the pros and cons of hospitalization.

A suicide risk assessment that documents important risk factors, warning signs, protective factors, and a thoughtful narrative about what level of care was deemed appropriate can help to protect against liability. Statements such as "Patient contracts for safety" is generally an inadequate suicide risk assessment when faced with a patient with some concern for suicide. Similarly, there is no evidence that having a patient sign a "suicide prevention contract" reduces the risk of suicide.[6]

Consider the following risk formulation regarding Ms. Smith, who presented after her boyfriend called 911 when she cut her wrist superficially due to an argument:

> *Although Ms. Smith is at chronically moderate risk of suicide due to her history of two past suicide attempts, self-injurious behavior, and history of abuse, her risk does not appear to be acutely elevated above baseline and can be managed in the outpatient setting. Her superficial cut to her wrist was in response to stress from argument with her boyfriend and she denies that she wanted to kill herself. She reports that it was, "Silly to get so upset." She denies any recent suicidal thoughts. Overall, her depression has been controlled and she is sober from drugs and alcohol and actively involved in AA. She continues to work with a therapist to improve her emotion regulation skills. Her family is supportive. She states that reasons to live include her family and future career goals. Her boyfriend and mother, after speaking with her in the emergency department, both feel comfortable with a plan for the patient to be discharged back home with her mother. There are no guns in the home. Ms. Smith agrees to follow-up with her therapist this week.*

In Ms. Smith's case, the risk assessment nicely summarizes her risk factors, protective factors, and overall estimation of risk. It was determined that outpatient level of care was sufficient with ongoing involvement in therapy and AA for Ms. Smith. In other higher risk situations, intensive outpatient treatment, residential substance use treatment, crisis stabilization unit, or inpatient hospitalization may be necessary. Regarding inpatient hospitalization, the suicide risk assessment can also help determine whether a patient will need standard milieu precautions versus continuous 1:1 observation (for extremely high-risk individuals). Keep in mind that psychiatric hospitalization is not without risks, including: stigma, financial burden, risks of assault by other patients, and potential fostering of dependency in some patients (particularly with prolonged stays). The experienced psychiatrist considers all of these nuances and uses professional judgment to determine the most appropriate plan.

For further information on suicide and risk assessment, the following resources may be helpful:

1. http://cssrs.columbia.edu/
2. https://afsp.org/
3. https://www.nimh.nih.gov/health/statistics/suicide.shtml
4. https://www.mentalhealth.va.gov/suicide_prevention/
5. The National Suicide Prevention Lifeline offers a free 24/7 crisis line 1-800-273-TALK (8255).

References

1. Stone, D. Simon, T. Fowler, K. Kegler, S. Yuan, K. Holland, K. Ivey-Stephenson, A. Crosby, A. Vital signs: trends in state suicide rates- United Stats, 1999-2016 and circumstances contributing to suicide- 27 states, 2015. Centers for Disease Control and Prevention. 2018.
2. Suicide Statistics. Retrieved from https://afsp.org/about-suicide/suicide-statistics/. Accessed on 9/23/18.
3. Suicide. (2018, May 2018). Retrieved from https://www.nimh.nih.gov/health/statistics/suicide.shtml Accessed on 9/23/18.
4. Leading Causes of Death in Males. (2016). Retrieved from https://www.cdc.gov/healthequity/lcod/men/2015/all-males/index.htm Accessed on 9/23/18.
5. Callanan, V., & Davis, M. (2012). Gender differences in suicide methods. *Soc Psychiatry Psychatr Epidemiol, 47*(6), 13.
6. Gold, L., & Joshi, K. (2017). Textbook of Forensic Psychiatry, Third Edition. In: American Psychiatric Association Publishing.
7. Smith, A., Witte, T., Teale, N., King, S., Bender, T., & Joiner, T. (2008). Revisiting impulsivity in suicide: Implications for civil liability of third parties. *Behav Sci Law, 26*(6), 18.
8. Warden, S., Spiwak, R., Sareen, J., & Bolton, J. M. (2014). The SAD PERSONS Scale for Suicide Risk Assessment: A Systematic Review *Archives of Suicide Research, 18*(4), 13.
9. Madan, A., Frueh, B., Allen, J., Ellis, T., Rufino, K., Oldham, J., & Fowler, J. (2016). Psychometric Reevaluation of the Columbia-Suicide Severity Rating Scale: Findings From a Prospective, Inpatient Cohort of Severely Mentally Ill Adults. *J Clin Psychiatry, 77*(7), 7.
10. VA Suicide Risk Assessment Guide. Retrieved from www.mentalhealth.va.gov/docs/Suicide_Risk_Assessment_Guide.doc Accessed on 9/23/18.