

---

# Nomenclature and Definition of Suicidal Behavior

# 1

Lucas Giner, Julio A. Guija, Christopher W. Root,  
and Enrique Baca-Garcia

---

## Abstract

Today we understand suicidal behavior as a spectrum of actions and thought processes. This framework is the result of centuries of thought and study on the subject. This chapter will provide a historical context for attempts to classify and understand the various manifestations of suicidal behavior. This chapter traces the evolution of the study of suicidal behavior from the first appearances of the word “suicide” in text up to the present state of our conceptualization. Various models for classifying suicidal behavior will be described. This chapter aims to provide the reader with a thorough understanding of both the historical and the contemporary definitions of the terms suicidal behavior, suicide, suicide attempt, and suicidal ideation. The impact of the theories of a diverse group of thinkers will be discussed, especially the framework described in the DSM-5. Multiple contemporary and historic diagnostic criteria will be described, as well as the intersections of suicidal behavior and other mental disorders.

---

L. Giner, MD, PhD (✉)

Department of Psychiatry, University of Seville, Seville, Spain

e-mail: [lginer@us.es](mailto:lginer@us.es)

J.A. Guija, MD, PhD

Service of Psychiatry, Institute of Legal Medicine of Seville, Seville, Spain

Department of Psychiatry, University of Seville, Seville, Spain

e-mail: [guija@us.es](mailto:guija@us.es)

C.W. Root, BA

Emergency Medical Services Department, New York Presbyterian Hospital, New York, NY, USA

e-mail: [chr9083@nyp.org](mailto:chr9083@nyp.org)

E. Baca-Garcia, MD, PhD

Department of Psychiatry, Jimenez Diaz Foundation, Autonoma University, IIS, CIBERSAM, Madrid, Spain

Department of Psychiatry, New York State Psychiatric Institute, New York, NY, USA

e-mail: [eb2452@columbia.edu](mailto:eb2452@columbia.edu); [ebacgar2@yahoo.es](mailto:ebacgar2@yahoo.es)

© Springer International Publishing Switzerland 2016

P. Courtet (ed.), *Understanding Suicide: From Diagnosis*

*to Personalized Treatment*, DOI 10.1007/978-3-319-26282-6\_1

The tremendous impact of suicide is clear when one considers the high number of suicides that occur annually across the globe and the consequences that accompany suicide. These consequences have been studied from various clinical, economical, statistical, and public health perspectives. The objective of this chapter is to provide the reader a theoretical and conceptual approach to the study of suicidal behavior. The following pages will attempt to catalog the evolution of our understanding of suicidal behavior both nosologically and philosophically and to discuss the current state of our understanding.

---

## 1.1 History of the Conceptualization, Definition, and Classification of Suicidal Behavior

The neologism suicide first appeared in the seventeenth century. It comes from the Latin words *sui* and *occidere*. Some cite Brown as the first using the word in the 1635 edition of *Religio Medici*, but others say the word was first used by Charleton in 1651. Some French historians credit its first use to either the Abbé Prevot in 1734 or the Abbé Desfontaines in 1737. Officially the word entered the dictionary of the French academy in 1762 and the English language dictionary, Blount's *Glossographia*, in 1656.

The term suicide has had several distinct meanings. Esquirol, for example, felt suicide was an act that could take place in a moment of madness, using madness in a sense similar to folie. In the introduction of his book *Le suicide*, Durkheim defined it as "all types of death that result, directly or indirectly, from an act, positive or negative, committed by the victim himself, knowing full well the intended result." Durkheim further defined a suicide attempt saying, "an attempt is the same act that we have defined, stopped at some point along its path before it was able to result in death" (Durkheim 1982). For his part, Freud understood suicide according to his psychoanalytical theory as a murder in reverse. Lacan saw suicide as a displacement of the object of aggression; before the impossibility of releasing it upon the other, it is released upon oneself.

For centuries there have been many distinct approaches to the conceptual problem of suicide. Initially religious and philosophical approaches predominated. From a scientific standpoint, it was sociology that initiated the study and conceptualization of suicide throughout Europe in the fourteenth century: Morselli in Italy; de Masaryk in Austria; Guerry, Étoc-Demazy, and Lisle in France; Winslow in England; and Casper, Müller, and Wagner in Germany. The seminal work on the topic is recognized to be Emile Durkheim's *Le Suicide*, published in 1897. Durkheim classified the act of suicide according to the grade of social integration of the individual and the social regulation of individual desires. In his classification, he distinguished three types of suicide: egoistic suicide, altruistic suicide, and anomic suicide. Since then, other authors have continued to define suicide from a sociological perspective. Halbwachs stands out for his work, *The Causes of Suicide*, in which he compared the differences in suicidal behavior between urban and rural societies (Halbwachs 1930). The social theory is best summarized by the idea that social disorganization produces individual disorganization (Uña Juárez 1985).

Psychoanalytic theory also made inroads into the conceptualization of suicide. Freud was the first to highlight ambivalence in suicide. He also noted the importance of aggression, relating it to homicide through the allure of death (Rodriguez Pulido et al. 1990). To a still greater extent along these lines, Menninger's work *Man Against Himself* (Menninger 1972) identifies three aggressive elements in the act of suicide: killing, being killed, and dying. According to these, the suicidal impulse can be subdivided into the wish to kill, the wish to be killed, and the wish to die. Afterward, Hendin identified six motives for suicide attempts (Hendin 1963): retaliatory abandonment, retroflected murder, reunion with a loved one, rebirth of the self after death, self-punishment, and seeing oneself as already dead.

Until the end of the 1960s, suicide attempts were considered failed suicides; therefore, suicide and suicide attempt were considered parts of the same psychiatric subset. In light of this, some European authors introduced terms with the objective of formalizing and describing the study of the act of attempting suicide. Among these new terms were parasuicide (Kreitman et al. 1969), pseudosuicide (Kessel 1965), and deliberate self-harm (Morgan 1979). These terms originate from a psychological orientation toward death. The objective of these acts is to produce the subject's desired change by way of the actual or desired consequences of his actions (Kreitman et al. 1969). In general, American authors use the term "suicide attempt" and European authors use the terms "deliberate self-harm" and "parasuicide."

The definitions of suicide have evolved toward more operative conceptions. Shneidman stated that "Suicide is an intended act of self-inflicted cessation." Similarly Motto wrote: "Suicide is self-inflicted, self-intentioned death." In 1988 the Center for Disease Control (CDC) developed a series of terms to designate suicidal behaviors called "Operational Criteria for the Determination of Suicide" (OCDS) which defined suicide as "death as a result of an intentional, self-inflicted harm." It recognized three components: death by harm, acts against oneself, and intentionality. This initiative has given rise to other criteria that rest on concepts of self-infliction (ascertainment of the existence of self-provoked injuries by the subject) and intention (implicit or explicit evidence of a conscious decision or desire to kill oneself) (Operational criteria for determining suicide 1988).

This idea opened the possibility that suicidal behavior was not homogenous and that the definition ought to move toward a classification system. As such, in the classifications of suicidal behavior, we can find the causes, the intentionality, and the consequences. In 1986, the WHO, following this conceptualization, avoided the terms "suicide" and "suicide attempt" and instead used the collective "suicidal acts." Within this framework, suicide is described as "an act with a fatal outcome which the deceased, knowing or expecting a fatal outcome had initiated and carried out with the purpose of provoking the changes he desired." A suicide attempt was described as "an act with a nonfatal outcome in which an individual deliberately initiates a non-habitual behavior that, without intervention from others, will cause self-harm, or deliberately ingests a substance in excess of the prescribed or generally recognized therapeutic dosage, and which is aimed at realizing changes which the subject desired, via the actual or expected physical consequences" (World Health Organization 1986).

Since then there have been numerous attempts to classify suicidal conduct from a theoretical perspective. Initially Hyman (1990) proposed a basic classification to describe what can be observed clinically. He divided subjects with suicidal behavior in terms of the behavior itself. He stated that, there are those deaths attributed to or suspected of being suicide; subjects that survive a suicide attempt; subjects that seek treatment for suicidal ideas or impulses; subjects that seek treatment for other causes, but admit to suicidal ideas or impulses; and subjects that deny suicidal intent, but whose behavior seems to demonstrate the potential for suicide to the observer or relatives. Since then other classifications have been published, among which the proposals of Marris and Diekstra stand out. Maris (1992) proposed three axes for classifying the type of suicidal behavior. Axis I specifies the type of behavior (ideation, attempt, or suicide). Axis II is for recording characteristics secondary to the act such as the medical lethality, the intentionality, the circumstances, the method, sex, age, race, marital status, and occupation. Finally, Axis III measures the presence or absence of chronic, indirect, self-destructive behavior (substance abuse, previous self-mutilation, or eating disorders). That same year, Diekstra proposed a classification system to classify suicidal behavior as either suicide, suicide attempts, or parasuicide (Diekstra 1992). Yet another attempt at classification is based in a cluster analysis of different populations with distinct patterns of suicidal behavior. The most impactful of these classification efforts have sought to group the similarities in completed suicides from the 1970s to the present. From these studies, three groups were identified: those with little suicidal intention comprised of young women, another comprised of older men with suicide attempts characterized by a high degree of violence and intentionality, and a third group intermediate between the two in terms of composition (Bagley et al. 1976; Kiev 1976; Paykel and Rassaby 1978; Rapeli and Botega 2005; Sinyor et al. 2014). A more modern analysis utilizes data mining, which requires older samples and seems to offer promising results (Oquendo et al. 2012) on the subject of suicidal behavior (Kuroki 2015).

---

## 1.2 Current Definitions of Types of Suicidal Behavior

Presently, the WHO defines suicide as the act of deliberately killing oneself and suicide attempt as “any non-fatal suicidal behavior and refers to intentional self-inflicted poisoning, injury or self-harm which may or may not have a fatal intent or outcome.” Therein, the WHO also specifies that nonfatal self-harm without suicidal intent is included. The WHO explains that this is because of the problem of evaluating suicidal intentionality due to ambivalence or even concealment on the part of the patient. On the other hand, suicidal behavior can be “a range of behaviors that include thinking about suicide (or ideation), planning for suicide, attempting suicide and suicide itself” (World Health Organization 2014).

The DSM-5 defines suicidal ideation as “thoughts about self-harm, with deliberate consideration or planning of possible techniques of causing one’s own death,” defines suicide as “the act of intentionally causing one’s own death,” and defines suicide attempt as “an attempt to end one’s own life, which may lead to one’s death.”

Likely the most complete classification is that of O'Carroll et al. (1996). O'Carroll proposed a nomenclature for the most basic epiphenomena of suicidal behavior through a clear and unambiguous definition. Initially they distinguished three large groups: suicidal ideation, behavior related to suicide, and completed suicide (Table 1.1). Later, they also came to consider self-inflicted wounds (with unknown intention) and behaviors with the intention of dying. Within each group they distinguish the result of the said behavior following the existence and gravity of the wounds. This nomenclature, proposed by O'Carroll et al., has been utilized in numerous studies and to develop the Columbia Classification Algorithm for Suicide Assessment (C-CASA) (Posner et al. 2007).

In critiquing these classifications, Barber and his colleagues called attention to aborted suicide attempts, which he defined as a first step to a suicide attempt in which the act is not completed, and therefore physical harm does not occur (Barber et al. 1998). They defined the characteristics of this behavior as having the intention of killing oneself but changing one's mind at the last moment before committing the act, along with the absence of physical injury. Later, Silverman et al. made an important revision (Silverman et al. 2007a, b) to this classification. In addition to factoring intentionality into the classification, they added a type of suicidal behavior, known as suicidal communication. This act can be verbal or nonverbal and can be defined as threatening suicide (possible suicidal behavior in the near future) or as a suicide plan (a proposed method for possible suicidal behavior) (Tables 1.2).

Presently, the DSM-5 includes suicidal behavioral disorder and nonsuicidal self-injury in Section III of the manual. Section III includes clinical situations that require a more in-depth investigation to determine if a formal diagnosis of a mental disorder should be considered along with a proposed set of diagnostic criteria (Table 1.3). Throughout the DSM-5 numerous disorders are described as being associated with suicide. However, there are disorders for which the epigraph specifically references the risk for suicide, such as schizophrenia, schizoaffective disorder, psychotic disorder due to another medical condition, bipolar I disorder, bipolar II disorder, major depressive disorder, disruptive mood dysregulation disorder, substance/medication-induced depressive disorder, depressive disorder due to another medical condition, separation anxiety disorder, specific phobia, panic disorder, obsessive-compulsive disorder, body dysmorphic disorder, posttraumatic stress disorder, dissociative identity disorder, dissociative amnesia, anorexia nervosa, bulimia nervosa, other hallucinogen intoxication, and opioid use disorder. Likewise this epigraph regarding risk of suicide is included for various disorders within Section III including depressive episodes with short-duration hypomania, persistent complex bereavement disorder, and neurobehavioral disorder associated with prenatal alcohol exposure.

The DSM-5 outlines two forms of psychopathological evaluation that evaluate suicidal ideation and suicide attempts concretely, one for the adult population and one for those between 6 and 17 years of age. The adult DSM-5 self-rated Level 1 Cross-Cutting Symptom Measure has 13 domains, among which Domain VI indicates suicidal ideation. The parent/guardian-rated DSM-5 Level 1 Cross-Cutting Symptom Measure for children aged 6–17 has 12 domains, among which Domain XII explores suicidal ideation/suicide attempt.

As it does with other disorders, the DSM-5 has included specifiers. Under suicidal behavior, these specifiers relate to the violence of the method employed, the



**Table 1.2** Nomenclature suicide-related thoughts and behaviors de Silverman et al. (2007a)

Suicide-Related Ideation		Suicide-related Communications***			Suicide-Related Behaviors***			
		Intention to suicide			Intention to suicide			
Intention to suicide	No ?   Yes	No	?	Yes	Outcome	No (Self-harm)	?	Yes (Suicide Attempt)
casual								
(2) transient		Suicide Threat*	Type I	Type II	Type III	Type I	Type I	Type I
(3) passive		Suicide Plan**	Type I	Type II	Type III	Type II	Type II	Type II
(4) active								
(5) persistent								
					Death	Self-Inflicted Unintentional Death	Self-Inflicted Death with Undetermined Intent	Suicide

\*Suicide Threat: verbal or nonverbal; passive or active

\*\*Suicide Plan: a proposed method of achieving a potentially self-injurious outcome

\*\*\*Additional Modifiers

- A. Intrapersonal focus—to change internal state (escape/release)
- B. Interpersonal focus—to change external state (attachment/control)
- C. Mixed focus

**Table 1.3** Suicidal behavior disorder proposed criteria in DSM-5

A. Within the last 24 months, the individual has made a suicide attempt
Note: A suicide attempt is a self-initiated sequence of behaviors by an individual who, at the time of initiation, expected that the set of actions would lead to his or her own death. The “time of initiation” is the time when a behavior took place that involved applying the method
B. The act does not meet criteria for nonsuicidal self-injury – that is, it does not involve self-injury directed to the surface of the body undertaken to induce relief from a negative feeling/cognitive state or to achieve a positive mood state
C. The diagnosis is not applied to suicidal ideation or to preparatory acts
D. The act was not initiated during a state of delirium or confusion
E. The act was not undertaken solely for a political or religious objective
Specify if:
Current: not more than 12 months since the last attempt
In early remission: 12–24 months since the last attempt

medical consequences, and the degree of planning involved. The specifiers also account for possible cultural differences and the functional consequences of the act, which the clinician should remember to consider.

### 1.3 Suicidal Behavior as a Symptom, Syndrome, Complication, Disorder, or Diagnostic Axis

From the psychiatric point of view, suicidal behavior has been conceptualized variously as a symptom, a syndrome, a complication of a psychiatric illness, a psychiatric disorder, or a diagnostic axis.

As a symptom, suicidal behavior is present in various mental disorders. The diagnostic criteria for major depression include thoughts of suicide, and a history of suicide attempts is among the criteria for borderline personality disorder. In a somatic context, there are certain incapacitating and/or painful medical pathologies in which thoughts of suicide are common. Along these lines, the evaluation and treatment of suicide risk should be considered a secondary feature of the pathology that is causing it. As such, when the mental disorder or medical pathology improves, the suicidal ideation should improve as well. This vision of suicidal behavior does not permit a treatment or prevention plan unless it is incorporated into the treatment of the causative illness. It also assumes a parallel evaluation, without taking into account the specifics of the presenting subject. Furthermore, we are left without adequate consideration of much of what is now known about suicidal behavior, such as the recognized heritability of suicidal behavior independent of mental disorder.

The presuicidal syndrome, described by Riegel in 1958, was based on a specific psychological state (Ringel 1976). In this state preceding suicide, three aspects are present: constriction, inhibited aggression turned inward toward the self, and suicidal fantasies. This syndrome is characterized by a narrowing and diminishing of



the psychic life in general, along with the inhibition of aggressive impulses. At the same time, the desire for death and self-destructive fantasies begin to develop.

From another point of view, Pöldinger understood that the appearance of the act of suicide would develop secondary to an underlying disease or coincide with the onset of that disease. The chief among these underlying diseases are depression, schizophrenia, and alcoholism (Pöldinger 1983). In this state there can be a depressive affect, with hopelessness and anhedonia owing to depressive symptoms that can be combined with the fatal intentionality described by Klerman (1987). The evolution of suicidal ideation and its transition into action depends on the precipitating disease and the individual history. As such the action can take an impulsive, planned, or ambivalent form (Pöldinger 1983). Factors influencing the precipitation of suicidal behavior may include concurrent psychosocial events along with biological and genetic factors (Pöldinger and Holsboer 1989). Shneidman interprets the evolution from suicidal ideation to the act of committing suicide in cognitive terms, basing it in what he calls suicidal logic. According to the threefold model he proposed (Shneidman 1976), a suicidal person experiences an unbearable psychogenic pain or suffering, a negative pressure of lived experiences, and a state of perturbation. The development of suicidal behavior will continue to surge from these three planes. Frustrated with the need to bear his continued suffering, the individual considers himself in the context of previous experiences, with a negative effect on the individual, and moves toward a state of rigid and dichotomous reasoning. The result is an unbearable suffering with inability to see other possibilities or solutions to his problems. This is how the presuicidal state evolves into suicidal act.

Suicide has also been understood as a complication of a mental illness. Presently more than 90 % of subjects that exhibit suicidal behavior also present with comorbid mental disorders, including personality disorders. Nonetheless, the presence of mental illness is not on its own sufficient to predict self-destructive behavior. Clearly, 10 % of subjects who present with suicidal behavior present with no other mental illness. However, it is important to consider that this 10 % figure is taken from western cultures. In China, for example, this figure approaches 60 % (Phillips et al. 2002). This figure also does not correspond to the clinical gravity or intrinsic severity of each pathology.

According to the DSM-IV, a mental disorder is a behavioral or psychological pattern of clinical significance that, whatever its cause, manifests itself in the individual in the form of a behavioral, psychological, or biological dysfunction. This manifestation is considered a symptom when it appears to be associated with discomfort, disability, or a significantly elevated risk of death, suffering, disability, or loss of liberty. Although mental illness and suicide are closely linked, suicidal behavior is not present in all subjects that suffer from a psychiatric pathology. In fact, it is only present in a minority of cases. For example, only one third of patients with bipolar disorder attempt suicide at some point in their life (Chen and Dilsaver 1996). In light of this, suicidal behavior cannot be considered an intrinsic characteristic of mental pathology (Oquendo and Baca-Garcia 2014).

Given the lack of findings based on diagnostic exams, Robins and Guze (1970) established widely accepted criteria delineating psychiatric illness based on clinical

**Table 1.4** Validators to be used in the DSM-5 process (Kendler et al. 2009)

<i>I. Antecedent validators</i>	
A.	<sup>a</sup> Familial aggregation and/or co-aggregation (i.e., family, twin, or adoption studies)
B.	Sociodemographic and cultural factors
C.	Environmental risk factors
D.	Prior psychiatric history
<i>II. Concurrent validators</i>	
A.	Cognitive, emotional, temperament, and personality correlates (unrelated to the diagnostic criteria)
B.	Biological markers, e.g., molecular genetics, neural substrates
C.	Patterns of comorbidity [note – while categories A and B would most typically be assessed after illness onset, they also could be assessed prior to illness onset as premorbid characteristics]
<i>III. Predictive validators</i>	
A.	<sup>a</sup> Diagnostic stability
B.	<sup>a</sup> Course of illness
C.	<sup>a</sup> Response to treatment

<sup>a</sup>Highest priority and greatest emphasis in decisions about the overall validity of diagnosis

description, laboratory studies, shadowing patients, and family interviews. Later, Krishnan (2005) condensed these criteria into two: the risk of incapacitation or death and the presence of environmental, pathological, or genetic factors. In cases where the second criterion is insufficient, the diagnosis can be based on the prognostic course, family history, and/or response to treatment.

Oquendo and Baca point out (2014) that suicidal behavior meets the criteria for a psychiatric diagnosis in Guidelines for Making Changes to DSM-5 (Kendler et al. 2009). That is (a) a behavioral or psychological syndrome or pattern that occurs in an individual, (b) associated with clinically significant distress or disability, (c) diagnostically valid, (d) clinically useful, and (e) reflective of an underlying psychobiological disturbance. Furthermore, the diagnosis cannot simply be a manifestation of social deviance or conflicts with the society. Oquendo and Baca also required three validators: antecedent validators, concurrent validators, and predictive validators (Table 1.4) (Regier et al. 2013). Following the reasoning of Oquendo and Baca, suicidal behavior fulfills four categories of antecedent validators, two categories of concurrent validators, and three categories of predictive validators. The authors express concern regarding only one of the categories of predictive validators, diagnostic stability, though they argue that diagnostic stability is highly variable between mental disorders and the same is true for suicidal behavior, which can range from just one attempt to multiple attempts or even completed suicide. In terms of diagnostic fallibility, the definition used in the Classification Algorithm for Suicide Assessment (C-CASA) (Posner et al. 2007) and the Columbia-Suicide Severity Rating Scale (C-SSRS) (Posner et al. 2011) demonstrates an inter-rater reliability coefficient (C-CASA) and a sensitivity and specificity (C-SSRS) above 95 %, respectively, for predicting suicide attempts.

Finally, considering suicidal behavior as a diagnostic axis, as they were established in the multiaxial diagnosis in the DSM-IV, favors the perspective that it

is a situation that can affect a majority of mental disorders. In practice this view also facilitates assessment of suicide risk remaining fixed within the evaluation of mental status. This helps complete future evaluations for suicide risk, as it is now known that previous suicidal behavior is the best predictor for suicide risk. In the actual classification of illnesses, suicidal behavior is only included as a symptom of depressive disorders and borderline personality disorder, as discussed earlier. It is absent among the recognized symptoms that may accompany other conditions with known risk of suicide, such as schizophrenia or alcohol and other substance abuse. What's more, in cases where risk of suicidal behavior is identified, this does not affect the diagnosis or emphasize the potential risk.

---

#### **1.4 Consideration of the Suicidal Spectrum for Its Classification**

Studies on the characteristics of suicidal populations (number of attempts, methods of completed suicide) observe that there is little specificity of the risk factors, owing in part to the heterogeneity of these populations (Innamorati et al. 2008). According to some authors, suicidal behavior should be defined for two different populations, differentiated by the intent to die, with some overlapping risk factors shared between them (Linehan 1986; Beautrais 2001). The questions then should be, “What is the relationship between these two populations?” “Are they two groups on a continuum depending on the severity of the behavior?” “Should they be best categorized as two distinct but related populations?” Some data exists to support each idea.

Following the first idea, a continuum from suicidal ideation to completed suicide, the severity of the clinical situation would determine the outcome of suicidal behavior. One could determine the position on the suicidal spectrum based on intentionality, though this poses a problem due to the ambivalence many subjects show in suicide attempts regarding outcome (Hendin 1963). When suicide attempts are divided on a three-point scale according to the intentionality of the attempt, one can observe a similarity between the group of maximum intentionality and those who actually complete suicide, something that is not observed with the group of lowest intentionality (Menninger 1972; Hendin 1950). Alternatively intentionality can be analyzed based on the results of the act; a sample of suicide attempts can be divided into those who had had a serious suicide attempt (based on the medical consequences) or violent suicide attempt (based on the method employed) versus those who had not had a violent or serious attempt. Those with violent or serious attempts share characteristics with the population who complete suicide, such as a higher percentage of males, a history of prior attempts, a family history of suicidal behavior, and advanced age (Giner et al. 2014).

In the 1980s Linehan (1986) distinguished two types of populations with suicidal behavior according to the intensity of the intent. There are certain social and demographic differences between the populations that have attempted suicide and those that have completed suicide. Those who complete suicide are more likely to be male

and are typically of a more advanced age than those who survive a suicide attempt (Tuckman and Youngman 1963; Fushimi et al. 2006). Clinically, differences can also be observed between suicides and suicide attempts (Innamorati et al. 2008; Gladstone et al. 2001; Holmstrand et al. 2006; Giner et al. 2013), even though they may not be apparent in younger patients (Beautrais 2003; Brent et al. 1988). Beautrais (2001) continued this theory regarding the existence of two distinct but overlapping groups within the continuum of suicidal behavior. For her, both populations shared certain risk factors. This idea is supported by a study conducted with two clinical groups and one control group ( $n=984$ ). The first group consisted of 202 subjects who completed suicide and the second of 275 subjects who had survived a suicide attempt. The data collection was accomplished using the same methodology employed in psychological autopsies.

The results indicated that attempted suicides of high lethality were similar to completed suicides in regard to mood, prior suicide attempts, outpatient psychiatric treatment, and psychiatric admission in the previous year. The precipitating events were typically classified as problems of an interpersonal, legal, or occupational nature. Nonetheless, differences did exist between the two groups. The group that completed suicide had a high percentage of men, subjects of advanced age, and a higher prevalence of a non-affective psychiatric diagnosis. The suicide attempt group showed a larger proportion of diagnosed anxiety disorder and socially isolated individuals. The diagnosis of anxiety disorder was particularly frequent among those adolescents with more than one suicide attempt compared to those with only one prior attempt (Pagura et al. 2008).

This differential vision can be criticized in light of the fact that the most significant risk factor for completion of suicide is a previous suicide attempt (Mann et al. 2005; Nordstrom et al. 1995; Tejedor et al. 1999; Suokas et al. 2001; Suominen et al. 2004; Gibb et al. 2005). It is estimated that between 10 and 20 % of those who have attempted suicide will complete suicide eventually (Monk 1987). The relative risk of suicide between those with prior suicide attempt versus the general population is 66 (CI 95 % 52–82); in the first year it is 0.7 % (CI 95 % 0.6–0.9 %), increasing to 1.7 %, 2.4 %, and 3.0 % after 5, 10, and 15 years, respectively (Hawton et al. 2003).

There also exists the possibility of an intermediate approach. As Lester proposed (Lester 1987) among subjects with prior suicide attempts, there will be a subgroup with a tendency toward repeated attempts. This subgroup will be distinct in clinical presentation and social relationships from both those who complete suicide and those who attempt suicide only once or twice (Rudd et al. 1996). This idea is similar to the one described by Blasco-Fontecilla (2012) regarding the theory on the addiction to suicide (Tullis 1998).

---

## Conclusions

The classification of suicidal behavior has been an objective of study since the beginning of medicine and psychology. At present, despite an enormous quantity of studies from various perspectives, a definitive classification explaining suicidal behavior in its various incarnations has still not been achieved. The closest we have come would be a descriptive classification that includes intentionality as the

crucial factor. More studies are needed in which social, demographic, psychological, clinical, and biological characteristics of the subjects are compared according to presently accepted classifications in order to ascertain the validity of these classifications. Finally, including suicidal behavior as a nosological entity or diagnostic axis will promote research into unique characteristics within presentations of distinct evolutions and severity.

**Acknowledgments** The authors wish to acknowledge Samuel Aidan Kelly for his help in editing this chapter.

---

## References

- Bagley C, Jacobson S, Rehin A (1976) Completed suicide: a taxonomic analysis of clinical and social data. *Psychol Med* 6(3):429–438
- Barber ME, Marzuk PM, Leon AC, Portera L (1998) Aborted suicide attempts: a new classification of suicidal behavior. *Am J Psychiatry* 155(3):385–389
- Beautrais AL (2001) Child and young adolescent suicide in New Zealand. *Aust NZ J Psychiatry* 35(5):647–653
- Beautrais AL (2003) Suicide and serious suicide attempts in youth: a multiple-group comparison study. *Am J Psychiatry* 160(6):1093–1099
- Blasco-Fontecilla H (2012) The addictive hypothesis of suicidal behavior. *Med Hypotheses* 78(2):350
- Brent DA, Perper JA, Goldstein CE, Kolko DJ, Allan MJ, Allman CJ et al (1988) Risk factors for adolescent suicide. A comparison of adolescent suicide victims with suicidal inpatients. *Arch Gen Psychiatry* 45(6):581–588
- Chen YW, Dilsaver SC (1996) Lifetime rates of suicide attempts among subjects with bipolar and unipolar disorders relative to subjects with other axis I disorders. *Biol Psychiatry* 39(10):896–899
- Diekstra RF (1992) Epidemiology of suicide: aspects of definition, classification and preventive policies. In: Crepet P, Ferrari G, Platt S, Bellini M (eds) *Suicidal behaviour in Europe recent research findings*. John Libbey CIC, Rome, pp 15–45
- Durkheim E (1982) *El suicidio*. Akal Universitaria, Madrid
- Fushimi M, Sugawara J, Saito S (2006) Comparison of completed and attempted suicide in Akita, Japan. *Psychiatry Clin Neurosci* 60(3):289–295
- Gibb SJ, Beautrais AL, Fergusson DM (2005) Mortality and further suicidal behaviour after an index suicide attempt: a 10-year study. *Aust NZ J Psychiatry* 39(1–2):95–100
- Giner L, Blasco-Fontecilla H, Mercedes Perez-Rodriguez M, Garcia-Nieto R, Giner J, Guija JA et al (2013) Personality disorders and health problems distinguish suicide attempters from completers in a direct comparison. *J Affect Disord* 151(2):474–483
- Giner L, Jaussent I, Olie E, Beziat S, Guillaume S, Baca-Garcia E et al (2014) Violent and serious suicide attempters: one step closer to suicide? *J Clin Psychiatry* 75(3):e191–e197
- Gladstone GL, Mitchell PB, Parker G, Wilhelm K, Austin MP, Eyers K (2001) Indicators of suicide over 10 years in a specialist mood disorders unit sample. *J Clin Psychiatry* 62(12):945–951
- Halbwachs M (1930) *Les causes du suicide*. Alcan, Paris
- Hawton K, Zahl D, Weatherall R (2003) Suicide following deliberate self-harm: long-term follow-up of patients who presented to a general hospital. *Br J Psychiatry* 182:537–542
- Hendin H (1950) Attempted suicide; a psychiatric and statistical study. *Psychiatry Q* 24(1):39–46
- Hendin H (1963) The psychodynamics of suicide. *J Nerv Ment Dis* 136:236–244

- Holmstrand C, Nimeus A, Traskman-Bendz L (2006) Risk factors of future suicide in suicide attempters – a comparison between suicides and matched survivors. *Nord J Psychiatry* 60(2):162–167
- Hyman SE (1990) El paciente suicida. In: Hyman SE (ed) *Urgencias psiquiátricas*. Salvat, Barcelona, pp 19–26
- Innamorati M, Pompili M, Masotti V, Persone F, Lester D, Tatarelli R et al (2008) Completed versus attempted suicide in psychiatric patients: a psychological autopsy study. *J Psychiatry Pract* 14(4):216–224
- Kendler K, Kupfer DJ, Narrow W, Phillips K, Fawcett J (2009) Guidelines for making changes to DSM-V. Available at: [http://www.dsm5.org/ProgressReports/Documents/Guidelines-for-Making-Changes-to-DSM\\_1.pdf](http://www.dsm5.org/ProgressReports/Documents/Guidelines-for-Making-Changes-to-DSM_1.pdf) (visited 16th Mar 2015)
- Kessel N (1965) Suicide by poisoning. 1. Suicide and the survivor. *Nurs Times* 61:960–961
- Kiev A (1976) Cluster analysis profiles of suicide attempters. *Am J Psychiatry* 133(2):150–153
- Klerman GL (1987) Clinical epidemiology of suicide. *J Clin Psychiatry* 48(Suppl):33–38
- Kreitman N, Philip AE, Greer S, Bagley CR (1969) Parasuicide. *Br J Psychiatry* 115(523):746–747
- Krishnan KR (2005) Psychiatric disease in the genomic era: rational approach. *Mol Psychiatry* 10(11):978–984
- Kuroki Y (2015) Risk factors for suicidal behaviors among Filipino Americans: a data mining approach. *Am J Orthopsychiatry* 85(1):34–42
- Lester D (1987) *Suicide as a learned behavior*. Charles C Thomas, Springfield
- Linehan MM (1986) Suicidal people. One population or two? *Ann NY Acad Sci* 487:16–33
- Mann JJ, Apter A, Bertolote J, Beautrais A, Currier D, Haas A et al (2005) Suicide prevention strategies: a systematic review. *JAMA* 294(16):2064–2074
- Maris RW (1992) How are suicides different? In: Maris RW, Berman AL, Maltzberg JT, Yutif RI (eds) *Assesment and prediction of suicide*. Guilford, New York
- Menninger K (1972) *El hombre contra si mismo*. Península, Barcelona
- Monk M (1987) Epidemiology of suicide. *Epidemiol Rev* 9:51–69
- Morgan HG (1979) *Death wishes? The understanding and management of deliberate self-harm*. Wiley, Chichester
- Nordstrom P, Asberg M, Aberg-Wistedt A, Nordin C (1995) Attempted suicide predicts suicide risk in mood disorders. *Acta Psychiatr Scand* 92(5):345–350
- O’Carroll PW, Berman AL, Maris RW, Moscicki EK, Tanney BL, Silverman MM (1996) Beyond the Tower of Babel: a nomenclature for suicidology. *Suicide Life Threat Behav* 26(3):237–252
- Operational Criteria for Determination of Suicide Working Group, c/o Division of Injury Epidemiology and Control, Center for Environmental Health and Injury Control, CDC. (1988) *MMWR Morb Mortal Wkly Rep* 37(50):773–780 (<http://www.cdc.gov/mmwr/preview/mmwrhtml/00001318.htm>)
- Oquendo MA, Baca-Garcia E (2014) Suicidal behavior disorder as a diagnostic entity in the DSM-5 classification system: advantages outweigh limitations. *World Psychiatry: Off J World Psychiatric Assoc* 13(2):128–130
- Oquendo MA, Baca-Garcia E, Artes-Rodriguez A, Perez-Cruz F, Galfalvy HC, Blasco-Fontecilla H et al (2012) Machine learning and data mining: strategies for hypothesis generation. *Mol Psychiatry* 17(10):956–959
- Pagura J, Cox BJ, Sareen J, Enns MW (2008) Factors associated with multiple versus single episode suicide attempts in the 1990–1992 and 2001–2003 United States national comorbidity surveys. *J Nerv Ment Dis* 196(11):806–813
- Paykel ES, Rassaby E (1978) Classification of suicide attempters by cluster analysis. *Br J Psychiatry* 133:45–52
- Phillips MR, Yang G, Zhang Y, Wang L, Ji H, Zhou M (2002) Risk factors for suicide in China: a national case-control psychological autopsy study. *Lancet* 360(9347):1728–1736
- Poldinger W (1983) From the psychoreactive crisis to pre-suicidal development, to the problem of judging the risk for suicide. *Wien Klin Wochenschr Suppl* 145:10–13

- Poldinger WJ, Holsboer Trachsler E (1989) Psychopathology and psychodynamics of self destruction. *Schweiz Rundsch Med Prax* 78:214–218
- Posner K, Oquendo MA, Gould M, Stanley B, Davies M (2007) Columbia Classification Algorithm of Suicide Assessment (C-CASA): classification of suicidal events in the FDA's pediatric suicidal risk analysis of antidepressants. *Am J Psychiatry* 164(7):1035–1043
- Posner K, Brown GK, Stanley B, Brent DA, Yershova KV, Oquendo MA et al (2011) The Columbia-suicide severity rating scale: initial validity and internal consistency findings from three multisite studies with adolescents and adults. *Am J Psychiatry* 168(12):1266–1277
- Rapeli CB, Botega NJ (2005) Clinical profiles of serious suicide attempters consecutively admitted to a university-based hospital: a cluster analysis study. *Rev Bras Psiquiatr* 27(4):285–289
- Regier DA, Kuhl EA, Kupfer DJ (2013) The DSM-5: classification and criteria changes. *World Psychiatry: Off J World Psychiatric Assoc* 12(2):92–98
- Ringel E (1976) The presuicidal syndrome. *Suicide Life Threat Behav* 6(3):131–149
- Robins E, Guze SB (1970) Establishment of diagnostic validity in psychiatric illness: its application to schizizophrenia. *Am J Psychiatry* 126(7):983–987
- Rodriguez Pulido F, Gonzalez de Rivera y Revuelta JL, Gracia Marco R, Montes de Oca Hernández D (1990) El suicidio y sus interpretaciones teóricas. *Psiquis* 11:374–380
- Rudd MD, Joiner T, Rajab MH (1996) Relationships among suicide ideators, attempters, and multiple attempters in a young-adult sample. *J Abnorm Psychol* 105(4):541–550
- Shneidman ES (1976) *Suicidology: contemporary developments*. Grune & Stratton, New York
- Silverman MM, Berman AL, Sanddal ND, O'Carroll PW, Joiner TE (2007a) Rebuilding the tower of Babel: a revised nomenclature for the study of suicide and suicidal behaviors. Part 2: suicide-related ideations, communications, and behaviors. *Suicide Life Threat Behav* 37(3):264–277
- Silverman MM, Berman AL, Sanddal ND, O'Carroll PW, Joiner TE (2007b) Rebuilding the tower of Babel: a revised nomenclature for the study of suicide and suicidal behaviors. Part 1: background, rationale, and methodology. *Suicide Life Threat Behav* 37(3):248–263
- Sinyor M, Schaffer A, Streiner DL (2014) Characterizing suicide in Toronto: an observational study and cluster analysis. *Can J Psychiatry Rev Can Psychiatr* 59(1):26–33
- Suokas J, Suominen K, Isometsa E, Ostamo A, Lonnqvist J (2001) Long-term risk factors for suicide mortality after attempted suicide – findings of a 14-year follow-up study. *Acta Psychiatr Scand* 104(2):117–121
- Suominen K, Isometsa E, Suokas J, Haukka J, Achte K, Lonnqvist J (2004) Completed suicide after a suicide attempt: a 37-year follow-up study. *Am J Psychiatry* 161(3):562–563
- Tejedor MC, Diaz A, Castillon JJ, Pericay JM (1999) Attempted suicide: repetition and survival – findings of a follow-up study. *Acta Psychiatr Scand* 100(3):205–211
- Tuckman J, Youngman WF (1963) Suicide risk among persons attempting suicide. *Public Health Rep* 78:585–587
- Tullis K (1998) A theory of suicide addiction. *Sex Addict Compulsivity* 5:311–324
- Uña Juárez O (1985) Sociología del suicidio. Ampliaciones epistemológicas. *Psicopatología* 5(2):129–136
- World Health Organization (1986) Summary report, working group in preventative practices in suicide and attempted suicide. WHO Regional Office for Europe, Copenhagen
- World Health Organization (2014) Preventing suicide: a global imperative. WHO Press, Geneva