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CHAPTER 1 Introduction to Suicidology

Everyone has to die, but no one has to suicide. —ANONYMOUS

Suicide is not one thing, even though it is one word (Interian et al., 2018). As a scientific discipline, suicidology cuts across many discrete academic departments and specific disciplines. To use a regression model analogy, the total variance in suicide explained by only one academic discipline is minute. We need to go where our subject matter takes us and discard our disciplinary blinders. A way of seeing is always a way of not seeing. The real world of suicide is complex and interdisciplinary and often includes depressive disorders (see Box 1.1). The theoretical approach in the current text is biological, psychological, psychiatric, and sociological. Thus the book's title—*Suicidology: A Comprehensive Biopsychosocial Perspective*.

The Vast Panorama of Self-Destructive Behaviors and Ideas

Suicide can be defined as "intentional self-destruction resulting in your own death by your own action." Sounds pretty straightforward, right? Well, not really. In fact, there is a huge variety of self-destructive behaviors and ideas (Maris, 1991). It follows that assessment, explanation, treatment, and control of suicide are diverse and complex, too. It won't work simply to put antidepressants in the public water supply along with fluoride (however, see Ishii et al., 2015).

It is tempting to conclude that if we could effectively treat the mental disorders involving depression, then we could put a big dent in the annual suicide rate. But there are many people with depressive disorders (about 7% of the U.S. population in 12 months, 17% lifetime; Maris, 2015) and very little suicide (about 1 in 10,000 per year on average). Eighty-five to ninety percent of people with severe depressive disorders never suicide and instead usually die a natural death. The suicide rate in

BOX 1.1. Depression and the Black Wolf of Psychiatry

She is always with me, the littermate of depression. She lurks in the shadows by day and her howlings unsettle my sleep at night. Her heaviness sags my back; her wet hot breath blankets the nape of my neck. Her fangs sink deep into my being.

In the best of times, she prances at my side with the pose of a harmless, domesticated pet. But she is always there. And there is no way I can just shake her off, as she might propel crystal pellets of water following a plunge in the black swamp.

I imagine her to be a ponderous, powerful black wolf whose loyalty is inviolate. Oh, how I wish she were a bit less faithful, so I might catch a breath of peace. But this cannot be the lot of a psychiatrist or mental health professional who treats patients with severe and persistent mental illness. The black wolf of psychiatry is suicide.

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the United States overall was essentially unchanged (albeit with peaks and troughs over time and with a small but steady increase in the last decade; see Tavernese, 2016) from 1900 to 2017 (see Chapter 25, Table 25.1). Is there a rate below which suicides cannot be reduced? Is the optimum suicide rate really zero, or are we just fooling ourselves?

Figure 1.1 illustrates that the varieties of self-destructive ideas and behaviors exist on a continuum, from totally nonsuicidal thoughts/behaviors to completed suicide. This particular version of the continuum includes 10 types of suicidal ideas and behaviors related to increasing suicidality. As noted just above, only about 1 in 10,000 people in the general population complete suicide each year. When Marsha



FIGURE 1.1. A continuum of suicidality. Source: Maris (1997b).

Linehan asked random samples of shoppers in malls about suicide ideation, maybe 18–24% of the general population had it (Linehan & Laffaw, 1982). Most ideation is fleeting and episodic, and about 80% of the population hardly even thinks about suicide at all.

Columbia University measures suicidality on a 7-point scale (Posner et al., 2007; see Figure 1.2; cf. Interian et al., 2018). One reason for suicidality scales in drug studies of suicide is that drugs result in or cause a miniscule proportion (some say none; Joiner, 2010).

Completed Suicides

The typical suicide completer in most (but not all) of the world is a middle-aged or older white male, who is depressed and abusing alcohol and perhaps pain medications. He is alone (Marchalik & Jurecic, 2018) or socially isolated from his wife and/ or family; has few friends (about 50% of my Chicago suicides had no friends); and uses a highly lethal, irreversible method, most often a gunshot to the temple or mouth (see Chapter 9, Figure 9.1; see also Lester, 2012). Over time, he has grown increasingly hopeless and engages in rigid, dichotomous thinking-for instance, "Either I need to be dead, or I will continue to be miserable and have intolerable pain." Often he has some nagging musculoskeletal pain (for which he may be taking narcotics) or physical illnesses, as well as recurring work and interpersonal, marital, and/or sexual problems. About a third of suicides are unemployed when they die (Lee et al., 2018). For some time, he has experienced a series of negative, stressful life events; he may have a first-degree relative who suicided (as the famous novelist Ernest Hemingway's father did; see Case 1.1); and he may come to see suicide as the only real or permanent resolution to his persistent, escalating, intolerable life problems. Almost 90% of typical suicide completers make only one suicide attempt. For example, in my Chicago study, 88% of male suicides age 45 or older made only one fatal suicide attempt (Maris, 1981). In many ways, Hemingway was a typical suicide completer, as detailed in Case 1.1.



FIGURE 1.2. Columbia classification algorithm for suicide assessment. *Source:* Posner et al. (2007). Reprinted with permission from the *American Journal of Psychiatry*. Copyright © 2007 American Psychiatric Association. All Rights Reserved.

CASE 1.1. Ernest Hemingway

On July 2, 1961, a writer whom many critics call the greatest writer of the century, a man who had a zest for life and adventure as big as his genius, a winner of the Nobel Prize and the Pulitzer Prize, a soldier of fortune with a home in the Sawtooth Mountains, where he hunted in the winter, an apartment in New York, a specially rigged yacht to fish the Gulf Stream, an available apartment at the Ritz in Paris and the Gritti in Venice, a solid marriage, no serious physical ills, good friends everywhere—on that July day, that man, the envy of other men, put a shotgun to his head and killed himself. How did this come to pass? (Hotchner, 1966, p. ix)

Like Sylvia Plath (see Chapter 6, Case 6.1), Ernest Hemingway was a "gifted suicide" His work and sad death are widely known. Hemingway's life exemplifies many of the traits of suicidal careers discussed throughout this book, especially the roles of work problems and alcoholism in self-destruction among males.

Hemingway was born in Oak Park, Illinois, in 1899. His early years do not appear to have been happy, although Hemingway denied this. Hemingway's physician father was a suicide. His mother later sent Hemingway the pistol with which his father shot himself, as a "Christmas present."

"My father died in 1928—shot himself—and left me fifty thousand dollars.... When I asked my mother for my inheritance, she said that she had already spent it on me ... on my travel and education.... My mother was a music nut, a frustrated singer, and she gave musicales every week in my fifty-thousand-dollar music room... Several years later, at Christmas time, I received a package from my mother. It contained the revolver with which my father had killed himself. There was a card that said she thought I'd like to have it; I didn't know whether it was an omen or a prophecy." (quoted in Hotchner, 1966, pp. 115–116)

It would not be exaggerating to conclude that Hemingway experienced some relatively early trauma. Although it might be oold to assume that Hemingway's problems with his mother were the cause, it is also well known that he was married four times and had numerous affairs. His relationships with women often seemed to be explosive, compartmentalized, somewhat distant, and not altogether satisfying. However, Hemingway may simply have had great difficulty being close to anyone over long periods of time, regardless of the person's sex.

Hemingway was an active, physical man who loved professional boxing, circuses, bullfighting, horse racing, hunting, and fishing. He once remarked to actress Ava Gardner, "I spend a hell of a lot of time killing animals and fish, so I won't kill myself. When a man is in rebellion against death . . . he gets pleasure out of taking to himself one of the godlike attributes, that of giving it" (quoted in Hotchner, 1966, p. 139).

For an artist, Hemingway had surprisingly little use for the arts. He did not like theatre, opera, or ballet, and rarely attended musical concerts. Of course, those preferences may have been related to his avoidance of people, rather than to an active dislike of some of the things people do. Hemingway went to great pains at times to avoid the public, and one gets the unmistakable impression that most of those who did surround him were unabashed sycophants. As a consequence, he was often alone in the midst of a group of people, and experienced what we have called (perhaps a little too blandly) "negative interaction." Joiner (2005) calls it "thwarted belongingness."

It might be noted that Karl Menninger (1938) has claimed that the ego suffers in direct proportion to the amount of externally directed aggression. If so, Hemingway's paranoia,

anxiety, and depression likely were related to his aggressive physical behaviors early in life. For example, he once commented: "In Chicago, where you only used fists, there was this guy who pulled a shiv— . . . a knife and cut me up. We caught him and broke both of his arms at the wrists by twisting them until they snapped" (quoted in Hotchner, 1966, p. 179).

Being a very physical man, Hemingway did not tolerate illness well, although paradoxically his lifestyle seems to have invited poor health and frequent injury. For years Hemingway had problems with his weight, high blood pressure, a high cholesterol level, a chronic bad back, and other physical ailments. Yet he still drank heavily, often did not watch his diet, and continued to be injured, most notably in two small aircraft crashes in Africa in 1953 (see Farah, 2017).

After one particularly bad head injury on his fishing boat in the spring of 1951, Hemingway started talking about being "Black-Ass," or depressed. Like most depressive disorders, Hemingway's recurred periodically throughout his life. They were associated with traits that could possibly be described as mild paranoid schizophrenia (Hotchner, 1966), rigid thinking, and suicidal thoughts. In December 1960, Hemingway had 11 "shock treatments" (as electroconvulsive therapy or ECT was then called) at the Mayo Clinic to help treat his depression and suicidal preoccupation. Subsequently, there were other ECT sessions.

What seemed to bother Hemingway most was his inability to work. A series of statements made to Hotchner indicate the crucial importance of work to Hemingway (compare these to the suicide notes of Harvard physicist Percy Bridgman at Harvard and George Eastman of Eastman Kodak, the latter of whom wrote, "My work is done. Why wait?"):

"Writing is the only thing that makes me feel that I'm not wasting my time sticking around." (p. 144)

"When you're the champ, it's better to step down on the best day you've had than to wait until it's starting to leave you and everyone notices it." (p. 262)

"Hotch, if I cannot exist on my own terms, then existence is impossible. Do you understand? That is how I've lived, and that is how I *must* live . . . because . . . it doesn't matter if I don't write for a day or a year or ten years as long as the knowledge that I *can* write is solid inside me. But a day without that knowledge, or not being sure of it, is eternity." (pp. 297–298)

"The worst death for anyone is to lose the center of his being, the thing that he really is. Retirement is the filthiest word in the language." (p. 228)

Near the end of his life, Hemingway was increasingly unable to work. His career dipped; at the end, he was developmentally stagnated, frustrated in maintaining achievement in his major life aspiration of writing, hopelessly dissatisfied in other respects, and ill. It seems that his inability to work and his eventual suicide were products of an insidious interactive effect of his early life trauma; basic life values of violence and aggression; unrealistic high aspirations and expectations based on past actual performances; an inability to compromise and be flexible as his life demanded it; his aging and failing physical health; social isolation and negative interaction; recurring depression; hopelessness (Maris, 1981, p. 272); paranoia, delusions, and confused chaotic thought processes; the actual failure of a major novel; and his recent losses and preoccupation with suicide, which he was well equipped to carry out in terms of experience, knowledge, means, and will.

Basically, Ernest's ability to work had deteriorated to the point where he would spend endless hours with the manuscript of *A Moveable Feast* but was unable to really work on it. Besides his inability to write, Ernest was terribly depressed over the loss of the *finca*... His talk about destroying himself had become more frequent. and he would sometimes stand at the gun

rack, holding one of his guns, staring out the window at the distant mountains. (Hotchner, 1966, p. 274)

Finally, in Ketchum, Idaho, in 1961, just after returning from another stay at the Mayo Clinic, Hemingway killed himself with a shotgun in the early morning of July 2. Hotchner remarked that Hemingway had once commented to him that a man can be destroyed, but not defeated.

Sources: Maris (1981, pp. 165-168) and Hotchner (1966).

Not all completed suicides are like Hemingway or have all of the risk factors found in the typical profile I have just described. Although about 78% of all U.S. suicides are male, females account for the remaining 22%, which is not inconsiderable (American Association of Suicidology [AAS], 2015). Most U.S. suicides are committed by whites (90%), but roughly 6% are committed by nonwhites (mainly black males). African American female suicides are extremely rare, accounting for maybe only 1% of all suicides. Although the oldest white males—those age 85 or older—tend to have suicide rates about two to three times as high as those of younger white males, roughly 12% of suicides are committed by adolescents. Suicide rates of the oldest white males have stayed high (or dropped a little from 2006 to 2009), but went back up in 2013 (see Chapter 5, Table 5.1). The absolute highest suicide rates (19.7 per 100,000 in 2013) are among the middle-aged (specifically, those ages 45–54).

The broad category of completed suicides includes probably 15 –20 major subtypes (see Table 1.1 and Chapter 2). This is also true of nonfatal attempts, suicide ideations, and indirect self-destructive behaviors. However, the numbers and traits of types of suicide are subjective and arbitrary.

In Table 1.1 several types of suicide are specified (cf. Interian et al., 2018). It needs to be emphasized that these suicide types are somewhat arbitrary. There is no absolute number or correct classification of suicide types. Obviously, there is at least one type of suicide (viz., intentional action by the would-be suicide that results in a person's death). But, depending on your perspective, many different subtypes even of this type could also be posited.

For example, the French sociologist Emile Durkheim (1897/1951; see Chapter 7) thought that suicides were mainly ego-anomic (excessively individuated and/or experiencing normative deregulation). Psychoanalyst Karl Menninger (1938) argued that most completers were depressed, wanting revenge, or guilt-driven. French existentialist Jean Baechler (1979) felt that completed suicides were mainly motivated by escape and/or aggression (with some involving risk taking or sacrificial acts). In earlier work, I (Maris, 1981, 2015) have contended that maybe 75% of all suicides are motivated by the wish for escape, followed by revenge (perhaps 20%; cf. Joiner, 2005, 2010) has claimed that suicide completers have to achieve the ability to suicide (usually over many years and life experiences) and become more fearless of pain and death. He also asserts that they are often experiencing what he calls "thwarted belongingness" and repeated, escalating pain (including "psychache" or emotional pain). Note the disciplinary bias of all of these perspectives on suicide types, which accentuates the need for a more interdisciplinary conceptualization of suicide.

TABLE 1.1. Types of Suicide, from Different Disciplinary Perspectives



One way to delineate major subtypes of completed suicide is to cross-classify sociodemographic traits and motives (Maris et al., 1992). For example, suicides can be subdivided into younger, middle-aged, and older white males; white females (whose rates tend to peak in middle age); black males and females; and Hispanics, Asians, Native Americans, and other racial or ethnic groups. If we assume basic motivations of escape, revenge, altruism, and risk-taking, we could further

(whose rates tend to peak in middle age); black males and females; while relates (whose rates tend to peak in middle age); black males and females; and Hispanics, Asians, Native Americans, and other racial or ethnic groups. If we assume basic motivations of escape, revenge, altruism, and risk-taking, we could further specify suicidal subtypes. To illustrate, Hemingway can be thought of as an older white male suicide motivated by escape. Often it is useful to distinguish psychiatric patient suicides from suicides in the general population who have never been treated for a mental disorder. Some of the permutation and combination nuances of completed suicide subtypes are considered further in Chapter 3.

Nonfatal Suicide Attempts

It is difficult to accurately measure the incidence or prevalence of nonfatal suicide attempts, since there are no legally mandated registration requirements like the ones for suicidal deaths. One estimate (Drapeau & McIntosh, 2015) found that there were 41,149 completed suicides and 1,028,725 nonfatal attempts in 2013–a

ratio of 25:1 (usually the range is between 10:1 and 25:1). Whatever the exact ratio, it is clear that far more people make nonfatal attempts than complete suicide (Maris et al., 2000).

Again to oversimplify, the typical nonfatal suicide attempter in the United States is a younger female with interpersonal problems who overdoses, often four to five times over her life. Females on average make 3–4 suicide attempts for every 1 made by males (Maris et al., 2000; Maris, 2015). Most people (perhaps 85–90%) who make suicide attempts end up dying natural deaths. This lower fatality rate for attempters is a function of both different methods and motives.

There are a relatively small number of people who make nonfatal suicide attempts before completing suicide. In my Chicago survey, 70–75% of all suicide completers made only one attempt—and as noted above, I found that 88% of white males over age 45 made only one fatal suicide attempt (Maris, 1981). Furthermore, 84% of all suicide attempters make only two attempts, and these are mainly younger women (see Chapter 5 and Maris et al., 2000).

Men are much more likely to use firearms and hanging when they attempt suicide, while women are less likely than men to use guns and more likely to take overdoses and poisons. In 2013, the suicide completion rate for white males was 23.4 per 100,000 versus 6.5 for white females, about 3.6 times higher (Drapeau & McIntosh, 2015). Combining those data with the excessive proportion of female suicide attempters versus males (about three to four times higher), we could speculate that if women used more lethal suicide attempt methods, then the male and female suicide rates would be about the same.

Just like suicide completers, nonfatal suicide attempters do not constitute one type, but many. Since fewer suicide attempters by definition do not die, it is tempting to assume that most suicide attempters do not really want to die and choose their attempt methods accordingly. But that is overly simplistic, as the HBO documentary *Cobain: Montage of Heck* (Morgen, 2015), about the frenetic suicidal spiral of Kurt Cobain, illustrates. Among the main motives for nonfatal suicide attempts are these:

- To escape an intolerably painful life situation, even at the risk of death.
- To get even with others, or to punish themselves and/or others.
- To achieve catharsis or tension reduction, or to relieve pressure and demands.

• To 'cry for help" (Farberow & Shneidman, 1961) and initiate changes (get treatment, draw attention to themselves and relationships, to transfigure themselves or their life situations, break up an "ice-bound soul," etc.).

• To give in to impulses or take chances; to live on the edge. (However, see Joiner, 2010; also see Gilbert et al., 2011, who found that non-attempters had higher impulsivity scores than did attempters.)

Suicide Ideas and Ideation

Obviously, a lot of people think about suicide, but very few ever even attempt it, let alone complete it. Linehan and Laffaw (1982) speculate that 24% of persons in the U.S. population think about suicide at some time in their lives. In 2013, that would

have amounted to 76,800,000 (lifetime) suicide ideators. Combining these data with our earlier U.S. statistics for 2013 (Drapeau & McIntosh, 2015), we get these figures:

- 41,149 completed suicides in the year.
- 1,208,725 suicide attempts (some fatal, most not).
- 76,800,000 lifetime (dividing by 75 mean years, we get 1,024,000 per year) suicide ideators (Mundt et al., 2013, found that patients with suicide ideas and/or prior suicidal behavior were four to nine times more likely to report suicidal behavior prospectively).

As we might expect, there are many different types of suicide ideation. Suicide ideas can be the following:

- Fleeting, episodic, or situational ideas. Beck et al.'s (1979a) Scale for Suicide Ideation includes the timing and strength of the wish to die; scores on this scale range from a low of 0 to a high of 38.
- Chronic and obsessive ideas. For example, the poet Sylvia Plath obsessed about the details of suicide a lot; she thought of a skiing "accident," drowning herself in the ocean, taking an overdose of Seconal, jumping from at least the seventh floor of a building, or gassing herself by placing her head in an unlit oven. (She eventually acted on the last of these ideas; see Case 6.1 in Chapter 6.)
- Ideas including a definite plan (e.g., "I am going to save up my pain medications and then go out in the woods and take them") and a view of suicide as a solution. The philosopher Friedrich Nietzsche said, "The idea of suicide got me through many a difficult night" (quoted in Yalom, 1992).
- Ideas with no plan ("Ifow would you do it?" "I don't know").
- Lethal ideas (involving guns, hanging, jumping from heights, lying on a train track, etc.).
- Nonlethal ideas (a lot of overdosing, cutting oneself, holding one's breath until dead, etc.).
- Ideas involving not only a specific plan, but a schedule for time and circumstances (e.g., "I'll hang myself next weekend, if this pain does not subside").
- Nonspecific and vague plan ("Well, I hadn't really thought about *that*").
- Ideas involving access to lethal means (e.g., actually having a gun and bullets) or not involving such access.
- Ideas involving knowledge about utilizing means (e.g., knowing how to use a gun) or not involving such knowledge.

Many suicide ideas concern problematic interpersonal relationships. For example, de Catanzaro (1992) claims that 64–84% of the variance in suicide ideation is explained by social relations, especially romantic or sexual relations. Suicide ideas also often concern feelings of loneliness and of being a burden to others, which Joiner (2005) calls "perceived burdensomeness."

Having ideas about suicide or death is one of the official psychiatric DSM-5 criteria for diagnosing major depressive disorder. Probably the simplest (and most

unreliable) assessment of suicidality is simply to ask patients about their suicide ideation; however, writing "No SI" in a patient's chart is no guarantee that suicide ideas are not present (Silverman & Berman, 2014; Berman, 2018). Patients often are aware that admitting to suicide ideas means running the risks of forced treatment, coercive intervention, and sanctions. There have been cases of military personnel denying their suicide ideas to avoid not being promoted, even though they were actively suicidal (see Chapter 20). In 2015, the copilot of Germanwings Flight 9525, Andreas Lubitz, hid his suicide ideas and plans (for crashing the plane into a mountain) from his superiors in order to be able to carry them out.

Some suicide ideas may be "transformation drives," not actual wishes to die (Hillman, 1977). When Jim Jones and about 914 of his People's Temple followers committed suicide in 1978 in Guyana, South America, Jones had "eschatological" ideas: He thought that the "end of days" was approaching and that the world as we know it was being transformed. He did not think that he and his followers were suiciding, but rather were changing into another type of spiritual life. A similar case was the Heaven's Gate suicide of 39 people on March 26, 1997. The leader of this group, Marshall Applewhite, said that they were undergoing "Chrysalis"—not dying but changing into something else, like a caterpillar becoming a butterfly. Here the idea is not biological cessation as much as it is spiritual transformation. In Theravada Buddhism, the physical body is not considered to be the true self, and through asceticism and yoga it must be renounced to achieve *nirvana*. A similar concept to *nirvana* in classical Hinduism is *moksha*.

Finally, the wish to die is different from the inability to keep living. Linehan (2015) talks about "behavior trumping ideas": A person can wish to keep living but may essentially be unable to because of chronic self-destructive behaviors, which need to be changed.

Indirect Self-Destructive Behaviors

The vast majority of self-destructive behaviors do not result in a discrete suicide attempt or completion. Most self-destructive acts are partial, chronic, and long-term (Menninger, 1938; Farberow, 1980; Maris et al., 2000). Although these actions may contribute to shortening one's life expectancy, as in the case of choreographer and movie director Bob Fosse (Maris, 2015, p. 10), we must remember that completed suicide generally includes a clear intent to die. For example, most cigarette smokers just want to ingest nicotine, not to die, even though they know that their smoking may hasten their death.

As can be seen in Table 1.2, there are many types of behaviors that are not in themselves directly suicidal. They usually do not involve an explicit suicide attempt method, but can be self-destructive over time. Gambling is related to the fact that Las Vegas has the highest suicide rate of any other city in the United States. Gambling is also related to depression, alcohol abuse, and financial problems. Risky sports include race car driving, climbing icy mountains, whitewater rafting, and the like (Klausner, 1968). Many people die under circumstances involving excessive drinking and/or opiate abuse (consider the current epidemic of opioid overdose in the United States). Among celebrities, one thinks of the drug-abuse-related deaths

TABLE 1.2. Indirect Self-Destructive Behaviors

- Pathological gambling
- Risky sports (racing cars, mountain climbing, white water canoeing, etc.)
- Chronic alcohol or substance abuse (especially opiates, cigarettes)
- Dangerous driving (especially while intoxicated)
- Russian roulette
- Unprotected, indiscriminate sexuality
- Obesity or anorexia nervosa
- Self-mutilation, body piercing, excessive tattooing
- Fighting, war

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of Philip Seymour Hoffman in 2014, John Belushi in 1982, Elvis Presley in 1977, Janis Joplin in 1970, and many others.

Driving while intoxicated is the number one cause of teenage death, and committing other risky acts under the influence of alcohol or drugs is all too common in this age group. One of my first forensic cases was the intoxication-related death of the son of Dan Chandler and grandson of "Happy" Chandler (a former commissioner of baseball and governor of Kentucky). The grandson had been using cocaine on spring break while watching the movie *Bugsy* about mobster Bugsy Segal, in which Segal plays Russian roulette and survives. He said to his girlfriend, "I can do that," took five of six cartridges out of his .38, spun the cylinder, and promptly shot himself in the head. The family hired me to argue to the medical examiner that there was an 83% chance he would survive, and that the death could be legally ruled an accident. When I brought this up to the medical examiner, he took out a .357 from his desk drawer, put in one bullet, spun the chamber and handed it to me, and said, "Put it to your head and pull the trigger, if you do not think this is suicide."

Indiscriminate sexuality has many self-destructive consequences (Maris, 1972), such as HIV/AIDS and other sexually transmitted diseases—think of former NBA player Magic Johnson. Promiscuity also decreases the chances that a person will have a significant other available when one is needed. For instance, Wilt Chamberlain (also formerly of the NBA) boasted of thousands of lovers, but how can he "be there" for so many partners or they for him?

Most people fail to realize that anorexia nervosa has the highest death rate of any psychiatric disorder. As many as 20% of those with the disorder are dead after about 20 years. One study claimed that persons with anorexia had a death rate 12 times that of those without it. Self-mutilation, excessive tattooing, and body piercing can also be self-destructive. Persons with borderline personality disorder have a penchant for repeated self-cutting. Many felons in jails and prisons are heavily tattooed. There is even a trend toward considering tattoos as fine art: A few persons with exquisite upper-body tattoos have given their consent to be skinned at death and have their skins mounted in frames for posterity (Randall, 2013).

Finally, war and fighting are probably (see Chapter 20) related to increased suicide risk. I have now testified in about a dozen cases of military veteran suicide, most alleged to be related to posttraumatic stress disorder (PTSD). I have addressed the U.S. Congress about this serious problem (Maris, 2008). Finally, do not forget that most suicides are mixed types (Maris et al., 2000).

Definition of Suicide

Now we know that suicide is not just one thing. But how exactly do we define it (Shneidman, 1985)? The word *suicide* in English and French derives from the modern Latin *suicidium* (1651). *Sui* means "of oneself," and *cidium* means "a killing." The idea that an act of suicide is intentional self-murder, and that persons who are suicides kill themselves deliberately, probably first occurred in 1728. The German word for suicide is *selbstmord* ("self-murder" or "self-death"). In Anglo-Latin legal terminology, suicide was called *felo-de-se* (literally "one guilty concerning himself"; Maris, 1993).

According to philosopher David Mayo (1992, 2015), suicide has four basic elements:

- 1. A death has occurred.
- 2. The death must be of one's own doing.
- 3. The ending of life was intentional.
- 4. The agency of death was active (but occasionally passive).

Let us reflect on each of these four elements.

1. Medically or legally, when a death occurs, the medical examiner or coroner has four choices as to how to certify the manner of death: *natural, accidental, suicidal,* or *homicidal* (these choices are sometimes called the *NASH* classification of death). The manner of death can also be labeled *pending* or *unknown*. The *cause,* or what produced the death, and the *manner* of death are different. Unfortunately, we cannot be certain what criteria medical examiners or coroners may use to determine suicide. For example, do they require a suicide note? The fact remains that to have a bona fide suicide, someone must have died. It is amazing how many scientific articles and books on suicide have been written, but are based on samples without a single actual completed suicide in them (Maris et al., 2000).

If a person dies by someone else's hands, then the death is likely some kind of homicide (or a wrongful death related to medical malpractice). Often contact gunshot wounds (GSWs) indicate suicides, but noncontact GSWs may be homicides or accidents (other things being equal). If a virus, bacteria, or disease kills a person, then the death is natural.

2 and 3. To oversimplify, death can be seen as one of the following:

- Intentional (suicidal).
- Unintentional (accidental).

- Nonintentional (natural).
- Contraintentional (homicidal).

However, since human intention is not pure or constant, determining intentionality can get complicated. People can have both a wish-to-die and a wish-to-live at the same time (i.e., they may be ambivalent). How dominant or pure does the wish-to-die have to be in order for a suicide to occur? Does the suicide wish have to be 100%? Can a suicide wish versus a life wish be 75–25% and the death still be a suicide? Can it even be 51–49%? After all, even most suicide completers have some ambivalence about dying.

4. Suicides are usually active and direct. For example, a person loads a revolver, places it at the temple or puts it in the mouth, and then pulls the trigger. However, some suicides are passive or indirect. Examples might include failing to take life-saving medicine (like insulin) or get life-saving surgery (perhaps for breast or prostate cancer), or failing to move from the path of an oncoming train, bus, or truck. There is also so-called "suicide by cop" when a person provokes a police officer, fully intending for the officer to shoot and kill the provoker.

Edwin Shneidman wrote an entire book just about the definition of suicide (Shneidman, 1985). In that book, he concluded: "Currently in the Western world, suicide is a conscious act of self-induced annihilation, best understood as a multidimensional malaise in a needful individual who defines an issue for which the suicide is perceived as the best solution."

Let's consider some of the ingredients in Shneidman's definition.

1. "Currently in the Western world": Although the word suicide itself has a timeless essential meaning, suicide has had different connotational nuances in different parts of the world at different times in history. For example, in Chapter 18 I discuss the case of the legendary Greek warrior Ajax, who fell on his sword out of shame during the Trojan War, as depicted on a vase dating back to 540 B.C. By contrast, in the late 20th century in the United States, musician Kurt Cobain's suicide was related to heroin abuse, attention-deficit/hyperactivity disorder (ADHD), and depressive disorder. In ancient India, the concept of *suttee* mandated that a deceased man's widow immolate herself on his funeral pyre. Probably in very ancient civilizations there was not even a word for suicide, given its rarity.

2. *a conscious act*": Shneidman argues that suicides are a malfunction (catabolic) of our minds, not of our brains. For example, suicidal individuals often have dichotomous, rigid thinking, which leads them to faulty, unnecessary conclusions (such as the need to suicide). When most such persons suicide, they basically know what they are doing and want the outcome.

3. "a multidimensional malaise": Malaise means an indefinite feeling of debility often preceding the onset of impending illness—a kind of vague funk or *ennui*. Something is perceived as profoundly wrong, but we really cannot understand it. A lot of depressed people suffer from malaise and *ennui*, but are not technically "sick." Since suicide is multifaceted, its etiology is multi-causal and complex. Suicide is a combined, interactive product of physical, neurobiological, psychological, psychiatric, and social forces, etc.

4. "a needful individual": Notice that each suicide is idiosyncratic or idiographic. No one suicidal individual is exactly like any other. Following Henry Murray (1938), Shneidman claimed that most suicides had unmet (mainly social-psychological) needs or deficits, such as the needs for self-esteem and recognition, security, constancy and predictability, achievement, order, nurturance, and/or control.

5. *"an issue"*: For Shneidman, the dominant suicide issue was repeated, intolerable psychic pain, which he called "psychache (cf. Ducasse et al., 2018)." The most frequently prescribed drug in the United States is a pain medication, hydrocodone. Suicidal pain has both physical and psychic components.

6. "perceived as the best solution": Note that suicidal individuals' perception can be faulty, although not always. Is there an alternative short of suicide that can produce the same result? Most suicides conclude that their pain and suffering are inextricably intertwined with being alive under the best of circumstances (Maris, 1982). Thus, they conclude that the best and perhaps only real solution is to stop living (Shneidman said that *only* is the "four-letter word" in suicidology). All alternative solutions, such as psychiatric medications, psychotherapy, love, money, or religion, are seen as ultimately ineffective. Suicide is viewed as a solution to a problem, but unfortunately the problem may be life itself.

One final caveat: Shneidman's definition of *suicide* really tends to be an explanation, which definitions should not be. We should define something first, then explain it.

Family History and Suicide

Can suicide be genetic, contagious, or modeled after? Is biology destiny? Exactly what do suicides inherit or copy from their families? In this brief final section of this chapter, Figure 1.3 depicts a partial family history of Ernest Hemingway, showing the mental disorders and suicidality of his close relatives. A similar figure for the novelist Virginia Woolf, who also committed suicide, is provided by Jamison (1993). The key in the lower left corner of Figure 1.3 gives the symbols used for suicide and mental disorders. Men are represented by squares and women by circles. In a family tree such as Figure 1.3, usually just first-degree relatives are included (mother, father, siblings, and children). Some aunts, uncles, cousins, nephews, and nieces may also be included if they have clear suicidality or mental disorders.

For example, Hemingway had four suicides in his immediate family (his father, sister, brother, and Ernest himself). Although not depicted in Figure 1.3, Hemingway's granddaughter Margaux Hemingway (a daughter of his son John) suicided at age 41 on July 1, 1996. Several of the Hemingways also had bipolar disorder. Virginia Woolf (who drowned herself) had recurrent depression, bipolar disorder, and cyclothymia in her family tree, but she was the only completed suicide.



FIGURE 1.3. Partial family history of Ernest Hemingway. *Source:* From *Touched with Fire: Manic–Depressive Illness and the Artistic Temperament* by Kay Redfield Jamison. Copyright © 1993 Kay Redfield Jamison. Reprinted with permission of The Free Press, a division of Simon & Schuster, Inc. All rights reserved.

Here is some additional food for thought:

- Eleven percent of the suicide completers in my Chicago study had suicide in their first-degree families of origin, but none of the natural death controls did (Maris, 1981).
- Family suicide outcomes may be genetic (Roy & Linnoila, 1986: Mann & Currier, 2012) or involve modeling (Phillips et al., 1992).
- Suicides and mood disorders tend to run in families (like Hemingway's).
- An Amish study (Egeland et al., 1987) found that bipolar disorder and suicides were both related to a shared defective narrow portion of chromosome 11.
- From 10 to 18% of alcoholics eventually commit suicide (Roy & Linnoila, 1986; Murphy, 1992).
- Seventy-two percent of suicides in a study in St. Louis (Robins, 1981) were either depressed (47%) or alcoholic (25%). No other single risk factor was present in more than 5% of the St. Louis suicides.
- The fact that a person has a "suicidogenic" family tree does not mean that he or she is doomed to suicide. Eleven percent of family suicides is not even close to 100%.

- Suicides in the Chicago study had a slight tendency to be first-borns (Maris, 1981).
- Early object loss (especially in year 1 to 2 of life) through death or divorce of a parent was more common in the families of suicides than in the families of natural death controls (Maris, 1981, p. 98).
- Suicidal females tended not to be as close to their fathers as nonsuicidal females were (Maris, 1981).
- The problems most prevalent in suicides were exactly those problems present in their families of origin (Maris, 1981).
- First-degree relatives of psychiatric patients have a suicide risk almost eight times higher than the risk in relatives of normal controls (Tsuang, 1983).

er chapt ion for suice Guilthoo Goowingth I discuss the various questions raised here in later chapters of this book. In Chapter 2, I continue laying the theoretical foundation for suicidology.

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