History of Multiple Suicide Attempts as a Behavioral Marker of Severe Psychopathology

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Objective: Individuals with a differing number of past suicide attempts are generally considered a homogeneous group, despite emerging evidence to the contrary. The current study aimed to test the hypothesis that multiple suicide attempters would exhibit a more severe clinical profile than single suicide attempters.

Method: A series of self-report batteries and clinical interviews was administered to 39 single attempters and 114 multiple attempters who came to an urban hospital emergency room after a suicide attempt. The participants were predominantly poor and nonwhite.

Results: Multiple suicide attempters versus single attempters exhibited a greater degree of deleterious background characteristics (e.g., a history of childhood emotional abuse, a history of family suicide), increased psychopathology (e.g., depression, substance abuse), higher levels of suicidality (e.g., ideation), and poorer interpersonal functioning. Profile differences existed even after control for borderline personality disorder.

Conclusions: Results indicate that multiple attempters display more severe psychopathology, suicidality, and interpersonal difficulties and are more likely to have histories of deleterious background characteristics than single attempters. Moreover, these differences cannot be explained by the diagnosis of borderline personality disorder. Results suggest that the identification of attempt status is a simple, yet powerful, means of gauging levels of risk and psychopathology.

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It is estimated that somewhere between 200,000 and 1,000,000 Americans make nonfatal suicide attempts each year (1). Because of the magnitude of the problem, the Surgeon General outlined a plan that called for the identification of populations at high risk for suicidal behavior, the enhancement of intervention programs and services, and the advancement of relevant scientific methods (2). In accordance with the Surgeon General's recommendations to identify specific high-risk populations, the present investigation focuses on multiple suicide attempters (individuals who have made two or more suicide attempts in their lifetimes) as a unique group, distinct from single suicide attempters (individuals who have made one lifetime suicide attempt). Although investigators have tended to place all suicide attempters into a single category, several lines of research have begun to emerge that suggest that there are important differences between multiple suicide attempters and single suicide attempters.

Rudd et al. (3) provided some of the clearest findings on the topic to date. They compared 68 multiple suicide attempters to 128 single suicide attempters (and to 134 suicide ideators) and found that multiple suicide attempters displayed elevated suicidal ideation, depression, hopelessness, and perceived stress, as well as poorer social problem-solving skills. Additionally, multiple suicide attempters had a greater number of axis I diagnoses, as well as an earlier onset of the first psychiatric disorder. In related work conducted in Canada, Reynolds and Eaton (4) compared 364 single suicide attempters to 99 multiple suicide attempters (defined as three or more attempts). They found that multiple suicide attempters were more likely to have had family histories of suicidal behavior, showed poorer coping histories, and demonstrated a longer duration of psychiatric symptoms, alcohol and drug abuse, and depression. Differences between multiple suicide attempters and single suicide attempters also have been found in adolescent populations, with multiple suicide attempters consistently demonstrating greater levels of psychopathology (5–7).

The purpose of the present research was to replicate and extend previous work on adult multiple suicide attempters by examining a group of recent suicide attempters. In accordance with previous findings, it was predicted that multiple suicide attempters would exhibit greater severity of psychopathology (depression, hopelessness, substance abuse, psychosis, and number of axis I diagnoses), suicidality (ideation, intent, lethality, and reaction to attempt), and interpersonal deficits than single suicide attempters. The present study extends previous work in several important respects, such as by using a group that is more representative of the typical adult suicide attempter seen in urban psychiatric settings in the United States. The study by Rudd et al. (3) included only young adults on active duty in the military who had no psychotic disorders or serious

substance abuse problems. The present group of suicide attempters was obtained from a large urban hospital and included virtually all individuals between ages 18 and 65 who entered the emergency room within 48 hours of making a suicide attempt, including those with psychosis or substance abuse problems. Second, the present study included an expanded range of variables on which multiple and single attempters could be compared. Third, the current study allowed for the examination of differences between multiple and single suicide attempters, with control for a diagnosis of borderline personality disorder. If differences between multiple suicide attempters and single suicide attempters emerge even when borderline personality disorder status is controlled, then the importance of considering multiple suicide attempters as a unique subgroup of individuals is heightened.

Replication and extension of this research is important because the identification of multiple suicide attempters is a potentially powerful clinical tool that has not yet been well developed. If the findings are replicated, the status of multiple suicide attempters could function to represent an important general marker of serious behavioral dysfunction in a broad number of domains. In contrast to many other psychiatric classifications (such as a diagnosis of borderline personality disorder) that are complex, time-intensive, and frequently unreliable (8, 9), the assessment of whether or not a patient has made multiple suicide attempts is a simple behavioral indicator that can be readily assessed. Of great clinical use would be the ability to quickly and consistently identify a subpopulation of suicidal patients who are particularly likely to be experiencing high levels of psychopathology, are at high risk for future suicidal behaviors, and are in strong need of focused clinical attention.

Method

Participants

A total of 153 participants took part in the research, 114 of whom were classified as multiple suicide attempters and 39 of whom were single suicide attempters. The mean age of the participants was 33.61 years (SD=9.45, range=18–64). Fifty-seven percent of the participants were female, and ethnic group membership was primarily African American (63%) and white (28%), with the remaining 9% considering themselves Latino, Asian American, Native American, or unspecified. The participants tended to be from an impoverished area of a large city, and 80% reported annual incomes of less than $20,000. The most common primary diagnoses were as follows: major depression with (24%) and without (54%) psychotic features, bipolar I with (5%) and without (5%) psychotic features, bipolar II (3%), schizoaffective disorder (5%), and dysthymia (1%).

Procedure

The participants were part of a large treatment outcome study that evaluated a brief cognitive therapy intervention for reducing subsequent suicide attempts (10). Individuals who came to the emergency room of a large urban hospital after having made a suicide attempt (a self-injurious behavior with a demonstrated intent to die) were identified and approached for participation in

the study by a trained bachelor's-level research assistant. The only exclusion criteria were that the participant was 1) under 16 years of age, 2) unable to understand the study procedures and to give informed consent, 3) had a significant medical impairment that would limit participation (such as dementia), or 4) unable to provide at least one contact person to ensure that they could be tracked for follow-up assessments. The eligible patients (N=246) were provided with a complete description of the larger treatment outcome study, and written informed consent was obtained from those who agreed to participate (N=153, 62%). As soon as logistically possible after the index suicide attempt, a trained diagnostician conducted an extensive intake assessment on each participant, for which the subject was paid $50. In addition, the participants completed a series of self-report measures and a demographic form that gathered, among other variables, years of education.

Clinician-Administered Measures

The participants were diagnosed with the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID) (11). The SCID has good interrater reliability and validity (12). In addition, clinicians screened the participants for borderline personality disorder with the appropriate section of the Structured Clinical Interview for DSM-IV Personality Disorders (13). When the participants' diagnostic formulations were unclear, they were discussed in a case conference until a consensus was reached.

The 24-item Hamilton Rating Scale for Depression (14) was administered by clinicians to rate the severity of depression. The Hamilton has good reliability and construct and predictive validity (15). The highest level of psychiatric, occupational, and social functioning achieved by the participant in the past year was assessed during the clinical interview and assigned a numeric value (0=severe impairment in functioning to 100=superior functioning) from the Global Assessment of Functioning Scale (GAF) (axis V of DSM-IV, p. 32).

The 19-item Scale for Suicide Ideation (16) evaluates the intensity of the patient's specific attitudes, behaviors, and plans to commit suicide. Each item consists of three options graded according to the intensity of the suicidality and rated on a 3-point scale ranging from 0 to 2. To address skewness, scores were recomputed by using a natural log transformation. The Suicide Intent Scale (17) is a 15-item interviewer assessment of the intensity of the attempter's wish to die (e.g., the expectation of fatality, precautions made against discovery). The authors report good internal consistency, interrater reliability, and concurrent, discriminant, and predictive validity for the Scale for Suicide Ideation and Suicide Intent Scale (18–20). A nonsummed item of the Suicide Intent Scale, "reaction to attempt," measures the respondents' retrospective attitudes toward their suicide attempt and was used as an indicator of the degree to which individuals maintained an accepting, rather than a rejecting, attitude toward their recent suicide attempt. In this item, the interviewer assigned a score as follows: 0=sorry about the attempt, feels foolish or ashamed; 1= accepts both attempt and failure; and 2=regrets failure of attempt. Finally, the Lethality Scale (20) was used to measure the medical lethality of a suicide attempt, as reported by participants, on a scale from 0 to 10 (e.g., from "fully conscious and alert" to "comatose, all reflexes absent, respiratory depression with cyanosis or circulatory failure and shock or both"). There are eight separate scales, according to the method of the suicide attempt (by shooting, jumping, drug overdose, etc.).

As part of the diagnostic assessment, the clinicians gave the participants a General Relationship Difficulties score of 0 (no or minimal relational difficulties) or 1 (moderate to severe difficulties) based on the clinicians' analysis of the degree to which participants were currently facing relational conflict, instability, and estrangement.

TABLE 1. Demographic and Clinical Characteristics of Multiple and Single Suicide Attempters

Characteristic	Attempter Status				Analysis					
	Multiple (N=114)		Single (N=39)		ANOVA			MANCOVA[a]		
	Mean	SD	Mean	SD	F (df=1, 140)	p	η^2	F (df=1, 139)	p	η^2
Continuous measures										
Age (years)	34.34	8.33	31.60	11.88	2.27	0.13	0.02	2.81	0.10	0.02
Education[b]	2.88	0.96	3.03	0.99	0.64	0.43	0.01	0.67	0.41	0.01
					Chi-Square Test			Logistic Regression[a]		
	N	%	N	%	χ^2 (df=1)	p	Odds Ratio	Wald χ^2 (df=1)	p	Odds Ratio
Dichotomous variables										
Male gender	50	43.9	16	41.0	0.95	0.76	1.12	0.80	0.37	1.42
Nonwhite ethnicity	85	74.6	26	66.7	0.91	0.34	1.47	1.25	0.26	1.60
Unemployed[c]	81	71.7	18	50.0	5.76	0.02	2.53	3.80	0.05	2.20
Childhood sexual abuse[d]	38	36.2	8	22.2	2.38	0.12	1.99	1.35	0.25	1.71
Childhood emotional abuse[e]	69	65.7	14	36.8	9.55	<0.001	3.29	6.90	0.01	1.88
Family history of mental illness or substance abuse[f]	60	66.7	12	34.3	10.82	<0.001	3.83	6.87	0.01	3.13
Family history of suicide attempt[g]	44	40.7	8	21.1	4.75	0.03	2.58	4.31	0.04	2.56

[a] Covariate: borderline personality disorder status.
[b] Coded on a 5-point scale: 1=6th grade or less, 2=7th–11th grade, 3=high school graduate, 4=some college, 5=college degree, 6=graduate school.
[c] Multiple: N=113, single: N=36.
[d] Multiple: N=105, single: N=36.
[e] Multiple: N=105, single: N=38.
[f] Multiple: N=90, single: N=35.
[g] Multiple: N=108, single: N=38.

Self-Report Measures

Psychopathology. Depression was measured with the 21-item Beck Depression Inventory (21). Each of the items consists of four statements (scored from 0 to 3) reflecting increasing levels of severity for a particular symptom of depression. The participants' hopelessness was tapped by the Beck Hopelessness Scale (22), which consists of 20 true-false statements designed to assess the extent of positive and negative beliefs about the future. The Beck Depression Inventory and the Beck Hopelessness Scale demonstrate excellent psychometric properties (21–23).

The 25-item revised Social Problem-Solving Inventory (24) was used to measure the respondents' abilities to define social problems, generate alternative solutions, make decisions, and implement solutions. Preliminary studies indicate excellent test-retest and internal reliabilities and good concurrent validity (24).

The 12-item Psychiatric History Form asks the respondent to answer basic questions about his or her own and their family members' histories of mental illness, suicide, substance abuse, and psychiatric treatment. In addition, it asks a series of yes-or-no questions about histories of sexual and emotional abuse. A separate item asks about current employment.

Analysis Plan. The primary goal of the present investigation was to compare multiple suicide attempters to single suicide attempters on four broad variable domains: 1) background characteristics, including variables for demographic, family, and psychosocial histories; 2) psychopathology; 3) suicidality; and 4) interpersonal functioning.

Comparisons between dichotomous variables were conducted by using chi-square analyses, and those between continuous variables were evaluated by means of multivariate analyses of variance (MANOVAs). In order to minimize list-wise deletion of missing data, separate MANOVAs were conducted for each of the four clusters of continuous variables: background (age, education), psychopathology (score on the Beck Depression Inventory, the Hamilton depression scale, the Beck Hopelessness Scale, and the GAF, plus comorbidity), suicidality (score on the Scale for Suicide Ideation and the Suicide Intent Scale, lethality, acceptance), and

interpersonal functioning (score on the Social Problem-Solving Inventory, relationship difficulties).

Another series of analyses (i.e., multivariate analyses of covariance for continuous variables and logistic regression for dichotomous variables), exactly paralleling those just described, were performed in which borderline personality disorder status was added as a covariate in order to rule out the possibility that multiple attempt status is simply a marker for borderline personality disorder. Indeed, recurrent suicidal behavior is one of nine diagnostic criteria listed for borderline personality disorder in the DSM-IV, and borderline personality disorder and chronic suicidality are related conceptually in that both are theorized to stem from problem-solving and emotional-regulation deficits (25–29). Further bolstering the need to control for borderline personality disorder in the present analyses is the finding that multiple suicide attempters were, in fact, far more likely to receive the diagnosis (41.23%) than were single suicide attempters (15.38%) in this group (χ^2=8.57, df=1, p<0.01).

Although age and multiple suicide attempter status are potentially confounded (older individuals have had more time in which to make suicide attempts), the relationship between age and attempt status was not significant (Table 1). As a check, however, all analyses were repeated with control for age, and the results were virtually unchanged.

Results

Background Characteristics

As shown in Table 1, comparisons between multiple suicide attempters and single suicide attempters did not yield significant differences in age, education, gender, or ethnicity. Hence, the differences observed between the groups cannot be accounted for by demographic variables. Multiple suicide attempters were more likely to be unemployed than were single suicide attempters, high-

TABLE 2. Psychopathology Ratings of Multiple and Single Suicide Attempters

Clinical Variable	Attempter Status				Analysis					
	Multiple (N=107)		Single (N=38)		ANOVA			MANCOVA[a]		
	Mean	SD	Mean	SD	F (df=1, 143)	p	η^2	F (df=1, 142)	p	η^2
Continuous measures										
Score on Beck Depression Inventory	34.69	13.54	24.77	13.08	15.18	<0.001	0.10	8.45	0.01	0.05
Score on Hamilton Rating Scale for Depression	29.46	10.00	24.12	10.85	6.46	0.01	0.04	3.21	0.08	0.02
Score on Beck Hopelessness Scale	12.39	5.83	9.17	5.78	10.42	<0.001	0.07	7.05	0.01	0.05
Number of axis I DSM-IV diagnoses	2.91	1.00	2.26	1.03	13.00	<0.001	0.08	7.39	0.01	0.05
Score on Global Assessment of Functioning scale	46.96	16.80	56.45	14.07	12.40	<0.001	0.08	8.83	<0.001	0.06
	Multiple (N=114)		Single (N=38)		Chi-Square Test			Logistic Regression[a]		
	N	%	N	%	χ^2 (df=1)	p	Odds Ratio	Wald χ^2 (df=1)	p	Odds Ratio
Dichotomous variables										
Substance abuse diagnosis	81	71.1	21	53.8	3.87	0.05	2.10	3.12	0.08	2.00
Psychotic diagnosis	49	43.0	4	10.3	13.75	<0.001	6.60	10.55	<0.001	6.33

[a] Covariate: borderline personality disorder status.

lighting the overall picture of dysfunction expected to emerge in this group.

As predicted, multiple attempters were also more likely to report deleterious characteristics in their histories. Specifically, multiple suicide attempters were approximately twice as likely as single suicide attempters to report histories of childhood emotional abuse (66% versus 37%), family mental illness or substance abuse (67% versus 34%), and suicide attempts among family members (41% versus 21%). As shown in Table 1, parallel analyses using logistic regression yielded similar results and effect sizes, even with borderline personality disorder added as a covariate. Although more multiple suicide attempters reported histories of sexual abuse than single suicide attempters, this difference was not significant.

Psychopathology

The pattern of results shown in Table 2 provides strong support for our hypothesis that multiple suicide attempters would show greater psychopathology than single suicide attempters. The overall MANOVA for psychopathology variables was significant (F=5.48, df=5, 139, p<0.001), and thus was followed up by individual analyses of variance (ANOVAs). Self-reported depression and hopelessness were significantly greater in multiple suicide attempters than in single suicide attempters, and the magnitude of the difference (η^2=0.07–0.10) suggests that multiple suicide attempters are considerably more depressed and hopeless than are single suicide attempters. Similarly, clinicians' ratings of depression, using the Hamilton depression scale, were significantly higher for multiple suicide attempters than for single suicide attempters.

Diagnostic comorbidity, as measured by the number of axis I diagnoses assigned by clinicians, was greater in multiple suicide attempters than in single suicide attempters. Furthermore, GAF scores were significantly lower in multiple suicide attempters than in single suicide attempters.

Chi-square analyses indicated that multiple suicide attempters, in comparison with single suicide attempters, were more likely to receive a diagnosis of substance abuse and were four times more likely to receive a diagnosis of psychotic disorders (43.0% versus 10.3%). Of importance, as shown in Table 2, nearly all differences between the two groups remained significant, even in the logistic regression analysis, which controlled for borderline personality disorder, suggesting that elevated psychopathology in the multiple suicide attempter group is not simply a reflection of greater proportions of multiple suicide attempters receiving diagnoses of borderline personality disorder.

Suicidality

In order to evaluate the prediction that multiple suicide attempters would demonstrate greater suicidality than single suicide attempters, a MANOVA was performed on the four indices of suicidality and was found to be significant (F=4.49, df=4, 135, p<0.01). As shown in Table 3, the results of individual ANOVAs indicated that multiple suicide attempters had significantly greater intensity of suicidal ideation at the time of the interview and considerably greater (η^2=0.10) acceptance of their most recent suicide attempt. The relationship between attempt status and acceptance also can be viewed categorically; 66% of single suicide attempters versus 28% of multiple suicide attempters indicated that they regretted (e.g., felt "sorry about") their most recent attempt. The effects of attempt status on ideation and acceptance remained significant when borderline personality disorder was controlled in the logistic regression analysis. In contrast to ideation and acceptance, scores for suicidal intent and lethality were virtually equivalent between the two groups (η^2=0.00).

Interpersonal Functioning

The hypothesis that multiple suicide attempters would demonstrate poorer interpersonal functioning than sin-

TABLE 3. Suicidality Ratings of Multiple and Single Suicide Attempters

Measure of Most Recent Attempt	Attempter Status				Analysis					
	Multiple (N=103)		Single (N=37)		MANOVA			MANCOVA[a]		
	Mean	SD	Mean	SD	F (df=1, 138)	p	η^2	F (df=1, 137)	p	η^2
Score on Scale for Suicidal Ideation	1.45	1.31	0.88	1.13	5.46	0.02	0.04	3.77	0.05	0.03
Scores on Suicide Intent Scale										
Total	15.72	4.38	15.55	5.27	0.04	0.84	0.00	0.12	0.73	0.00
Lethality Scale score	3.31	2.30	3.43	1.89	0.08	0.77	0.00	0.04	0.84	0.00
Acceptance of attempt	1.11	0.80	0.51	0.69	15.92	<0.001	0.10	11.04	<0.001	0.08

[a] Covariate: borderline personality disorder status.

TABLE 4. Interpersonal Functioning of Multiple and Single Suicide Attempters

Measure of Interpersonal Functioning	Attempter Status				Analysis					
	Multiple (N=111)		Single (N=38)		MANOVA			MANCOVA[a]		
	Mean	SD	Mean	SD	F (df=1, 147)	p	η^2	F (df=1, 146)	p	η^2
Social problem solving	44.45	18.85	56.33	18.31	13.40	<0.001	0.08	8.56	<0.001	0.06
Relationship difficulties	1.54	1.00	1.11	0.95	5.51	0.02	0.04	3.03	0.08	0.02

[a] Covariate: borderline personality disorder status.

gle suicide attempters was supported by overall MANOVA results (F=8.01, df=2, 146, p<0.001). As shown in Table 4, the results of individual ANOVAs indicated that multiple suicide attempters had poorer self-reported and clinician-rated social problem-solving abilities, with the effects remaining (a tendency in the case of social problem solving) even after control for borderline personality disorder status.

Discussion

Building on prior work (3, 4), we predicted that crucial differences would emerge in the clinical profiles of single suicide attempters versus multiple suicide attempters. Our findings strongly support this prediction. As compared to single suicide attempters, multiple suicide attempters displayed higher levels of depression and hopelessness, met criteria for more DSM-IV axis I diagnoses, were at a particularly high risk for being diagnosed with substance abuse and psychotic disorders, were more likely to be diagnosed with borderline personality disorder, and were rated as having poorer global functioning in the year before their suicide attempt. Multiple suicide attempters also displayed greater suicidal ideation and had a more accepting attitude toward their suicide attempts, although the degree of suicidal intent and the lethality of the attempts were not found to be higher. Multiple suicide attempters were more likely to be unemployed and had poorer social problem-solving skills and more relational difficulties. Multiple suicide attempters also were more likely to report having experienced emotional abuse as children and having family members with histories of mental illness and suicide. Additionally, no significant differences emerged between multiple suicide attempters and single suicide attempters in terms of age, gender, education, and ethnicity, suggesting that the importance of multiple attempt status holds across various demographic subpopulations. Moreover, the findings largely held when we controlled for a diagnosis of borderline personality disorder; thus, multiple attempter status is not simply a marker for borderline personality disorder.

It is important to note that when they were compared to the general population, single suicide attempters display greater psychopathology and dysfunctionality than nonattempting ideators (3). However, the magnitude and robustness of the differences between the multiple suicide attempters and the single suicide attempters are striking and support the premises that those with histories of multiple attempts should be considered as a unique subgroup of suicide attempters and that this behavior represents a behavioral marker for particularly impaired functionality across a broad number of domains.

Study findings suggest further avenues for investigation and have implications for both theory and treatment. A particularly important conclusion that can be drawn from this and prior studies is that repeated instances of nonlethal suicidal behavior should not be dismissed as nonserious or of no consequence. Rather, this behavior is indicative of particularly severe psychopathology and of high risk for future suicidal behavior. In terms of theory, researchers should begin to focus on understanding the causal nature of the relationship between psychopathology and multiple attempt status, i.e., whether high levels of psychopathology tend to cause people to make repeated suicide attempts, whether the reverse is true, or whether the relationship is, in fact, transactional.

The finding that multiple suicide attempters are more than four times as likely as single suicide attempters to have a psychotic diagnosis, while not inconsistent with previous findings (30), is striking and bears further discussion. In this group, nearly all psychotic diagnoses are mood-related (i.e., major depressive, bipolar, and schizoaffective disorders). Thus, it might be hypothesized that the powerful link between psychotic diagnosis and attempt status is simply because those receiving the psychotic diagnoses are much more depressed. However, a

post hoc analysis of the data revealed that the association remains strong, even after control for the level of depression. One possibility is that psychotic symptoms (e.g., hallucinations) produce misery and suffering that increase the likelihood of a suicide attempt.

Beck's theory of modes (31) offers a theoretical framework for conceptualizing repeated suicidal behavior in cognitive terms. Modes are defined as interconnected networks of cognitive, affective, motivational, physiological, and behavioral schemas that are activated simultaneously by relevant environmental events and result in goal-directed behaviors. When the suicidal mode is activated, individuals experience suicide-related cognitions, negative affect, and the motivation to engage in suicidal behavior (32). When an individual repeatedly engages in suicidal behavior, the suicidal mode becomes highly accessible in memory and requires minimal triggering stimuli to be activated (33).

In terms of treatment, the different clinical profiles of multiple suicide attempters and single suicide attempters suggest potentially different treatment regimens. Effective interventions for multiple suicide attempters should focus on decreasing hopelessness, depression, suicidal ideation, and acceptance of attempt behavior and increasing social problem solving, general relational skills, and appropriate use of other social and medical services. Moreover, clinicians can facilitate multiple suicide attempters' understandings of triggering internal and external events as well as the key cognitions occurring at the time of the attempts, thus potentially deactivating the suicidal mode and averting self-destructive behavior. Interventions of these types already exist (10, 34, 35), and preliminary results of clinical trials have demonstrated success in decreasing subsequent suicide attempts (35–37). As important differences between multiple suicide attempters and single suicide attempters continue to be delineated in future research, especially in terms of developmental origins, interventions can be further tailored to the unique clinical profile of multiple suicide attempters as well as toward prevention of future suicidal behavior.

A number of study limitations should be considered in evaluating the findings discussed. First, the group was constrained in terms of suicide status (all were recent attempters) and by virtue of self-selection (only those who agreed to participate in a larger treatment outcome study), perhaps limiting generalizability. Additionally, as noted by other authors (3), categorizations of multiple versus single attempters represent a single point in time, and some unknown portion of the single attempter group will become multiple attempters. Future research goals might include determining the stability of the single attempter group and identifying factors that predict which individuals become multiple attempters. A related issue concerns the question of whether attempter status is better conceived of as a continuous versus a categorical variable. While simply dividing individuals into single and multiple attempters has

been demonstrated to be a powerful assessment tool, it is quite possible that dividing the population of attempters into more finely grained groups would be useful (e.g., single, double, and triple or more). Overall, an understanding of the multiple attempt group would be greatly enhanced by future research that makes use of longitudinal data enabling the exploration of causal relationships between attempt status and psychopathology, interpersonal functioning, and suicidal thoughts and behavior. Our research team is currently following this group of suicide attempters in an attempt to shed light on these questions.

In conclusion, the current study demonstrates that individuals with histories of multiple suicide attempts have a particularly severe clinical profile characterized by an extremely high degree of psychopathology, suicidality, and interpersonal dysfunction. As such, multiple attempters are likely to be at high risk for future suicidal behavior and are in great need of clinical intervention. On this basis, we argue that an essential element of suicidal assessment should be a history of multiple suicide attempts versus a single attempt. This simple, easy to assess variable can then be used to help guide risk assessment, case conceptualization, treatment planning, and intervention design and refinement.

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