



The Integrated Motivational-Volitional Model of Suicidal Behavior

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The integrated motivational-volitional model of suicidal behavior (IMV; O'Connor, 2011) attempts to synthesize, distill, and extend our knowledge and understanding of why people die by suicide, with a particular focus on the psychology of the suicidal mind. Ever since the mid-1990s, when I embarked on my PhD research, I was driven by the desire to see the world through the eyes of those who are suicidal, to understand something of how their torment, their hopelessness, their feelings of entrapment and despair could lead to suicide. This desire has never waned, but in this pursuit I have been struck by a number of issues I believe have hindered our attempts to understand suicide and ultimately informed my thinking when developing the IMV.

First, historically, we have worked very much within our own disciplinary boundaries, thereby limiting opportunities for mutual learning and appreciation of each others' unique perspectives, of our strengths, and of our weaknesses. In recent decades, however, this has changed dramatically for the better. Indeed, I would argue that interdisciplinary suicidological science is now the rule rather than the exception. Hopefully, by continuing to work together and embracing a diverse range of methodologies and perspectives, we will be more successful in translating suicidological science into saving people's lives in the future. This interdisciplinary cooperation has, in large part, also led to the universal acceptance that suicide is characterized by the complex interplay of biology, psychology, environment, and culture (O'Connor, Platt, & Gordon, 2011), and that we need to move beyond psychiatric categories if we are to further understand the causes of suicidal malaise (van Heeringen, 2001).

Second, many predictive models have adopted a narrow focus; they have not been sufficiently integrative in their operationalization (Prinstein, 2008), oftentimes failing to build upon the growing empirical evidence base that has been accrued across the international research literature. As we advance suicidological science in the 21st century, we should not merely reinvent the wheel or throw the proverbial baby out with the bathwater. Rather we must integrate the disparate empirical and theoretical evidence, which heretofore has

been largely cross-sectional or case-control in study design. We must refine our thinking, continue to search for conceptual commonalities across the discipline and crucially test theory-driven research questions longitudinally, to determine the extent to which we can predict suicidal thoughts and behavior over time and across populations.

Third, suicidology presents many challenges to researchers, clinicians, and policy-planners alike. Chief among these challenges is our ability to predict with sensitivity and specificity not only who will develop suicidal thoughts (or not), but who will *act* on these thoughts and when. With respect to the latter point, despite putting forward numerous models of suicidal behavior over the past 25 years (see O'Connor, 2011, for overview of models), as a discipline we have largely failed to demonstrate that any single theoretical framework can distinguish between suicide ideators (i.e., those who experience suicidal ideation without acting on those thoughts) and suicide attempters (i.e., those who translate suicidal ideation into actual suicide attempts). A recent noteworthy exception is Joiner's interpersonal-psychological theory of suicide (IPT; Joiner, 2005; Van Orden et al., 2010), which posits that thwarted belongingness and perceived burdensomeness cause suicidal desire (i.e., ideation), and this desire is not translated into suicidal behavior unless the capability for suicide is present. The IPT is an interesting and innovative theory, and in its most recent exposition its proponents invite further scientific inquiry (Van Orden et al., 2010). In addition, evidence from the US National Comorbidity Survey Replication has for the first time shown that depression may predict suicidal ideation – but not plans or attempts – whereas disorders that include severe anxiety/agitation and poor impulse control may be associated with suicide plans and attempts (Nock, Hwang, Sampson, & Kessler, 2010).

The IMV Model in Brief

As noted above, many of the aforementioned issues served as catalysts for the development of my thinking in respect of the

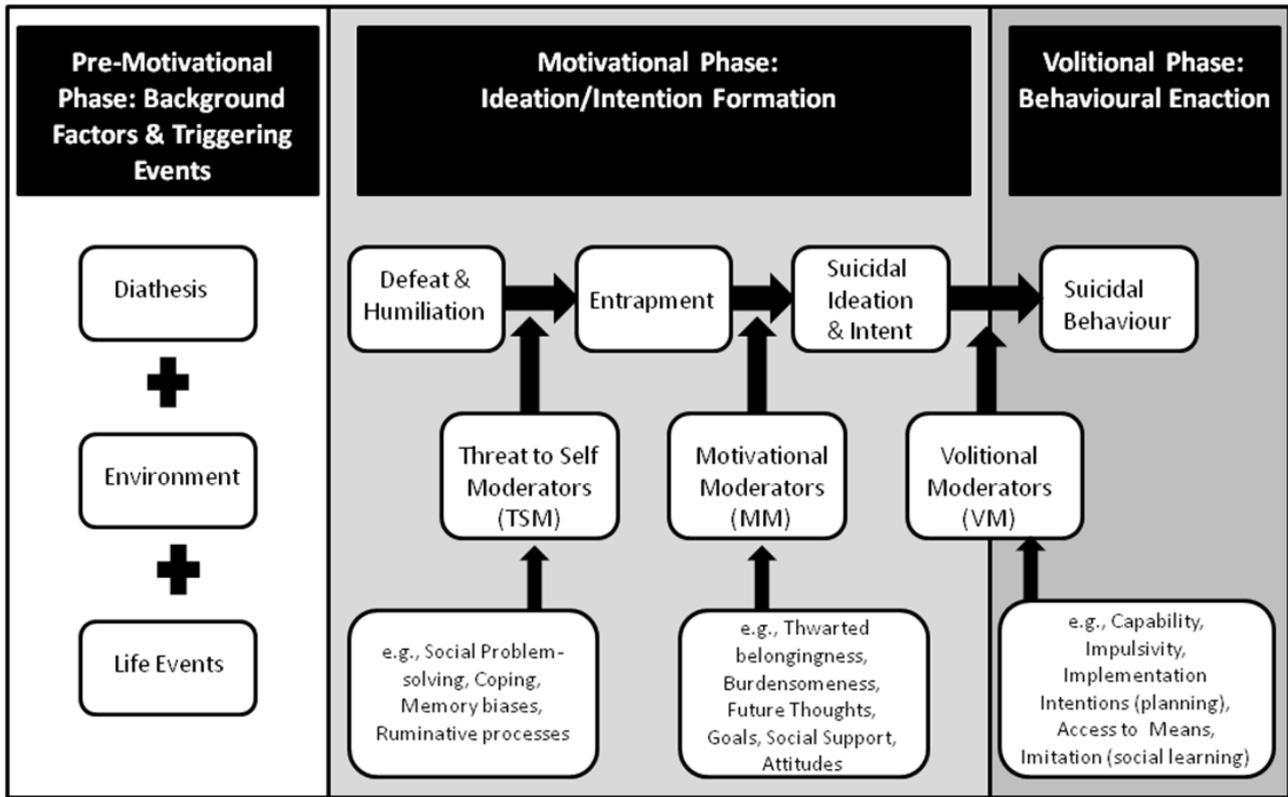


Figure 1. Integrated motivational-volitional model of suicidal behavior (IMV).

IMV. Thus, I endeavored to address some of these issues by incorporating the major components from the predominant frameworks into a new integrated model of suicidal behavior which could also make predictions about the types of factors that distinguished between suicide ideators and suicide attempters. The resultant IMV (O'Connor, 2011) is a three-phase model (see Figure 1) that conceptualizes suicide and self-harm as behaviors *sui generis*, not simply as by-products or symptoms of mental disorder. It maps the relationship between background factors and trigger events as well as the development of suicidal ideation/intent through to suicidal behavior. It also yields testable hypotheses and points to opportunities for potential intervention and prevention.

In brief, the IMV proposes that suicidal behavior results from a complex interplay of factors, the proximal predictor of which is one's *intention* to engage in suicidal behavior. Intention, in turn, is determined by feelings of entrapment where suicidal behavior is seen as the salient solution to life circumstances. These feelings of being trapped are triggered by defeat/humiliation appraisals, which are often associated with chronic or acute stressors. The transitions from the defeat/humiliation stage to entrapment, from entrapment to suicidal ideation/intent, and from ideation/intent to suicidal behavior are determined by stage-specific moderators (i.e., factors that facilitate/obstruct movement between stages). In addition, background factors (e.g., deprivation, vulnerabilities) and life events (e.g., relationship crisis), which comprise the premotivational phase (i.e., be-

fore the commencement of ideation formation), provide the broader biosocial context for suicide.

Conceptual Rationale

Although my thinking was influenced by a large number of theoretical frameworks, three were especially influential. The first, the theory of planned behavior (TPB, Ajzen, 1991) provides a unifying theoretical framework for the IMV as it posits that the prediction of any behavior can be divided into two groups of factors (motivational and volitional factors), represented here as the motivational and volitional phases within the IMV. In essence, the motivational phase describes those factors associated with the development of suicidal ideation and one's intention to engage in suicidal behavior. Volitional phase factors, on the other hand, are concerned with behavioral enaction, those factors that increase the likelihood that suicidal attempts will emerge from suicidal thinking (i.e., that thoughts are acted upon). Therefore, the TPB provides a clear theoretical distinction between suicidal ideation and suicidal behavior. Not only is the TPB conceptually useful, but we have demonstrated its utility in understanding suicidal intent in patients hospitalized following serious self-harm (O'Connor, Armitage, & Gray, 2006). More recently, in a sample of 5,604 adolescents, as predicted by the IMV, we found that

motivational phase variables did not distinguish between adolescents who only thought about self-harm (i.e., ideators-only) and those who actually engaged in self-harm (i.e., enactors), whereas the volitional phase variables did (O'Connor, Rasmussen, & Hawton, 2011). In other words, volitional moderators bridge the intention-behavior gap. Future research is required to investigate this distinction further in respect of suicidal ideation and suicide attempts.

The second major influence is the diathesis-stress hypothesis (e.g., Schotte & Clum, 1987), which highlights a key role for (cognitive and biological) vulnerability factors, which become particularly pernicious when activated by stress. In the main, together with environmental influences and negative life events, these diatheses characterize the premotivational phase of the IMV, setting the biosocial context in which suicidal ideation/behavior may develop. Indeed, sensitivity to signals of defeat/humiliation are determined by such background factors. For example, perfectionism may increase risk of self-harm by lowering the threshold beyond which stress becomes pernicious (O'Connor, Rasmussen, & Hawton, 2010).

The arrested flight model of suicidal behavior (Williams, 2001; Williams & Pollock, 2001), the third key influence on my thinking, informs the central pathway within the IMV, describing the development of suicidal ideation (i.e., motivational phase) and behavior (i.e., volitional phase). According to Williams and colleagues (Williams, Duggan, Crane, & Hepburn, 2011), situations of arrested flight (feeling defeated, trapped with no rescue) are the "setting conditions" for suicidal behavior which can arise out of actual traumatic experiences (e.g., sexual abuse) or how one perceives their life circumstances (e.g., being a failure). However, the IMV extends the arrested flight conceptualization by specifying the moderators that account for the transition between defeat/humiliation and entrapment (threat to self moderators), from entrapment to suicidal ideation/intent (motivational moderators), and from suicidal ideation/intent to suicidal behavior (volitional moderators).

A number of recent studies yielded support for the arrested flight constructs including evidence that positive future thinking, a motivational moderator, strengthens the entrapment-suicidal ideation pathway among suicide attempters as per the IMV model (Johnson, TARRIER, & Gooding, 2008; O'Connor, 2003; O'Connor, Fraser, Whyte, MacHale, & Masterton, 2008; Rasmussen et al., 2010). Although not directly testing the arrested flight model, Williams and colleagues, among others, also provided support for the deleterious effects of autobiographical memory biases and social problem-solving deficits in the phenomenology of suicidal behavior (Williams, Barnhofer, Crane, & Beck, 2005; Williams et al., 2007). These latter factors are conceptualized as motivational phase variables within the IMV. Two other recent studies from our group also demonstrated that the self-regulation of thwarted goals, another motivational phase variable, predicts short-term suicidal ideation (O'Connor, Fraser, Whyte,

MacHale, & Masterton, 2009) and repetition of self-harm over 2 years (O'Connor, Ryan, O'Carroll, & Smyth, 2011), over and above clinical variables. However, much more prospective work is required, especially employing clinical samples to test the numerous mediating and moderating pathways described within the IMV.

The Way Forward

The presentation of the IMV is only the first step; I hope it will generate interest and stimulate further research. Needless to say, it needs to be tested further; thus far, only components within the model have been investigated simultaneously, albeit often in suicidal samples and sometimes within prospective study designs. Looking forward, the model lends itself to detailed empirical examination. Studies to collate a definitive list of those factors that comprise the motivational phase vs the volitional phase would be extremely fruitful. These could be supplemented by experimental and field studies to determine the specificity of the threat to self- and motivational moderators. For example, it would be useful to know the extent to which the influence of threat to self moderators is circumscribed to the transition from defeat/humiliation to entrapment rather than from entrapment to suicidal ideation. It would also be beneficial to identify additional protective factors that impede the transition from defeat to suicidal ideation and that extend the intention-behavior gap. The model also delineates the different phases along the path to suicidal behavior, which represent potential opportunities for intervention. These ought to be explored in more detail, as through more targeted intervention, we will be better placed to prevent the experience of unbearable distress being translated into suicidal behavior.

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