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Life *after* near death

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What interventions work for a suicide survivor?

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A history of SA strongly predicts eventual completion, so we must try to identify which survivors will reattempt and complete suicide. This article addresses what is known about the psychiatry of suicide survivors—suicide motives and methods, clinical management, and short- and long-term outcomes—from the perspective that suicidality in this population may be a trait, with SA or deliberate self-harm (DSH) as its state-driven manifestations. When viewed in this manner, it is not just a question of who survives a suicide attempt, but who survives suicidality.

CASE REPORT

End of the game

Ms. T, age 39, was admitted to the intensive care unit after an aspirin overdose. She had been living with a man in a southern state for 8 years since the demise of her first marriage, but kept deferring remarriage. She returned to Minnesota with her teenage daughter to visit her family and stayed 6 months. Her partner phoned Ms. T every day, telling her he wanted her to come back. One day he tired of the game and said, "Fine, don't come back." She immediately overdosed, then called him to tell him what she'd done. He called her daughter, telling her to go check on her mother and to call 911. When later asked why she did it, Ms. T said, "So he would know how much he loved me."

continued



Suicide attempt survivors

Clinical Point

A pattern of repeated nonlethal suicide attempts does not necessarily mean the patient has no real intent to die

Table 1

8 categories or narratives of suicidal behavior

Motive	Characteristics
True suicidal act	Release from intense baseline despair/hopelessness; self-nihilism as a permanent end to internal pain (entails highest intent to die and highest risk of completed suicide)
Self-mutilation	Relieving dysphoria or dissociation/depersonalization; acts of DSH designed to self-regulate or distract from emotional pain or other overwhelming affects
Retributive rage	Revenge; impulsiveness, vengefulness, and reduced capacity to conceive of other immediate options
Parasuicidal gesturing	Communication designed to extract a response from a significant other; often repetitive acts of DSH, strong dependency needs
Acute shame	Penance designed to escape from or to atone for a shameful act; often occurs within a short time after act is committed
Altruism	Relief of real or imagined burden on others; often occurs in setting of medical illness or substantial financial concerns
Command hallucinations	Acting in compliance with a command hallucination; often in setting of schizophrenia or depression with psychotic features
Panic	Driven by agitation, psychic anxiety, and/or panic attack; action intended as escape from real or imagined factor provoking agitation
DSH: deliberate self-harm Source: References 1-3	

Motive for self-harm

Ms. T's suicide attempt was nonlethal, and she reported it immediately-characteristics of parasuicidal gesturing as a motive. A useful categorization of suicidal behavior divides it into discrete categories or narratives. Gardner and Cowdry describe 4: true suicidal acts, parasuicidal gesturing, self-mutilation, and retributive rage.¹ We modify this schema with 4 additional categories: altruism, acute shame, command hallucinations, and panic (Table 1).¹⁻³ Categories are differentiated by affective state, motivation, and goal of behavior, but all involve situations in which the individual feels a lack of other options and resorts to maladaptive strategies.

Although this classification scheme helps clinicians understand a patient's mindset, the specific motive underpinning DSH or SA is not consistently linked to its lethality. True suicidal acts frequently are marked by careful planning and high-lethality methods that increase the risk of completed suicide, but any motive can lead to a lethal act, whether or not death was intended.^{2,3}

Factors that increase the risk of SA and completed suicide include male gender, age (adolescent or age >60), low socioeconomic status, and alcohol or drug abuse.⁴ An underlying mood disorder accounts for 73% of attributable risk of suicide or medically serious SA in older adults.5 This connection between mood and suicidality highlights the concept that emotional pain can cause so much suffering that patients seek release from distress by ending their lives.

A useful model by Shneidman⁶ casts psychological pain as 1 dimension in a 3dimensional system that includes press and perturbation. In this model:

• Pain refers to psychological pain (from little or no pain to intolerable agony).

• Press means actual or imagined events in the inner or outer world that cause a person to react. It ranges from positive press (good fortune, happy events, protective factors) to negative press (stressors, failures, losses, persecution), which in turn decrease or increase the likelihood of suicide.

· Perturbation refers to the state of being disturbed or upset.

Disruption in any 1 dimension tends to disturb the other 2 dimensions. When all 3 dimensions reach maximum distress, the stage is optimally set for suicide. DSM-IV diagnoses are examples of manifestations of high levels of perturbation. Perturbation



Suicide attempt survivors

Clinical Point

A suicide method's lethality does not always correlate with the individual's intent to die



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is especially conducive to suicide when it involves constriction (a sense that the only viable option is death) and a penchant for self-harmful action.

Certain risk factors make SA simultaneously more likely to occur but less likely to be lethal. For example, parental discord, nonheterosexual orientation, and female gender have been found to increase nonfatal attempts among adolescents.⁷ Borderline personality disorder increases the reattempt rate out of proportion to completion among adults.⁸ One might interpret a pattern of repeated nonlethal attempts to mean the patient has no real intent to die, but this is not always the case.⁸

CASE REPORT Caught in the act

Mrs. L, age 35, works at a nail salon and took \$12 from the cash register to buy gas so she could visit her husband in the next town. She'd never done anything like that before. She planned to return the money the next day, but her act was captured by a security camera and reported before she had a chance. Her boss said she had to go to the police.

Mrs. L was so ashamed that she decided she wanted to die. She drove her car to a remote hunting area where she tried to shoot herself in the head. The gun bucked, however, and shot her in the shoulder instead. She climbed into the front seat and drove herself to the hospital.

Method of self-harm

Survival of a suicide attempt depends in part on the lethality of the suicide method. Although she survived, Mrs. L's attempt was intended to be quite lethal and illustrates shame as a motive.

The method's lethality does not always correlate with the intent to die.⁹ Attempters with the highest suicidal intent do not reliably choose the most lethal method, either because they overestimate the lethality of methods such as cutting or overdose or because less lethal methods were most accessible.

Physicians have a higher suicide rate than the general population,¹⁰ probably

because of their knowledge of lethal means. Patients with greater access to information on method lethality may be more likely to match their method with their intent, thus raising the risk of suicide completion.¹¹ Patients who use a high-lethality method on the index SA tend to continue using high-lethality methods on reattempts, which makes eventual fatality likely.¹²

Firearms, which are both accessible and lethal, remain the most common and deadly method in the United States, with more suicides from gunshot than all other methods combined.¹³ Cultural factors also are involved, such as in India where poisoning (especially with readily available organophosphates) is more common than gunshot.¹⁴ Suicidality screening in psychiatric practice and in the emergency department should always include questioning about convenient access to lethal means, especially those commonly used among the local population.

Clinical management

Treatment goals for patients who have demonstrated suicidal behavior may include decreasing the occurrence of suicidal thoughts, plans, gestures, or attempts. At a population level, accepted management strategies include:

- psychotherapy (cognitive-behavioral therapy [CBT], dialectical behavioral therapy)
- contracts for safety (widely employed but lacking evidence of efficacy)
- medications that target underlying disorders (antidepressants, mood stabilizers, antipsychotics).

Acutely, benzodiazepines and even antipsychotics may play a role in calming patients who pose a danger to themselves or caregivers.¹⁵ Presenting symptoms can suggest appropriate pharmacologic treatment strategies (*Table 2*).^{16,17}

Ineffective interventions? A study examining suicide trends since 1990 in the United States¹⁸ found disheartening evidence that although treatment dramatically increased, the incidence of suicidal thoughts,

Symptom-targeted pharmacologic treatment of suicidal patients

Drug class	Impulsive-behavioral dyscontrol	Affective dysregulation	Psychotic features	
SSRIs	Self-damaging behavior, impulsivity	Mood lability/mood crashes; anger; temper outbursts		
Antipsychotics		Anger, temper outbursts	Cognitive symptoms; perceptual symptoms	
Mood stabilizers (lithium, carbamazepine, valproic acid)	Self-damaging behavior, impulsivity	Mood lability/mood crashes, anger, temper outbursts		
SSRI: selective serotonin reuptake inhibitor				

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plans, gestures, or attempts did not significantly decrease (*Box 1, page 40*).¹⁸⁻²⁶ Based on a systematic review of 15 randomized controlled trials, Arensman et al¹⁹ offered 2 explanations for why studies of various psychosocial and pharmacologic interventions showed no significant effect on suicidality compared with usual care:

- the intervention had a negligible effect on patient outcomes
- the sample size was too small to detect clinically important differences in reattempt rates.

We feel a third factor is at work and is all too often forgotten: suicide research operates at a population level, whereas suicidal phenomena are inherently individual.

Suicide research deploys a single intervention for a diverse group of subjects rather than tailoring the approach to each particular case. A certain intervention may be highly effective for 1 patient because it is well matched to the specific blend of issues driving that patient's suicidality, yet ineffective for another because it fails to address that individual's underlying issues. Thus, a single treatment program standardized for research can be simultaneously a success and a failure, depending on which patient is assessed. The overall outcome is statistical insignificance because success is lost in the noise of failure.

Treating the individual. To individualize your treatment approach, it may be useful to recast the case and treatment strategy into Shneidman's cubic model.⁶ Identifying the uniquely personal drivers behind a patient's thoughts and actions helps point toward the most effective management approach. Tailored pharmacologic treatments and psychotherapy can be used to help guide the patient away from maximum suicide risk.

A recent study by Brown et al²⁷ found a significantly lower reattempt rate and less severe self-reported depression and hopelessness in patients who received CBT for 18 months after a suicide attempt, compared with controls. Another recent trial found that SA patients who received 18 months of partial hospitalization, mentalization-based therapy, and 18 months of follow-up group therapy had a dramatically lower suicide completion rate at 5 years compared with patients who received treatment as usual.²⁸

Outcomes of self-harm

When considering outcomes of SA, it is important to separate the short-term outcome of a single SA from the long-term outcome of suicidality. Short-term outcome depends on the characteristics and management of the acute episode, whereas long-term encompasses ongoing management of suicidality as a trait.

In the short term, surviving a SA depends heavily on the lethality of method and access to acute treatment. It also depends on medical fitness to withstand injury, which may help account for the higher death rate among elderly suicide attempters. A frail or

Clinical Point

CBT for 18 months has been shown to significantly lower the suicide reattempt rate and reduce depression and hopelessness



Suicide attempt survivors

Clinical Point

Some patients will never reattempt suicide, but in others suicidality is a chronic, maladaptive pattern that is potentially lethal



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Box 1

Which strategies reduce subsequent self-harm in suicide attempt survivors?

Treatment of suicide attempt survivors has dramatically increased in the United States since 1990, but the incidence of suicidal thoughts, plans, gestures, or attempts has not significantly decreased.¹⁸ A systematic review of 15 randomized controlled trials using the search methods published by Arensman et al¹⁹ reveals very little difference in the suicide reattempt rate, despite extra treatment beyond the "usual standard of care."

Intervention strategies shown to significantly decrease the rate of self-harm include home visits, behavioral therapy, and a "green card" strategy (patients were issued a card at the time of discharge explaining that a doctor was always available for them and how that doctor could be contacted).²⁰⁻²³

No significant difference in reattempt rate was found with other strategies, although benefits such as lower rates of depression and suicidal ideation or higher outpatient visit attendance were observed in some trials.²⁴⁻²⁶ For a table summarizing the studies' methodologies and results, see this article at CurrentPsychiatry.com.

medically ill person is less likely to survive the bodily insult of a SA.

Long-term outcomes are harder to predict. Some patients' index attempts result from a transient state—an isolated incident that never will be repeated. In others, suicidality is a trait—a chronic maladaptive pattern that is potentially lethal. After an index attempt, the most reliable predictors for eventual death by suicide are:

• diagnosed mental illness

- high-lethality method on the index SA
- number of reattempts.⁴

As time since the index attempt increases, the risk of repeat self-harm and of suicide completion both decrease.²⁹ This raises the tantalizing prospect that if patients can be effectively bridged across the first months and years after the index attempt, they may be more likely to survive their suicidality.

Mood disorders impact long-term outcome, yet only a limited number of studies have found a reduction in suicide rates in response to mood disorder treatment. In a 44-year follow-up study, long-term treatment of depression and bipolar disorder with lithium significantly reduced the suicide rate.³⁰ A meta-analysis of recurrent major affective disorder studies found that subjects on lithium maintenance treatment were 15 times less likely to commit suicidal acts, compared with those not on lithium.³¹

An important confounding factor in these findings is that effective lithium treatment requires long-term adherence, which implies a long-term doctor-patient relationship. As Cipriani et al³² noted, patients who can maintain an ongoing therapeutic relationship may be "less disturbed" than those who cannot, making them less likely to kill themselves regardless of pharmacologic treatment. Furthermore, patient interviews reveal that the therapeutic alliance created by a continuous relationship can be a protective support against further SA.³³

Clinical implications

Suicide survivors often continue to struggle with suicidality well beyond the index attempt. This suicidality is a maladaptive problem-solving method that functions as a chronic morbid illness. As such, it is not enough to analyze the phenomenon of surviving an SA; one must examine the ongoing process of surviving suicidality.

Consider 3 factors. Consider all 3 factors motive, method, and management—when addressing suicide survivorship.

Motive does not cleanly predict completion of a given SA, but it can help predict the likelihood of reattempt, which in turn affects the likelihood of eventual completion. Motive also serves as a clinical tool because neutralizing the driving factors behind an individual's suicide attempt can solve the acute problem and help avert a reattempt.

Method lethality significantly influences survival likelihood. In clinical practice, we have observed that the index attempt is a learning experience for some patients that will inform their choice of method on the next attempt. When interacting with a suicide survivor, carefully assess the reasoning behind their initial choice of method and whether it has evolved toward higher lethality since the index attempt.

Management recommendations after SA continue to evolve. Risk factor management—such as treating underlying mood disorders, home visits to reduce social isolation, and prioritized "green card" contact with psychiatrists—has been shown to decrease reattempt rates, but many other interventions have not shown the expected benefit. Increased intervention rates have not yielded proportional decreases in suicidal ideation, attempts, or completion.

Common themes among effective management techniques appear to be keeping lines of communication open and individualizing treatment. (*Box 2*). Our group is studying SA patients in Olmsted County, Minnesota, over the past 40 years, seeking connections between motive, method, management, and outcome. We hope trends emerging from this data will inform clinical strategies tailored to subgroups of this patient population.

References

- Gardner DL, Cowdry RW. Suicidal and parasuicidal behavior in borderline personality disorder. Psychiatr Clin North Am. 1985;8(2):389-403.
- Bostwick J, Levenson J. Suicidality. In: Levenson J, ed. The American Psychiatric Publishing textbook of psychosomatic medicine. Arlington, VA: American Psychiatric Publishing, Inc; 2004:219-234.
- Bostwick JM, Cohen LM. Differentiating suicide from life-ending acts and end-of-life decisions: a model based on chronic kidney disease and dialysis. Psychosomatics. 2009;50(1):1-7.
- 4. Jeglic EL. Will my patient attempt suicide again? Current Psychiatry. 2008;7(11):19-28.
- 5. Beautrais A. A case control study of suicide and attempted suicide. Suicide Life Threat Behav. 2002;32(1):1-9.
- Shneidman E. Overview: a multidimensional approach to suicide. In: Jacobs D, Brown H, eds. Suicide: understanding and responding. Madison, WI: International Universities Press; 1989:1-20.

Box 2

6 key points for managing suicide attempt survivors

Suicide survivors often continue to struggle with suicidality well beyond the index attempt

Consider the SA motive and method when planning how to manage the survivor

Method lethality significantly influences survival likelihood (firearms are the most common and deadly method in the United States)

In many clinical trials, the incidence of suicidal thoughts, plans, gestures, or attempts has not significantly decreased when SA survivors received extra treatment

Management recommendations after SA continue to evolve; effective techniques appear to be keeping lines of communication open and providing individualized treatment

Individualize pharmacologic treatments and psychotherapy to help guide the patient away from maximum suicide risk

SA: suicide attempt

- Beautrais AL. Risk factors for suicide and attempted suicide among young people. Aust N Z J Psychiatry. 2000;34:420-436.
- Black DW, Blum N, Pfohl B, et al. Suicidal behavior in borderline personality disorder: prevalence, risk factors, prediction, and prevention. J Pers Disord. 2004;18(3):226-239.
- 9. Plutchik, R, van Praag HM, Picard S, et al. Is there a relation between the seriousness of suicidal intent and the lethality of suicide attempt? Psychiatric Res. 1988;27:71-79.
- Schernhammer ES, Colditz GA. Suicide rates among physicians: a quantitative and gender assessment (metaanalysis). Am J Psychiatry. 2004;161(12):2295-2302.
- Recupero PR, Harms SE, Noble JM. Googling suicide: surfing for suicide information on the internet. J Clin Psychiatry. 2008;69(6):878-888.
- Gibb SJ, Beautrais AL, Fergusson DM. Mortality and further suicidal behaviour after an index suicide attempt: a 10-year study. Aust N Z J Psychiatry. 2005;39:95-100.
- Miller M, Hemenway D. Guns and suicide in the United States. N Engl J Med. 2008;359(10):989-991.
- Latha KS, Bhat SM, D'Souza P. Suicide attempters in general hospital unit in India: their socio-demographic and clinical profile—emphasis on cross-cultural aspects. Acta Psychiatra Scand. 1996;94(1):26-30.



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Clinical Point

It is not enough to analyze the survival of a suicide attempt; one must examine the ongoing process of surviving suicidality

Bottom Line

Suicide survivors often struggle with suicidality well beyond the index attempt. Identifying the story behind each patient's thoughts and actions points toward the most effective management approach. Tailor pharmacologic treatments and psychotherapy to guide patients away from maximum suicide risk.



Suicide attempt survivors

Clinical Point

Interventions shown to decrease reattempt rates include treating mood disorders and home visits to reduce social isolation

- Yildiz A, Sachs GS, Turgay A. Pharmacological management of agitation in emergency settings. Emerg Med J. 2003;20(4): 339-346.
- American Psychiatric Association practice guidelines. Treatment of patients with borderline personality disorder. 2001. Available at: http://www.psychiatryonline.com/ pracGuide/pracGuideTopic_13.aspx. Accessed July 8, 2009.
- Zanarini MC. Update on pharmacotherapy of borderline personality disorder. Curr Psychiatry Rep. 2004;6(1):66-70.
- Kessler RC, Berglund P, Borges G, et al. Trends in suicide ideation, plans, gestures, and attempts in the United States, 1990-1992 to 2001-2003. JAMA. 2005;293(20):2487-2495.
- Arensman E, Townsend E, Hawton K, et al. Psychosocial and pharmacological treatment of patients following deliberate self-harm: the methodological issues involved in evaluating effectiveness. Suicide Life Threat Behav. 2001;31(2):169-180.
- Welu TC. A follow-up program for suicide attempters: evaluation of effectiveness. Suicide Life Threat Behav. 1977;7(1):17-20.
- Linehan MM, Armstrong HE, Suarez A, et al. Cognitivebehavioral treatment of chronically parasuicidal borderline patients. Arch Gen Psychiatry. 1991;48(12):1060-1064.
- McLeavey B, Daly R, Ludgate J, et al. Interpersonal problemsolving skills training in the treatment of self-poisoning patients. Suicide Life Threat Behav. 1994;24(4):382-394.
- Morgan HG, Jones EM, Owen JH. Secondary prevention of non-fatal deliberate self-harm. The green card study. Br J Psychiatry. 1993;163:111-112.
- Salkovskis PM, Atha C, Storer D. Cognitive-behavioural problem solving in the treatment of patients who repeatedly attempt suicide. A controlled trial. Br J Psychiatry. 1990;157:871-876.
- Hirsch SR, Walsh C, Draper R. Parasuicide. A review of treatment interventions. J Affect Disord. 1982;4(4):299-311.
- Hawton K, Bancroft J, Catalan J, et al. Domiciliary and outpatient treatment of self-poisoning patients by medical and non-medical staff. Psychol Med. 1981;11(1):169-177.
- Brown GK, Ten Have T, Henriques GR, et al. Cognitive therapy for the prevention of suicide attempts: a randomized controlled trial. JAMA. 2005;294(5):563-570.
- Bateman A, Fonagy P. 8-year follow-up of patients treated for borderline personality disorder: mentalization-based

Related Resources

- American Association of Suicidology. www.suicidology.org.
- American Foundation for Suicide Prevention. www.afsp.org.

 Mayo Clinic Patient/Family Education. www.mayoclinic.com/ health/suicide/MH00058.

Drug Brand Names

Carbamazepine • Carbatrol				
Lithium • Eskalith, Lithobi	d			

Valproic acid • Depakene, Depakote

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treatment versus treatment as usual. Am J Psychiatry. 2008;165(5):631-638.

- Hawton K, Zahl D, Weatherall R. Suicide following deliberate self-harm: long-term follow-up of patients who presented to a general hospital. Br J Psychiatry. 2003;182:537-542.
- Angst J, Angst F, Gerber-Werder R, et al. Suicide in 406 mooddisorder patients with and without long-term medication: a 40 to 44 years' follow-up. Arch Suicide Res. 2005;9(3):279-300.
- Baldessarini RJ, Tondo L, Hennen J. Lithium treatment and suicide risk in major affective disorders: update and new findings. J Clin Psychiatry. 2003;64(suppl 5):44-52.
- Cipriani A, Pretty H, Hawton K, et al. Lithium in the prevention of suicidal behavior and all-cause mortality in patients with mood disorders: a systematic review of randomized trials. Am J Psychiatry. 2005;162(10):1805-1819.
- Sinclair J, Green J. Understanding resolution of deliberate self harm: qualitative interview study of patients' experiences. BMJ. 2005;330(7500):1112.



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