Gin S. Malhi: A critical Analysis of Psychiatric Concepts

Gin S. Malhi and Erica Bell: Make News - Suicidal Behavior Disorder: A "Diagnosis" with Good Intentions*

A condition for further study?

In section III, titled Emerging Measures and Models, DSM-5 (2013) has attempted something interesting and potentially useful. It has included eight *"Conditions for Further Study."* These conditions are captured in the form of "proposed criteria" and are intended to be the basis for future research; indeed, this is actively encouraged. The proposed criteria for these DSM-5 conditions are distilled essentially through expert consensus informed by whatever literature and data is available. The aim is 'to provide a common language for researchers and clinicians' interested in researching these conditions and for findings to be considered in future DSM revisions.

Showing uncharacteristic restraint, DSM-5 states that the current proposals did not warrant inclusion in Section II of the manual as "official mental disorder diagnoses" because of insufficient evidence and that the proposed criteria sets are not presently intended for clinical use. However, unlike some disorders that were added to Section II, Suicidal Behavior Disorder (SBD) does have evidence justifying its diagnosis and qualification is reliant on a tangible event. Hence, in this *Make News* piece, while we regard SBD as a potentially promising entity that may facilitate our understanding of suicide, we also scrutinize its clinical validity and research potential.

The proposed criteria

There are five proposed criteria for SBD (shown in Table 1). At the outset it is worth noting that only criterion A specifies what SBD denotes. The remainder (Criteria B-E), all stipulate exclusions.

Table 1. DSM-5 proposed criteria for suicidal behavior disorder

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.

Criterion A

Criterion A contains the defining feature of SBD – namely, the individual has made a suicide attempt (SA). But importantly, although there is an expectation that the attempt is potentially lethal, there is no explicit mention of "an intention to die." This is critical because it is *intent* that drives any suicide attempt making it a key determining factor, and one that can be assessed clinically. By specifying that the SA cannot be a Nonsuicidal Self-Injury (NSSI), Criterion B does allude to intention (indirectly), but again intent is not explicitly defined.

Criterion A also states that the SA must have occurred within the last 24 months. This caveat seems to be based upon research that revealed a heightened risk of suicide in the 24 months immediately following an attempt. But all individuals who attempt suicide are at an increased risk of future attempts, with an estimated 2.3% of index attempt survivors dying in a subsequent attempt (Bostwick, Pabbati, Geske and McKean 2016). This duration specifier is therefore inaccurate and likely to underestimate the long-term consequences of a SA, and clinically, the key factor is not the time that has elapsed since the SA took place, but rather the intentions of the individual at the time of the attempt.

Criterion B

This criterion is the first of the exclusionary criteria for SBD, and it makes an important distinction between it and Nonsuicidal Self-Injury (NSSI) – another condition in the same section

of DSM-5. Criterion B specifies that harm as part of SBD is *not* directed to the surface of the body, and nor is it undertaken to simply relieve negative feelings or induce positive ones. This is vital, because the cognitive processes that drive suicide attempts are usually very different to those that drive NSSI. However clinically, confusion can arise because in some instances NSSI can inadvertently result in suicide. Death in these cases is an unexpected consequence, and so technically this is not regarded as SBD, but determining this in practice is obviously difficult. Additionally, disentangling intent is sometimes complicated because individuals with a history of NSSI can, and often do, attempt suicide. In other words, patients with a pattern of NSSI (warranting this diagnosis) can also occasionally make a SA and therefore also have a diagnosis of SBD. Again, what distinguishes these conditions, is the intention of the individual at the time of the behaviors. Therefore, criterion B further highlights the importance of accurately gauging intent when determining what is suicidal behavior; ensuring the individual intends to end their life rather than gaining relief from negative feelings, interpersonal difficulties or generating a positive mental state – all of which are the underlying drivers for NSSI. Unfortunately, DSM complicates the distinction of SBD and NSSI by placing a somewhat arbitrary limit on the number of instances of self-injurious behavior that are permissible in the past 12 months – with five or more indicating NSSI. The repetitive nature of NSSI is unlikely to be a reliable diagnostic feature, given that it is not uncommon for individuals to make several serious suicide attempts in a short space of time, and conversely many NSSI events occur sporadically.

Criterion C

In the steps that lead to suicide (reappraisal, defeat and entrapment, ideation, intent and attempt) criterion C limits SBD to suicide attempts alone and precludes its use with respect to suicidal ideation or preparatory acts. This constraint is a major problem as it reduces both the *sensitivity* and *specificity* of the diagnosis (Obegi 2018). For example, by only capturing those individuals that have already attempted suicide, the diagnosis of SBD fails to include individuals that are currently experiencing significant suicidality but have not as yet made an attempt at suicide. At the same time, SBD captures everyone who has attempted suicide in the past two years regardless of whether they currently pose a risk to themselves. In other words, it is imprecise both in terms of inclusion and exclusion and the boundary that SBD delineates is not particularly meaningful.

Diagnostic Features

In addition to the proposed criteria it is suggested that a specifier be used to indicate whether the attempt has occurred in the *past 12 months* in which case SBD is described as *current*, or it occurred *more than a year ago* in which case it is designated as being in *early remission*. The cut-off for this specifier seems to be rather arbitrary, because irrespective of the time that has elapsed since the last SA, the suicide process that leads to future attempts can take anywhere from several days to several months and possibly years. And so, specifying that an individual is in "remission" following a suicide attempt, based purely on the time elapsed, runs the risk of diminishing the importance of the many precipitants and individual processes that can lead to another attempt being made.

In sum, the current defining feature of SBD, of having made at least one suicide attempt, rests on the expectation that it may lead to death. It implies some degree of suicidal intent, but it is not stated explicitly, and therefore defining and evaluating it clinically is extremely difficult especially as DSM provides little guidance in this regard. Furthermore, by relying solely on SA as the key determinant for SBD, the population of individuals diagnosed with this "disorder" will be *not* include those individuals who are yet to manifest suicidal behaviors – but may have ideation and intent. We feel this is a key limitation and will discuss further why this is a critical clinical consideration that needs to be addressed in order to gain a better understanding of suicide mechanisms.

Suicide attempt and SBD

The predication of SBD on the occurrence of a SA is substantiated in part by emerging evidence, which suggests that neurobiologically an attempt at suicide differentiates those that are engaged in suicidal thinking. A recent study for example, has shown that those that attempt suicide are likely to have altered neural network functioning (Malhi, Das, Outhred et al. 2019b). Specifically, there is a shift from suicidal ideation to planning and executing a SA and during this process, where intent presumably becomes consolidated, the individual becomes more fixed and rigid in their thinking – gravitating towards accepting and embracing the idea of suicide and eventually regarding it as a means of ending their psychological turmoil. Clinically, this probably coincides with the point at which individuals become less distressed and less anxious, and

simultaneously become increasingly inflexible in their thinking. In depressed patients experiencing suicidal ideation, a recent study has found that such cognitive inflexibility resulted in reduced engagement of the dorsal components of default mode network (DMN) but increased engagement of the subcortical basal ganglia network (BGN), and that this pattern of activity, was determined principally by whether they had previously made a suicide attempt (Malhi, Das, Outhred et al. 2019a). These findings suggest that a suicide attempt is not only a significant psychological experience, but that neurobiologically it is a transformative event, which has the potential to fundamentally change the brain, perhaps irreversibly.

However, delineating precisely when and how this occurs is difficult because a suicide "attempt" is not a discrete event and typically unfolds over a period of time. For example, self-poisoning requires accumulating the necessary drugs, and more elaborate means such as carbon monoxide poisoning, or hanging often require the acquisition of particular paraphernalia. And so, it is unclear whether the start of a suicide attempt should be defined as commencing when these items are acquired, assembled, or whether steps to harm oneself are initiated. Hence why *intent* is critical. But intent can also take time to crystallize, and its inception may be insidious rather than arriving as a fully formed idea.

For these reasons, while we support the diagnosis of suicidal behavior – resting its definition predominantly on suicide attempts, has some key limitations. As mentioned earlier, the DSM-5 definition of SBD does not properly define and incorporate suicide intent, which is essential if we are to gain a meaningful understanding of suicide. To do this we need to examine suicidal intent alongside suicidal behavior. Logically, suicidal intent precedes any suicide attempt, and so the intent can be subsumed within the suicide attempt by extending the latter and regarding it as having a "suicide envelope." This begins prior to the suicide attempt and it is the period within which suicidal intent emerges and crystallizes. This time period *prior* to a suicide attempt *(Pre-SA)* that is characterized by intensifying suicidal intent is fundamentally different to that *after* the suicide attempt *(Post-SA),* but more importantly it is separate from the period *prior* to the development of suicide intent (*Pre-SI*), where suicidal ideation has emerged, but intent is yet to form (see Figure 1).

Figure 1

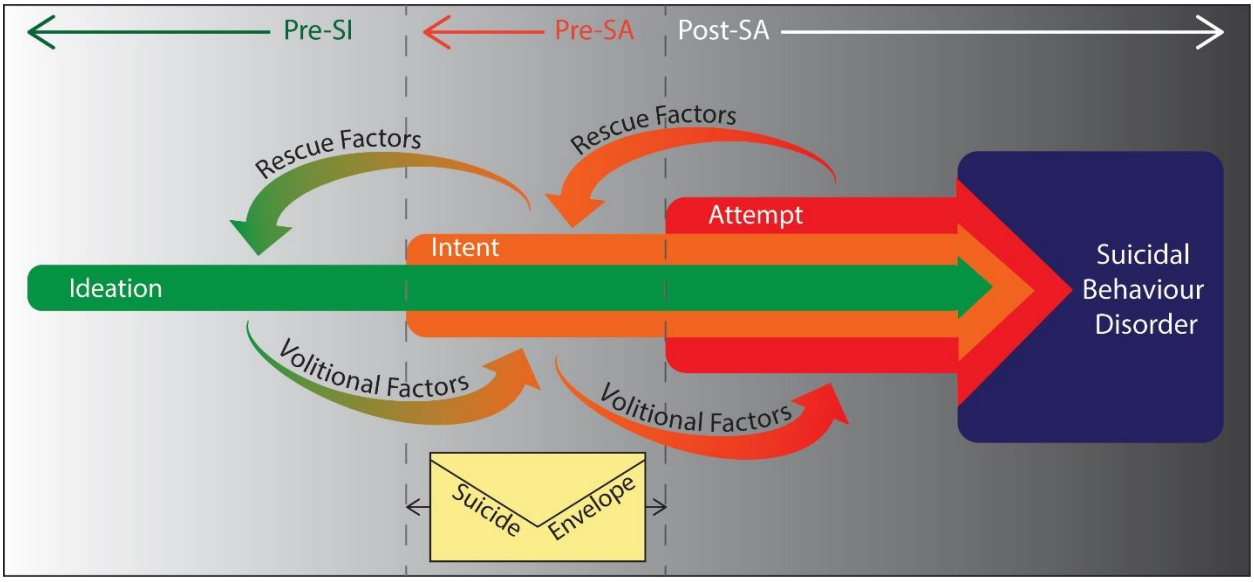

Figure 1. Prelude to suicidal behavior disorder: suicide ideation, intent and attempt. Adapting an existing model that commences with reappraisal of self, others and situational factors – itself a product of a biopsychosocial risk diathesis – the schematic begins with suicidal ideation that emerges from an overwhelming sense of defeat and entrapment. The diagram expands the progression from suicidal ideation to intention and onto attempt, all of which, collectively, serve as a prelude to suicidal behavior and ultimately suicide. It is important to note that, as the process unfolds, each step is subsumed by the next, and that ideation is essential for intent, and both ideation and intent are necessary for a suicide attempt (SA) to occur. Finally, the figure also illustrates how an SA is a pre-requisite for suicidal behavior disorder. Each of these "phases" are clearly demarcated by the successive commencement of ideation, intent and attempt, creating a pre-intent (Pre-SI) period, a pre-attempt (Pre-SA) period and a post-attempt (Post-SA) period. The transition from suicidal intent to SA is conceptualized as the "suicide envelope," within which further critical reappraisal occurs and a final commitment to attempt suicide is made.

By examining the process of suicide from ideation to intent and then to attempt, it is hoped that the factors that drive this progression can be mapped. However thus far, efforts to map this process have not yielded prognostic indicators – partly because tracking suicide longitudinally is inherently complicated and raises many ethical concerns – one major problem being that once a significant suicide risk is identified - it is no longer ethically feasible to withhold support/treatment. Hence why, thinking and decision-making that occurs within the 'suicide envelope' remains poorly understood. In the absence of this knowledge, one potential way forward may be to use SBD to better understand those who have already passed through this process, and then to compare these individuals against those with suicide ideation and those entering the suicide envelope. Such a study would be cross-sectional as opposed to being longitudinal, but it would still no doubt provide some valuable insights.

SBD as a distinct entity

The classification of suicide as a behavioral disorder, i.e., SBD, infers that there are separate and possibly unique processes that underpin suicide attempts and suicide; and indeed, there are. In practice, conflation occurs because suicidal ideation and suicide itself seems to occur in the "context" of a mental illness such a depression, bipolar disorder, schizophrenia or substance misuse. Of course, suicidal behavior does occur in all of these psychiatric illnesses and in particular, it is a prominent feature of mood disorders. But not all depressed individuals have suicidal ideation or attempt suicide, and more importantly, a significant number of suicides can, and do, occur in the absence of any psychiatric illness *per se*. This then clearly suggests that suicide is an independent entity and warrants separate consideration - on par perhaps with other psychiatric conditions (Oquendo and Baca-Garcia 2014).

Positioning SBD as a separate disorder and framing it as a potential comorbidity, immediately provides a new perspective on SBD as a disorder that occurs in the context of a psychiatric condition. This new vantage point allows for it to be investigated either as an independent phenomenon that arises through separate mechanisms or an overlapping (co-occurring) syndrome that stems from shared processes, in which case it may be regarded as a corollary of the psychiatric illness. In short, it allows for the features of SBD to be examined differentially according to whether it is occurring in the context of a psychiatric illness or not and this will provide additional insights into its unique and shared pathophysiology. For instance, SBD may engage quite distinct mechanisms, but ones that can be impinged upon by psychiatric disorders - catalyzing processes that lead to SBD. Alternatively, psychiatric conditions may activate their own unique pathways that culminate in SBD. Such distinctions are important because they may have implications for preventative and therapeutic strategies but can only be made if SBD is conceptualized as a distinct entity.

The future of suicidal behavior disorder

SBD has the potential for great utility both clinically and in research investigating the processes surrounding suicide. Formulating SBD as a distinct diagnosis affords a more granular examination of the mechanisms underlying suicide and should open the door to more effective and targeted management approaches.

However, before this is possible, the proposed criteria for SBD need to be altered to accurately reflect the true defining characteristic of SBD – i.e., suicidal *intent*. And although

examining individuals who have already attempted suicide is likely to yield useful insights, this approach is unlikely to aid the detection and diagnosis of those with suicidal intent. Therefore, it is important to include intention alongside suicide attempts when defining suicidal behavior and to carefully investigate the "suicide envelope" which contains the transition from intention to action.

Hence, for SBD to be of significant use it needs to examine the *current* mental state of individuals and cannot be restricted to retrospective examination as it is in its current form. Only by studying individuals that intend to attempt suicide will opportunities for prevention be made possible. And finally, the inclusion of individuals currently experiencing suicidal intent will likely increase both the sensitivity and specificity of the diagnosis (SBD).

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