

Emotion Dysregulation and Vulnerability to Suicidal Ideation and Attempts

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Abstract This study investigated the predictive utility of a six-dimensional conceptualization of emotion dysregulation for suicidal ideation, as well as its ability to distinguish among individuals with differing histories of suicidality. Young adults ($N = 96$) with current suicidal ideation but no suicide attempt history ($n = 17$), a history of a single ($n = 20$) or multiple attempts ($n = 17$), or no current ideation/no past attempts ($n = 42$) completed measures of emotion dysregulation, suicidal ideation, depression, hopelessness, and a diagnostic interview. Multiple suicide attempters differed from participants with no suicidal ideation/no past attempts on two emotion dysregulation dimensions—nonacceptance of emotional responses and perceived limited access to emotion regulation strategies. After adjusting for depression symptoms and the presence of a mood or anxiety diagnosis, limited access to emotion regulation strategies significantly predicted current suicidal ideation, a relation that was found to be statistically mediated by hopelessness.

Keywords Emotion regulation · Suicide attempt · Suicidal ideation · Hopelessness

Introduction

In the United States, adolescence and young adulthood is the time of life when individuals are at highest risk for making suicide attempts, and in 2008, approximately 82%

of suicides that occurred among 15 to 24-year-olds occurred at age 18 or above (Centers for Disease Control and Prevention 2011a, b). One important component of suicide prevention is the identification of risk factors for suicidal thinking and behavior. In addition to established risk factors such as depression, hopelessness, and past suicide attempts (Brown et al. 2000; McKeown et al. 1998), problems with emotion regulation may also increase risk for suicidality (Wagner and Zimmerman 2006). Traditional approaches have tended to view emotion regulation as uni-dimensional, however, obscuring the specific mechanisms by which emotion regulation may impact suicidality. The purpose of the present study was to evaluate the ability of a six-dimensional model of emotion dysregulation to distinguish among young adults with differing histories of suicidal thinking and behavior and to predict current suicidal ideation.

Emotion Regulation and Suicidal Thoughts and Behavior

Previous research suggests that problems with emotion regulation may be implicated in suicidality. Ciarrochi et al. (2002) showed that the self-reported ability to manage self-relevant emotions was negatively associated with suicidal ideation among university students, while Tamás et al. (2007) found that endorsement of fewer adaptive responses to negative emotion, as well as more maladaptive responses, increased the odds of suicidal ideation, plans, and attempts in children. Other studies suggest that emotion regulation may vary depending upon the type of suicidal behavior: studies using clinical samples found that adolescent suicide attempters reported more difficulties with the regulation of affect and impulses compared to ideators (Zlotnick et al. 1997; Zlotnick et al. 2003), and that

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adolescent multiple attempters reported more affect dysregulation than single attempters (Esposito et al. 2003).

Prior research examining the association between emotion dysregulation and suicidality has conceptualized emotion regulation in various ways, some of which are in line with traditional clinical views of emotion regulation as a one-dimensional process that involves the control or elimination of disruptive emotions, particularly negative ones, and that is either functional or dysfunctional in a given individual (Thompson 1994). However, emotion regulation is now thought to be multi-dimensional, involving not only inhibition of negative emotions but also cognitive and behavioral responses that take advantage of emotions' adaptive role as sources of important information about the environment (Cole et al. 2004; Thompson 1994). Consistent with this contemporary view, Gratz and Roemer (2004) developed a clinically relevant conceptualization of emotion dysregulation that includes six dimensions: lack of awareness of and attention to emotions (Awareness); lack of clarity about which emotions are being experienced (Clarity); nonaccepting reactions to emotional distress (Nonacceptance); inability to control behavioral impulses in response to negative emotions (Impulse); inability to concentrate and continue to pursue goals when emotionally distressed (Goals); and perceived lack of access to effective regulatory strategies in response to distress (Strategies).

The Role of Nonacceptance, Strategies, and Impulse in Suicidality

Theoretical accounts of suicidal behavior point to specific emotion dysregulation dimensions that are particularly relevant to suicidality. As part of her work on borderline personality disorder (BPD), Linehan (1993) has suggested that individuals with BPD often invalidate or are nonaccepting of their negative emotions, and may attempt suicide to escape their emotions when they feel they lack other ways of coping. Suicidal behaviors thus serve an emotion regulation function and can be conceived of as maladaptive emotion regulation strategies (see also Wagner and Zimmerman 2006). Although it deals with emotion dysregulation in the specific context of BPD, Linehan's theory points to regulatory issues that may be more generally involved in suicide, and Gratz and Roemer's (2004) Nonacceptance and Strategies emotion dysregulation dimensions seem to have particular overlap with this account.

Another account of suicidal behavior that suggests a role for Strategies is the Cry of Pain model (Williams 1997). According to this model, suicidal behavior is a response to a stressful situation that prompts feelings of defeat and is

judged to be both inescapable and to involve no chance of rescue. Psychological factors, such as a belief that one cannot effectively solve one's problems, contribute to the perception of inescapability by increasing feelings of helplessness and hopelessness (Williams et al. 2006). Gratz and Roemer's (2004) Strategies dimension may serve a similar function. A perceived lack of effective regulatory strategies may lead an individual to feel powerless to manage his or her reaction to a situation. These feelings of hopelessness may then prompt the individual to judge the situation itself as inescapable and lead to eventual suicidal behavior.

To our knowledge, only one study has investigated the relation between suicidal ideation and Gratz and Roemer's (2004) six-dimensional model of emotion dysregulation. In a study of high school students, Weinberg and Klonsky (2009) found that each of the six dimensions, except Awareness, was associated with suicidal ideation, with Strategies showing the strongest relation, followed by Impulse, Nonacceptance, Clarity, and Goals. These findings support the theoretical relation between Strategies, Nonacceptance, and suicidality, and the strong relation between Impulse and suicidal ideation is consistent with previous longitudinal research showing impulsivity to be a predictor of future suicidal plans in adolescents (McKeown et al. 1998).

The Present Study

The present study sought to investigate whether Gratz and Roemer's (2004) six emotion dysregulation dimensions would differ among college students with varying histories of suicidality and whether they would also predict suicidal ideation. Based on Linehan (1993) and Williams's (1997) theoretical accounts of suicide, Weinberg and Klonsky's (2009) findings, and research showing emotion dysregulation to differ depending on the degree of suicidality, we hypothesized that Strategies, Nonacceptance, and Impulse would significantly differ among multiple attempters, single attempters, individuals who endorsed suicidal ideation but no past attempts, and non-ideators/non-attempters, with multiple attempters exhibiting the most emotion dysregulation and non-ideators/non-attempters exhibiting the least. We also hypothesized that Strategies, Nonacceptance, and Impulse would significantly predict current ideation, above and beyond established predictors such as depression. In line with Williams's (1997) model, in which certain psychological factors increase risk for suicidality by increasing feelings of inescapability and hopelessness, we also examined whether hopelessness would statistically mediate the relation between emotion dysregulation and suicidal ideation.

Methods

Participants

Undergraduates ($N = 96$; 73 females), ages 18–30 ($M = 19.0$, $SD = 2.2$), from a public university in the northeastern United States were recruited from Introduction to Psychology courses to participate in this study as part of their research requirement or for \$50 in compensation. The mean age for females was 19.0 ($SD = 2.2$), while the mean age for males was 18.8 ($SD = 2.1$). The racial/ethnic composition of the sample was 31% Asian, 30% White, 23% Hispanic, 7% Black, and 8% of other ethnicities. Participants were initially recruited as part of a larger study ($N = 1,011$) exploring social-cognitive risk and protective factors for suicidal thinking and behavior. The present subsample ($N = 96$) was pre-selected from the larger sample based on self-reported history of suicide ideation and attempts. There were no significant differences in age, gender, or race/ethnicity between individuals who were ($n = 96$) and were not ($n = 915$) included in the present subsample (see Surrence et al. 2009).

Measures

Emotion Dysregulation

The Difficulties in Emotion Regulation Scale (DERS; Gratz and Roemer 2004) examines six clinically relevant difficulties in emotion regulation: Lack of Emotional Awareness (Awareness; 6 items); Lack of Emotional Clarity (Clarity; 5 items); Nonacceptance of Emotional Responses (Nonacceptance; 6 items); Impulse Control Difficulties (Impulse; 6 items); Difficulties Engaging in Goal-Directed Behavior (Goals; 5 items); and Limited Access to Emotion Regulation Strategies (Strategies; 8 items). Participants indicated how often each item applied to them on a 5-point scale ranging from 1 (*almost never*) to 5 (*almost always*). Total scores, which can range from 36 to 180, were computed by summing all items, and in the present sample, ranged from 42 to 144 ($M = 92.24$, $SD = 21.95$). As the subscales contain different numbers of items, average scores on each item were computed for each subscale. Cronbach's alpha was 0.92, overall, and ranged from 0.81 to 0.91 for the subscales.

Suicide Attempt History

The Suicidal Behavior Screening (SBS), a self-report measure derived from the young adult version of the Computerized Diagnostic Interview Schedule for Children (C-DISC; Shaffer et al. 2000), was used to screen for lifetime history of suicide attempts. Participants responded

to the question, "Have you ever, in your whole life, tried to kill yourself or made a suicide attempt?" If participants responded yes, they were asked to indicate how many attempts they had made and if they had made any attempts in the past year. Participants who reported they had made more than one previous suicide attempt were classified as having a *multiple attempt* history.

Depression Symptoms and Mood/Anxiety Diagnosis

Symptoms of depression were assessed using the PRIME-MD Patient Health Questionnaire (PHQ-9; Spitzer et al. 1999), a 9-item self-report scale assessing symptoms of major depressive disorder, as experienced in the previous 2 weeks, using criteria from the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV; American Psychiatric Association 1994). Each item is rated from 0 (*not at all*) to 3 (*nearly every day*). Item 9 ("Thoughts that you would be better off dead, or of hurting yourself in some way") was used to classify suicide ideators and was thus excluded from total PHQ-9 scores. Total scores on items 1–8 ranged from 0 to 20 ($M = 9.66$, $SD = 4.83$). In the present study, Cronbach's alpha for items 1–8 was 0.81.

Mood and anxiety disorders were assessed using the young adult version of the C-DISC (Shaffer et al. 2000), a structured diagnostic interview designed to be administered by lay interviewers to assess symptoms consistent with the DSM-IV (American Psychiatric Association 1994). Interviews in the current study were conducted by trained post-baccalaureate or Masters-level research assistants. Modules administered included Major Depression, Dysthymic Disorder, Mania, Hypomania, Generalized Anxiety Disorder, and Social Phobia.

Suicidal Ideation

The Beck Scale for Suicidal Ideation (BSS; Beck and Steer 1993) is a 21-item self-report measure that assesses passive and active suicidal ideation, wish to die, plans, and access to means during the previous week. Total scores, which can range from 0 to 38, are computed by summing items 1–19, and in the present sample, ranged from 0 to 14 ($M = 1.11$, $SD = 2.79$). Cronbach's alpha was 0.97.

Hopelessness

Negative expectations about the future were measured using the Beck Hopelessness Scale (BHS; Beck and Steer 1988), a 20-item self-report questionnaire. Questions are presented in a true/false format, and scores can range from 0 to 20. In the present sample, scores ranged from 0 to 20 ($M = 5.69$, $SD = 4.25$). Cronbach's alpha was 0.87.

Procedure

Participants took part in 2 study sessions approximately 3 weeks apart. In the first session, 1,011 participants completed self-report measures that included the DERS, SBS, and PHQ-9 in groups of 2–8. Participants who gave consent to be contacted for future research were recruited to participate in the second study session. The resulting 96-person subsample included participants who had reported a suicide attempt history or suicidal ideation, and a random sample of participants who reported no history of ideation or attempts. During the second session, participants completed the BSS, BHS, and the C-DISC, as well as self-report measures and computer-based tasks not relevant to the current study. Research assistants completed a risk assessment procedure before debriefing participants after each session. Individuals who met the pre-established risk criteria were interviewed by R.M. and referred to the college counseling center, if necessary. All participants were provided with a list of local treatment referrals.

Results

Participant Characteristics

Thirty-seven participants reported a lifetime suicide attempt, and 59 participants did not report a suicide attempt history. Of participants who had made an attempt, 20 reported a single attempt and 17 reported multiple attempts. On average, multiple attempters had a history of 3.12 (SD = 2.64) suicide attempts. Of participants who did

not report an attempt, 17 reported current suicidal ideation on item 9 of the PHQ-9 (ideators) and 42 reported no ideation (controls). There were no significant gender and racial/ethnic differences among the four groups. However, single attempters were significantly older ($M = 20.5$, $SD = 3.8$) than controls ($M = 18.7$, $SD = 1.5$), $t(92) = 3.13$, $P < .05$, ideators ($M = 18.5$, $SD = 0.8$), $t(92) = 2.94$, $P < .05$, and multiple attempters ($M = 18.3$, $SD = 0.5$), $t(92) = 3.20$, $P < .05$.

Differences in Emotion Dysregulation and Symptoms by Past Attempt Status

A multivariate analysis of variance showed a significant difference in emotion dysregulation scales by attempt status, $F(18, 257) = 1.63$, $P = .05$. Follow up one-way ANOVAs indicated significant omnibus differences in Nonacceptance and Strategies (See Table 1). Bonferroni-corrected post hoc comparisons (using an alpha criterion of $0.05/6 = 0.008$) revealed that multiple attempters scored significantly higher on Nonacceptance than controls, $t(92) = 3.20$, $P < .008$, $d = 0.84$, and both multiple and single attempters scored significantly higher on Strategies than controls, $t(92) = 3.97$, $P < .008$, $d = 1.14$, and $t(92) = 3.26$, $P < .008$, $d = 0.88$, respectively. Multiple attempters also scored significantly higher on the BHS, $t(92) = 3.55$, $P < .008$, $d = 0.96$, and BSS, $t(92) = 3.69$, $P < .008$, $d = 0.89$, than controls. Ideators scored significantly higher than controls on the BHS, $t(92) = 2.96$, $P < .008$, $d = 0.90$, and single attempters scored significantly higher than controls on the BSS, $t(92) = 2.95$, $P < .008$, $d = 0.75$. Approximately 25% ($N = 23$) of the

Table 1 Differences in study variables among controls, ideators, single attempters, and multiple attempters

Variables	Controls ($n = 42$)		Ideators ($n = 17$)		Single attempters ($n = 20$)		Multiple attempters ($n = 17$)		<i>F</i>
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Awareness	2.81	0.72	2.95	1.01	2.89	0.86	2.70	0.93	0.30
Clarity	2.32	0.61	2.74	1.01	2.57	0.84	2.73	0.98	1.68
Nonaccept	1.96	0.73	2.44	0.65	2.31	0.82	2.69	0.99	3.98*
Impulse	2.08	0.75	2.35	0.75	2.42	1.04	2.72	1.06	2.26 ⁺
Goals	2.93	0.91	3.05	1.16	3.38	1.07	3.27	1.02	1.09
Strategies	2.06	0.70	2.73	0.91	2.84	1.04	3.06	1.02	7.19**
PHQ-9 ^a	8.24	4.61	10.65	4.06	10.70	5.16	11.65	4.94	2.85*
BHS ^b	3.71	3.21	7.29	4.59	6.50	4.56	8.00	5.42	5.88**
BSS ^c	0.07	0.34	0.76	1.15	2.15	3.90	2.82	4.36	5.89**

⁺ $P < .10$; * $P < .05$; ** $P < .01$

^a PHQ-9 = Depression, as measured by the Patient Health Questionnaire-9, excluding the suicidal ideation question

^b BHS = Hopelessness, as measured by the Beck Hopelessness Scale

^c BSS = Suicidal ideation, as measured by the Beck Scale for Suicidal Ideation

sample met criteria for a mood or anxiety disorder, with diagnosis differing significantly by group, $\chi^2 = 40.85$, $P < .01$. Multiple attempters ($N = 14$; 82%) were significantly more likely to meet diagnostic criteria than single attempters ($N = 5$; 25%), ideators ($N = 2$; 12%), and controls ($N = 2$; 5%), $Z_{adj} = 6.1$, $P < .01$.

Emotion Dysregulation as a Concurrent Predictor of Suicidal Ideation

A multiple linear regression analysis was conducted to assess whether any of the six dimensions of emotion dysregulation concurrently predicted suicidal ideation, adjusting for depression symptoms and the presence of a mood or anxiety diagnosis. The six emotion dysregulation scales were entered as predictors of ideation, adjusting for depressive symptoms (PHQ-9) and the presence of a C-DISC mood or anxiety diagnosis, and only Strategies was a statistically significant predictor of ideation, $b = 1.20$, $\beta = 0.40$, $P < .05$ (with all other β s ranging from -0.09 to 0.09), and with diagnosis also associated with ideation, $b = 2.11$, $\beta = 0.32$, $P < .01$.

Hopelessness as a Mediator of the Relation Between Strategies and Suicidal Ideation

We also examined whether hopelessness would statistically mediate the relation between emotion dysregulation and suicidal ideation. Since Strategies was the only DERS scale that predicted ideation, only Strategies was included in the regression model. Mediation was established using Baron and Kenny's (1986) guidelines, which suggest that a predictor (i.e., Strategies) should be related to a mediator (i.e., hopelessness) and to an outcome (suicidal ideation), that the mediator should be associated with the outcome, and

that adjusting for the mediator should significantly reduce the relation between the predictor and the outcome, with full mediation established when the relation is reduced to 0. Significance of the indirect relation between Strategies and ideation was tested using bootstrapped confidence intervals, using $n = 1,000$ resamples, given that this technique does not assume normality of a distribution (Preacher and Hayes 2008). An indirect relation was established if its confidence interval did not include 0.

To establish whether Strategies was associated with hopelessness, a multiple linear regression was conducted in which Strategies was entered as a predictor of hopelessness (BHS), adjusting for depression symptoms and presence of a diagnosis. Strategies was significantly associated with hopelessness, $b = 1.59$, $\beta = 0.33$, $P < .01$. A hierarchical linear regression was conducted in which depressive symptoms and diagnosis were entered as predictors of ideation in the first step, Strategies was entered in the second step, and hopelessness was entered in the third step (see Table 2). Strategies significantly predicted suicidal ideation in step 2, accounting for an additional 7% of variability, $F_{change}(1,90) = 8.23$, $P < .01$. However, it did not predict ideation after accounting for hopelessness in step 3. The 95% confidence interval for the indirect relation between Strategies and suicidal ideation through hopelessness did not include 0 (95% CI = $0.05-0.90$), suggesting an indirect relation between Strategies and ideation through hopelessness.

Discussion

The present study examined the relation between Gratz and Roemer's (2004) multidimensional conceptualization of emotion dysregulation and suicidal thinking and behavior. Our first hypothesis that Strategies, Nonacceptance, and

Table 2 Hierarchical linear regression predicting suicidal ideation

Step	Predictors	<i>b</i>	SE	β	R_{Adj}	F_{Model}
1	PHQ-9 ^a	0.03	0.06	0.05	0.14**	8.73**
	Diagnosis ^{b**}	2.51	0.65	0.39		
2	PHQ-9 ^a	-0.05	0.06	-0.09	0.21**	9.03**
	Diagnosis ^{b**}	1.96	0.65	0.30		
	Strategies ^{**}	0.96	0.33	0.32		
3	PHQ-9 ^a	-0.08	0.06	-0.14	0.27**	9.76**
	Diagnosis ^{b*}	1.67	0.63	0.26		
	Strategies ⁺	0.64	0.34	0.22		
	BHS ^{c**}	0.20	0.06	0.32		

⁺ $P < .10$; * $P < .05$; ** $P < .01$

^a PHQ-9 = Depression symptoms, as measured by the Patient Health Questionnaire-9, excluding the suicidal ideation question

^b Diagnosis = Mood or Anxiety diagnosis, as measured by the C-DISC

^c BHS = Hopelessness, as measured by the Beck Hopelessness Scale

Impulse would differentiate among controls, ideators, single attempters, and multiple attempters was partially supported: significant differences among these groups were found on Strategies and Nonacceptance. However, individual group comparisons revealed that Nonacceptance differed significantly only between controls and multiple attempters, while Strategies did so between controls and single attempters and between controls and multiple attempters. Our findings thus provide evidence that Nonacceptance and Strategies may be the aspects of emotion dysregulation that most strongly distinguish non-suicide attempters from suicide attempters. The fact that both single and multiple attempters scored higher than controls on the Strategies subscale is consistent with theories suggesting that suicidal behaviors are attempts to escape negative emotions that individuals believe they cannot regulate with other strategies (Linehan 1993). However, our results did not replicate previous findings that emotion dysregulation differs among ideators and attempters (Zlotnick et al. 1997, 2003) or among single and multiple attempters (Esposito et al. 2003). The relatively small size of our sample may have limited the statistical power of the analyses to detect significant differences between these groups.

The current study also supports Weinberg and Klonsky's (2009) findings that Strategies is the emotion dysregulation dimension most strongly associated with current suicidal ideation, and it built on these findings by showing that Strategies significantly predicted current ideation, adjusting for psychiatric diagnosis and depression symptoms. In addition, hopelessness was found to statistically mediate the relation between Strategies and suicidal ideation, a finding that is consistent with Williams's (1997) model of suicidality. This account suggests that the relation between psychological variables such as Strategies and suicidality may be due to the effect that these variables have on increasing feelings of inescapability and hopelessness.

Contrary to our hypotheses, the Nonacceptance and Impulse dimensions of emotion dysregulation did not predict current suicidal ideation after adjusting for other emotion dysregulation subscales. It may be that Nonacceptance and Impulse are more strongly implicated in suicidal behavior than in ideation. Thus, while a perceived lack of access to effective regulatory strategies (i.e., Strategies) may lead an individual to think about engaging in suicidal behavior, experiencing emotions as unwanted or behaving impulsively in response to distress may increase risk of an actual suicide attempt. However, the present study does not address this possibility, and its cross-sectional nature reveals only associations, not causation. Longitudinal research examining whether dimensions of

emotion dysregulation can predict future suicidal ideation and/or behavior is needed to clarify these issues.

The present study was the first, to our knowledge, to examine the ability of Gratz and Roemer's (2004) multidimensional model of emotion dysregulation to distinguish among individuals with differing histories of suicidality and to predict concurrent ideation. Our findings support previous research indicating that emotion dysregulation is associated with suicidal thoughts and behavior (Ciarrochi et al. 2002; Tamás et al. 2007), and also indicate specific aspects of emotion dysregulation that may be most implicated in suicidality. Our findings may be particularly relevant to suicide prevention efforts for college students, a population that is at high risk for suicidal thoughts and behaviors. Prior research indicates that 24% of undergraduates have had thoughts of suicide and 5% have attempted suicide while in college (Westefeld et al. 2005).

Nevertheless, several limitations of the present study should be noted. First, although our sample was ethnically diverse, our results cannot be generalized beyond college students. It would be useful to examine emotion dysregulation in a clinical sample with more recent suicide attempts. The use of self-report measures to assess suicidality and emotion dysregulation was another limitation. Response bias may have led participants to under or over-report the incidence of past suicide attempts or the severity of current suicidal thinking, and ambiguous attempts could not be distinguished from those that involved a clear intent to die or that were medically serious. Furthermore, although clinically relevant and multidimensional, the DERS is a subjective measure that could be biased by current mood. Emotion dysregulation might be more accurately assessed with a combination of self-report and physiological or observational techniques (Cole et al. 2004; Thompson 1994). Finally, the present study did not take into consideration other variables, such as negative life events and problem-solving ability, or substance use disorders, that are also thought to influence suicidal thinking and behavior (Chan et al. 2009; Wagner and Zimmerman 2006).

Despite these limitations, the current study contributes to the literature on the relation between emotion regulation and suicidal behavior by applying a multidimensional emotion dysregulation model to the study of past suicide attempts as well as current ideation. Our results indicate that perceived limited access to emotion regulation strategies may be an aspect of emotion dysregulation that is most strongly associated with suicidal thinking, and that hopelessness may help to explain this relation. This knowledge, along with future research, may help clinicians to both identify those at risk for suicide and to provide these individuals with more effective ways of regulating their emotional distress.

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References

- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173–1182.
- Beck, A. T., & Steer, R. A. (1988). *Beck hopelessness scale manual*. San Antonio, TX: The Psychological Corporation.
- Beck, A. T., & Steer, R. A. (1993). *Beck scale for suicidal ideation*. San Antonio, TX: The Psychological Corporation.
- Brown, G. K., Beck, A. T., Steer, R. A., & Grisham, J. R. (2000). Risk factors for suicide in psychiatric outpatients: A 20-year prospective study. *Journal of Consulting and Clinical Psychology, 68*, 371–377.
- Centers for Disease Control and Prevention. (2011a). *WISQARS Fatal Injury Reports*. Retrieved October 23, 2011, from http://www.cdc.gov/injury/wisqars/fatal_injury_reports.html.
- Centers for Disease Control and Prevention. (2011b). *WISQARS Nonfatal Injury Reports*. Retrieved October 23, 2011, from <http://www.cdc.gov/injury/wisqars/nonfatal.html>.
- Ciarrochi, J., Deane, F. P., & Anderson, S. (2002). Emotional intelligence moderates the relationship between stress and mental health. *Personality and Individual Differences, 32*, 197–209.
- Cole, P. M., Martin, S. E., & Dennis, T. A. (2004). Emotion regulation as a scientific construct: Methodological challenges and directions for child development research. *Child Development, 75*, 317–333.
- Esposito, C., Spirito, A., Boergers, J., & Donaldson, D. (2003). Affective, behavioral, and cognitive functioning in adolescents with multiple suicide attempts. *Suicide and Life-Threatening Behavior, 33*, 389–399.
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment, 26*, 41–54.
- Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York: The Guilford Press.
- McKeown, R. E., Garrison, C. Z., Cuffe, S. P., Waller, J. L., Jackson, K. L., & Addy, C. L. (1998). Incidence and predictors of suicidal behaviors in a longitudinal sample of young adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 37*, 612–619.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879–891.
- Shaffer, D., Fisher, P., Lucas, C. P., Dulcan, M. K., & Schwab-Stone, M. E. (2000). NIMH diagnostic interview schedule for children version IV (NIMH DISC-IV): Description, differences from previous versions, and reliability of some common diagnoses. *Journal of the American Academy of Child and Adolescent Psychiatry, 39*, 28–38.
- Spitzer, R. L., Kroenke, K., Williams, J. B. W., et al. (1999). Validation and utility of a self-report version of PRIME-MD: The PHQ primary care study. *Journal of the American Medical Association, 282*, 1737–1744.
- Surrence, K., Miranda, R., Marroquín, B. M., & Chan, S. (2009). Brooding and reflective rumination among suicide attempters: Cognitive vulnerability to suicidal ideation. *Behavior Research and Therapy, 47*, 803–808.
- Tamás, Z., Kovacs, M., Gentzler, A. L., Tepper, P., Gáboros, J., Kiss, E., et al. (2007). The relations of temperament and emotion self-regulation with suicidal behaviors in a clinical sample of depressed children in Hungary. *Journal of Abnormal Child Psychology, 35*, 640–652.
- Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. *Monographs of the Society for Research in Child Development, 59*, 25–52.
- Wagner, B. M., & Zimmerman, J. H. (2006). Developmental influences on suicidality among adolescents: Cognitive, emotional, and neuroscience aspects. In T. E. Ellis (Ed.), *Cognition and suicide: Theory, research, and therapy* (pp. 287–308). Washington, DC: American Psychological Association.
- Weinberg, A., & Klonsky, E. D. (2009). Measurement of emotion dysregulation in adolescents. *Psychological Assessment, 21*, 616–621.
- Westefeld, J. S., Homaifar, B., Spotts, J., Furr, S., Range, L., & Werth, J. L. (2005). Perceptions concerning college student suicide: Data from four universities. *Suicide and Life-Threatening Behavior, 35*, 640–645.
- Williams, J. M. G. (1997). *Cry of pain: Understanding suicide and self-harm*. Harmondsworth, England: Penguin.
- Williams, J. M. G., Barnhofer, T., Crane, C., & Duggan, D. S. (2006). The role of overgeneral memory in suicidality. In T. E. Ellis (Ed.), *Cognition and suicide: Theory, research, and therapy* (pp. 173–192). Washington, DC: American Psychological Association.
- Zlotnick, C., Donaldson, D., Spirito, A., & Pearlstein, T. (1997). Affect regulation and suicide attempts in adolescent inpatients. *Journal of the American Academy of Child and Adolescent Psychiatry, 36*, 793–798.
- Zlotnick, C., Wolfsdorf, B. A., Johnson, B., & Spirito, A. (2003). Impaired self-regulation and suicidal behavior among adolescent and young adult psychiatric inpatients. *Archives of Suicide Research, 7*, 149–157.