



Hopelessness Predicts Suicide Ideation But Not Attempts: A 10-Year Longitudinal Study

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Hopelessness is one of the most commonly cited risk factors for suicidal behaviors. However, several retrospective studies suggest that hopelessness, while strongly correlated with suicide ideation, does not distinguish attempters from ideators without attempts. This study is the first to utilize a prospective design to disambiguate the relationship of hopelessness to ideation versus attempts. Participants were 142 depressed patients followed up over 10 years. Hopelessness and suicidality (ideation and attempts) were assessed using validated questionnaires and structured interviews. Both retrospective and prospective analyses revealed that hopelessness was higher among those reporting any suicidality (ideation or attempts) compared with nonsuicidal individuals. However, hopelessness failed to meaningfully distinguish attempters from ideators in both retrospective and prospective analyses. Taken together with results from previous studies, our findings suggest hopelessness is best conceptualized as a risk factor for suicide ideation but not progression from ideation to attempts.

Suicide is a leading cause of death worldwide. According to the latest estimates by the World Health Organization (2014), suicides account for 50% of all violent deaths in men and 71% in women. Beyond suicide death, research indicates that a much larger number of people attempt or consider suicide (Goldsmith, Pellmar, Kleinman, & Bunney, 2002; Nock et al., 2008). However, despite considerable scientific and policy efforts at suicide intervention, the rates of suicide attempts have remained largely unchanged (WHO, 2014). A critical task for suicide researchers is to identify robust risk factors for suicidal thoughts and behaviors.

One of the most oft-cited risk factors for suicidal behavior is hopelessness. First

formulated by Beck (1967), the hopelessness theory of suicide states that hopelessness—a negative attributional style about prospects for the future—leads depressed individuals to view suicide as the only way out of insoluble problems. Hopelessness is thus conceptualized as an important cognitive vulnerability for suicide. Consistent with this perspective, several studies have shown that individuals at elevated risks for suicide tended to experience greater levels of hopelessness. In a large-scale community sample, for example, hopelessness predicted suicidal thoughts, suicide attempts, and suicide death over a 13-year interval (Kuo, Gallo, & Eaton, 2004). Similarly, in patients with psychosis, hopelessness reliably predicted attempted suicide up to

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4 to 6 years later (Klonsky, Kotov, Bakst, Rabinowitz, & Bromet, 2012).

Despite these findings, a critical limitation of this research is a lack of clarity regarding the role of hopelessness in suicide. Studies that examine predictors of suicide attempts tend to compare individuals with suicidal attempts to individuals without attempts (Klonsky & May, 2014). However, because all (or virtually all) attempters experience ideation, these research designs allow correlates of ideation to appear as correlates of attempts. Indeed, emerging evidence suggests that oft-cited risk factors for suicide such as depression and hopelessness are strong predictors of ideation, but fail to distinguish attempters from ideators without attempts (Klonsky & May, 2014; May & Klonsky, 2016). Consequently, it is possible that hopelessness predicts outcomes such as suicide attempts and deaths solely through its relationship to suicide ideation, but offers no prediction of these outcomes beyond its association with ideation. Correlational studies suggest this is indeed the case. For example, Apter, Horesh, Gothelf, Graffi, and Lepkifker (2001) found that hopelessness was elevated in depressed patients with histories of any form of suicidality compared with depressed patients without suicidality; however, Apter et al. also found that hopelessness was no higher in attempters than ideators, and this pattern held even when analyses compared patients with severe attempts to patients with only ideation. Similarly, in a sample of 102 bipolar outpatients, Acosta et al. (2012) found that hopelessness was independently associated with suicidal thoughts but not suicide attempts.

While these studies are useful for clarifying the role of hopelessness in suicide, they are limited by their retrospective design. Prospective research is necessary to further disambiguate the relationship of hopelessness to ideation versus attempts. Thus, in this study we sought to extend the literature by examining the prospective ability of hopelessness to predict suicidal ideation versus

suicide attempts in depressed patients over a 10-year follow-up period.

METHOD

Participants

Participants ($N = 142$) were outpatients with DSM-IV major depressive disorder and/or dysthymic disorder recruited from the State University of New York at Stony Brook (SUSB) Hospital Outpatient Psychiatric Clinic and the SUSB Psychological Services Center as part of a larger project investigating the naturalistic course of depressive disorders over 10 years (Klein, Shankman, & Rose, 2006). These participants were then followed up at 30, 60, 90, and 120 months by in-person visits whenever possible and over the phone. Interviewers for this project were formally trained and regularly supervised, including a doctoral-level clinical psychologist, a master's-level psychiatric social worker, and graduate students in clinical psychology. This study was approved by the Stony Brook University institutional review board. Written informed consent was obtained from all study participants.

Measures

Suicidality. Baseline suicide ideation was coded as present if it was either endorsed during the Structured Clinical Interview for DSM-III-R (SCID; Spitzer, Williams, Gibbon, & First, 1990) or on the Inventory to Diagnose Depression (Zimmerman & Coryell, 1987) at baseline. Lifetime suicide attempts were assessed using the SCID. Suicide ideation and attempts during follow-up intervals were assessed using a semi structured interview, the Longitudinal Interval Follow-Up Evaluation (Keller et al., 1987).

Hopelessness. Hopelessness was measured using the Beck Hopelessness Scale (BHS), a 20-item, true-false scale designed to index the extent to which one's cognition

is organized around negative future expectancies (Beck, 1988). The BHS has been shown to have high internal consistency reliability and concurrent and construct validity.

RESULTS

Retrospective Analyses

First, participants were classified as individuals with either lifetime histories of suicidality (i.e., attempts or ideation; $n = 78$) or no history of suicidality (i.e., no previous attempts or ideation; $n = 62$). Hopelessness was significantly higher in lifetime suicidal individuals ($M = 10.68$, $SD = 5.74$) compared with nonsuicidal controls ($M = 8.63$, $SD = 5.15$; $p = .029$, $d = .38$). Second, the individuals with lifetime histories of suicidality were further classified into participants with attempts ($n = 36$, $M = 11.68$, $SD = 5.70$) versus participants who denied attempts but reported ideation at baseline ($n = 42$, $M = 9.83$, $SD = 5.71$). There was no significant difference in hopelessness between these two groups ($p = .158$, $d = .32$).

Prospective Analyses

Participants were first classified as individuals who reported suicidality (i.e., attempts or ideation) during the 10-year follow-up period ($n = 28$) or who reported no suicidality during follow-up (i.e., no attempts or ideation; $n = 85$). Hopelessness was significantly higher in the prospective suicidal individuals ($M = 12.53$, $SD = 5.87$) than in the nonsuicidal controls ($M = 9.06$, $SD = 4.96$), ($p = .003$; $d = .64$). Second, the suicidal individuals were further classified into those who made attempts during follow-up ($n = 11$) versus those who reported ideation during follow-up but no attempts ($n = 17$). No significant difference in hopelessness was observed between attempters ($M = 11.94$, $SD = 6.63$) and ideators ($M = 13.45$, $SD = 4.6$), ($p = .51$, $d = .26$).

DISCUSSION

The goal of this study was to elucidate the role of hopelessness in the prospective prediction of suicidal thoughts and behaviors. We thus examined hopelessness and suicide ideation and attempts in a 10-year follow-up study of depressed patients. Results indicated that baseline hopelessness robustly predicted future ideation but negligibly distinguished individuals who went on to make attempts from those who went on to experience ideation without attempts. These findings are consistent with those from retrospective studies (Acosta et al., 2012; Apter et al., 2001) and suggest that hopelessness is a risk factor for suicide ideation but not for the progression from ideation to attempts.

There are indeed past studies reporting prospective relationships between hopelessness and suicide attempts (e.g., Beck, Brown, & Steer, 1989). However, one implication of our findings is that hopelessness relates to suicide attempts to the extent it relates to suicide ideation, but does not predict suicidal outcomes beyond ideation. This finding is in partial contradiction with theories of suicide that implicate hopelessness as the primary factor in suicide (Abramson et al., 2002; Beck, 1967). Instead, findings are consistent with the more recent perspective that hopelessness plays a key role in ideation, whereas other factors explain the progression from ideation to attempts (Klonsky & May, 2015).

More broadly, findings from this study highlight the need to distinguish factors that predict suicide ideation from those that predict suicide attempts among ideators. Notably, just as hopelessness is shown to predict suicide ideation but not attempts, this same pattern has been found for many other commonly cited risk factors for suicide, including depression, most mental disorders, and even impulsivity—each predicts ideation, but fails to meaningfully differentiate attempters from ideators (Klonsky & May, 2014; May & Klonsky, 2016). Unfortunately, relatively little is known about

factors specifically contributing to the transition from suicidal thoughts to acts (Klonsky & May, 2014). A critical task for future research is to elucidate distinct risk factors associated with suicide ideation and its progression to attempts (Glenn & Nock, 2014).

Findings from this study have important practical implications. Hopelessness is consistently highlighted in guidelines for suicide risk assessments and interventions (Chu et al., 2015; Joiner, Walker, Rudd, & Jobes, 1999). Our findings suggest that the relevance of hopelessness for suicide risk is relatively specific: hopelessness confers risk for suicide ideation. It is important that risk guidelines start to distinguish factors that predict ideation versus progression from ideation to attempts (Klonsky, May, & Safer, 2016).

It was more difficult to place our retrospective findings in the context of previous literature. As expected, we found that the difference in hopelessness between individuals with histories of attempts versus individuals reporting baseline ideation but no attempts was not statistically significant;

however, the effect size indicated a modest elevation in hopelessness among attempters compared with ideators. Given the relatively small sizes of these subgroups, it is difficult to know whether the modest elevation is meaningful.

This study has limitations. First, this study included only small subsamples of individuals with ideation or attempts during the 10-year follow-up period, thus limiting the reliability and generalizability of findings. Second, this study was not able to distinguish the ability of hopelessness to predict suicidality over short-term (e.g., days or weeks) versus long-term (e.g., months or years) periods. In light of recent evidence indicating distinct correlates associated with acute versus long-term suicide risks (Glenn & Nock, 2014), the role of hopelessness in suicide ideation and attempt may change across time. Future studies, therefore, should not only replicate our prospective findings, but examine hopelessness as a predictor of suicidal thoughts and behaviors over both shorter and longer intervals.

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