Relationships between Dialectical Behavior Therapy, psychiatric emergency room visits, and suicide attempts: A secondary analysis

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Abstract

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Previous research has demonstrated a strong relationship between inpatient psychiatric hospitalization and subsequent death by suicide, and recent research suggests that this correlation may extend to include psychiatric emergency room (ER) visits as well. Additionally, although Dialectical Behavior Therapy (DBT) minimally employs the use of these forms of crisis management, this intervention characteristic and its impact on DBT's effectiveness have gone unstudied. Thus we performed secondary analyses in the context of a large DBT RCT (n = 101) to explore the relationships between DBT, psychiatric ER visits utilized during the treatment year, and suicide attempts that occurred during the year of follow-up assessment. Using the SASII to assess suicide attempts, the SBQ to measure suicide ideation, and the THI to assess ER visits, negative binomial GLM analyses demonstrated that (1) pre-treatment psychiatric ER visits

predicted treatment-year ER visits (2) only treatment-year ER visits predicted suicide attempts during follow-up and (3) treatment condition dropped to non-significance in predicting follow-up suicides when treatment-year ER visits were included in the model. This study provides evidence that, in this population and treatment context, pre-existing clinical severity is unlikely to explain the relationship between psychiatric ER utilization and subsequent suicide. Implications of the findings are discussed.

Relationships between Dialectical Behavior Therapy, psychiatric emergency room visits, and suicide attempts: A secondary analysis

A growing body of evidence suggests a strong correlation between traditional forms of crisis care, like inpatient hospitalization, and a high risk for suicide. For instance, a recent analysis of death records in Denmark between the years of 1981 and 1997 revealed that 37% of males and 57% of females who died by suicide had histories of inpatient hospitalization for suicidality (Qin & Nordentoft, 2005). The same study found that, controlling for various demographic variables, the risk of death by suicide in the first week post-discharge from inpatient hospitalization was 100 times greater than matched controls for men and 246 times greater for women. Additionally, one study showed that patients meeting criteria for borderline personality disorder (BPD) who died by suicide had been hospitalized significantly more frequently than patients meeting criteria for BPD who had not died by suicide (Kullgren, 1988). Finally, a more recent study showed that those who had any emergency room contact for psychiatric reasons were nearly 30 times more likely to die by suicide than were those who had no contact with psychiatric care and, furthermore, that those who had been admitted to a hospital were nearly 45 times more likely to die by suicide than no contact controls (Hjorthoj, Madsen, Agerbo, & Nordentoft, 2014). Thus, contact with emergency psychiatric care – specifically forms of psychiatric care traditionally employed in response to suicidal crises – demonstrates increased risk for death by suicide.

Although these relationships are well established in the literature, explanations for the phenomena that give rise to the relationships are rare, and we are unaware of currently available data that are able to distinguish between competing hypotheses. For instance, one hypothesis articulated in the literature suggests that the relationships are explainable by pre-existing clinical

risk (Hjorthoj et al., 2014). In other words, it is possible that that those most likely to die by suicide are also the most likely to utilize services like the emergency room and inpatient hospitalization. An alternative hypothesis also articulated in the literature suggests that, for some individuals, services like inpatient hospitalization may play a more direct role in the increased risk observed post-discharge – that factors inherent to these traditional forms of crisis care may potentially causally contribute to increasing risk for suicide and that the relationship is not better explained by pre-admission clinical risk. Researchers have found, for instance, that psychiatric hospitalization in particular is often described as a frightening or demoralizing experience that can simultaneously induce an acute sense of abandonment (Thibeault, Trudeau, d'Entremont, & Brown, 2010; Lovell, 1995; for a more thorough review, see Large & Ryan, 2014). Given their correlational and/or cross-sectional nature, however, the currently available data are unable to distinguish between these hypotheses.

One potentially useful framework for investigating the relationships between traditional forms of crisis care (e.g., inpatient hospitalization and emergency room visits) and suicide is Dialectical Behavior Therapy (DBT). DBT is an evidence-based principle-driven approach to treating highly suicidal individuals that incorporates individual therapy, group skills training, and phone coaching for suicidal crises (Linehan, 1993a). Not only has DBT demonstrated remarkable efficacy in reducing the frequency of suicidal behavior (e.g., Linehan et al., 2006; McMain et al., 2009; Kriem, Kroger, & Kosfelder, 2010), but clients receiving DBT services are also significantly less likely than those in comparison treatments to employ the use of inpatient hospitalization and/or emergency room visits during their time in treatment (e.g., Linehan & Heard, 1999) and after treatment is completed (e.g., Linehan et al., 2006). This characteristic of DBT has yet to be studied, however, and it is currently unknown whether or not DBT's ability to

reduce inpatient hospitalization and/or emergency room visits contributes to its effectiveness in reducing suicidal behavior.

The current investigation aimed to use the study of DBT to examine the relationships between traditional forms of crisis service utilization, like emergency room visits, and suicide attempts. In order to characterize the relationships with the highest degree of scrutiny, we strove to include potential confounding variables that could serve as plausible prospective predictors for subsequent suicide attempts and emergency room utilization. Specifically, given that previous research has identified these variables as predictors of suicidal behavior, we chose to include the number of prior suicide attempts (Miranda, Ortin, Scott, & Shaffer, 2014; Borges et al., 2006), number of prior NSSI episodes (Whitlock, Muehlenkamp, Eckenrode, et al., 2012), prior hospitalizations or ER visits (Luxton, Trofimovich, & Clark, 2013), suicidal ideation (Nock, Borges, Bromet, et al., 2009), presence or absence of a suicide plan (Nock, Borges, Bromet, et al., 2009), and availability of means to attempt suicide (Yip, Caine, Yousuf, et a.., 2012) as data-driven variables that could explain relationships that predict future suicidal behavior. In conducting secondary analyses on data that were collected in the context of a large RCT evaluating the efficacy of DBT in comparison to a tightly controlled comparison condition (Linehan, Comtois, Murray, et al., 2006), we hypothesized the following: (1) There will be no variables at pre-treatment that predict crisis services utilization during the treatment-year. (2) Treatment-year crisis services utilization will predict suicide attempts during the follow-up period even when controlling for pre-treatment clinical variables. (3) When controlling for between-condition differences in crisis services utilization, DBT will still demonstrate a significant direct effect on suicide attempts during the follow-up period such that DBT remains predictive of fewer suicide attempts.

Method

Participants

Participants included 101 adult women (*M* = 29.3 years, *SD* = 7.5 years) who met criteria for BPD according to the International Personality Disorders Examination (Loranger, 1995) and the Structured Clinical Interview for DSM-IV (First, Spitzer, Gibbons, Williams, & Benjamin, 1996). Exclusion criteria included: (1) the presence of any psychotic disorder, bipolar disorder, or any severe developmental disability (2) severe seizure disorders requiring medication management (3) additional problems requiring immediate attention, and (4) court referral to treatment. Participants were randomized to receive either DBT (n = 52) or community treatment by experts (CTBE; n = 49), a treatment delivered non-behavioral community members nominated as experts in treating women with BPD (Linehan et al., 2006). The majority of the sample was white (87%), was unmarried (87%), had received less than a bachelor's degree (76%), and made less than $30,000 in annual income (90%; see table 1). By design, there were no significant differences between condition on any pre-treatment demographic or clinical variable (Linehan et al., 2006).

Assessment Instruments

Suicide Attempts and NSSI. The Suicide Attempt Self-Injury Interview (SASII) is an in-person interview designed to assess the topography, suicide intent, and medical severity of each episode of non-suicidal self-injury (NSSI) or suicide attempt, and total numbers of suicide attempts and NSSI episodes for each assessment point are embedded within this data. This measure has demonstrated excellent psychometric properties, with adequate validity demonstrated by comparison with rigorous collateral measures and strong inter-rater reliability

scores ranging from "good" to "excellent" (Linehan, Comtois, Brown, Heard, & Wagner, 2006; Linehan et al., 2006).

Crisis Service Utilization. The Treatment History Interview (THI; Linehan, unpublished work, 1987) was used to assess and quantify participants' experiences with various forms of treatment, including psychotherapy, case management, medication use, and crisis care utilization like inpatient hospitalization and psychiatric emergency room visits. Because only 29 participants utilized inpatient hospitalization during the treatment year at least once, we chose to extract data from this assessment detailing the total numbers of emergency room (ER) visits that occurred for psychiatric reasons during a given assessment period as a proxy for crisis services utilization.

Suicidal Ideation. The Suicidal Behaviors Questionnaire (SBQ; Linehan, unpublished work, 1981) is a 34-item self-report measure that was administered at pre-treatment to assess an array of suicide-relevant information. For the purposes of this study, 3 items were extracted and summed to create a sub-score intended to include information that would be most likely to predict suicidal behavior. Specifically, we included an item assessing ideation in the past year ("How often have you thought about killing yourself in the last year?"), with answers ranging from 0 (*Not at all*) to 4 (*Very often*); an item that assessed the presence or absence of a current suicide plan ("Do you currently have a plan for how you would go about killing yourself if you decided to do it?"), with answers ranging from 0 (*No*) to 2 (*Yes, a definite plan*); and an item that assessed the presence or absence of current access to lethal means for attempting suicide ("If you decided to kill yourself at this point in your life, would the means for carrying out such an action be available to you?"), with answers ranging from 0 (*No*) to 2 (*Yes, definitely*). These items demonstrated adequate internal consistency in this study ($\alpha = .63$).

Intervention Characteristics

Dialectical Behavior Therapy (DBT) is a multi-modal treatment that includes weekly individual therapy (1hr/week), group skills training (2.5hrs/week), phone coaching as needed for clients, and a weekly therapist consultation team meeting designed to enhance therapist fidelity and skill as well as reduce burnout. Adherence was assessed using the DBT Global Rating Scale (Linehan, unpublished, 2003) to code randomly selected sessions on a 5-point scale, with a rating of 4.0 or higher indicating an adherent DBT session. Coders were trained to reliability by the treatment developer, and adherence scores were obtained from 571 sessions, ranged from 2.5 to 4.8, and demonstrated a mean score of 4.0 (*SD* = 0.2).

The community treatment by experts (CTBE) condition was designed to control for factors inherent to delivering expert psychotherapy that were uncontrolled in previous studies. Specifically, therapists in the CTBE condition were matched to therapists in the DBT condition based on the following characteristics: expertise, allegiance to treatment provided, availability of clinical supervision groups, institutional prestige, assistance finding a therapist, availability of affordable and sufficient treatment hours, therapist gender, therapist training, and therapist clinical experience. Fuller descriptions of each of these characteristics, as well as how they were controlled in the study, can be found in the original RCT (Linehan et al., 2006). Participants randomized to DBT received significantly more therapy from study therapists, largely because of weekly skills training and DBT's superior retention rates (reported in the original RCT), but there were no significant differences in terms of total hours of therapy received when non-study provided treatment hours (e.g., case management, inpatient, etc.) were included in analyses.

Study Procedures

Participants were provided informed consent and were randomized to condition using a computerized adaptive minimization randomization procedure, which matched participants to condition on: (1) lifetime self-injurious episodes, including suicidal and non-suicidal (2) lifetime psychiatric hospitalizations (3) whether participants had a history of only suicide attempts, only non-suicidal self-injury, or a history of both kinds of behavior (4) participant age and (5) scoring higher than a 30 on the Beck Depression Inventory or below a 45 on the Global Assessment of Functioning (Linehan et al., 2006). All participants were assigned to receive one year of treatment, and clinical assessments were completed at baseline and every four months thereafter, up to and including a 1-year follow-up. Assessments at each time point were administered by trained assessors who were blind to treatment condition, and the interclass correlation coefficient for all assessment ratings ranged from .74 to 1.00.

Data Analysis Plan

First, dummy coding was used to indicate whether or not a participant received DBT. Because outcomes were in the form of highly skewed count data, we considered recoding outcomes into dichotomized variables indicating the presence or absence of an event. However, given that suicide attempts and ER visits were relatively low base-rate events in our sample, stability became an issue when outcomes were dichotomized. Thus, we chose to keep data in the form of count variables.

Many participants reported no occurrence of either suicide attempts or psychiatric ER visits during a given assessment period. However, there was not a preponderance of zeros in either outcome, so zero-inflated models were deemed inappropriate. Thus, we evaluated fit for both Poisson generalized linear model (GLM) and Negative Binomial GLM statistical models, which were evaluated for all research questions, and compared these models against linear GLM,

which was expected to be a poor fit for the data. Final model selection was determined using Akaike information criteria (AIC) and Bayesian information criteria (BIC), with better-fitting models yielding comparatively lower values for the information criteria. Using these guidelines, Negative Binomial GLM was deemed the best fitting model across analyses. Finally, to make results interpretable, negative binomial regression coefficients were exponentiated to produce incidence risk ratios (IRRs), with values above 1 indicating a higher likelihood of an event-related outcome with increasing levels of a predictor, and values below one indicating a lower likelihood of an event-related outcome with increasing levels of a predictor.

Results

We first sought to understand whether being assigned to the DBT condition resulted in fewer psychiatric emergency room (ER) visits across the treatment year and fewer suicide attempts during the follow-up year than those assigned to CTBE. Half of patients across conditions (N = 48) visited the ER for psychiatric reasons at least once during the treatment year, and the average number of ER visits across conditions was 1.30 (SD = 2.14, range = 0-13). Within the DBT condition, approximately 42% of patients (N = 22) visited the ER for psychiatric reasons at least once during the treatment year, and the average number of treatment-year ER visits was less than 1 (M = 0.77, SD = 1.10, range = 0-4). Within the CTBE condition, approximately 58% of patients (N = 26) visited the ER for psychiatric reasons at least once in the treatment year, and the average number of such ER visits was 1.88 (SD = 2.81, range = 0-13). A Mann-Whitney U test assuming non-normality in count data found that clients in the DBT condition visited the ER for psychiatric reasons significantly less often than those in the CTBE condition, U = 1,402.5, p = .044. Similarly, 31.2% of patients across conditions attempted suicide at follow-up (21.6% DBT, 42.2% CTBE), and a Mann-Whitney U test found that

participants in the DBT condition attempted suicide significantly less often during the follow-up period, U = 1,368, p = .048. Descriptives are more thoroughly detailed in table 2.

To test whether any variables at pre-treatment predicted psychiatric emergency room visits during the treatment-year, a cross-condition negative binomial GLM was used to regress the number of psychiatric ER visits during the treatment year onto number of pre-treatment suicide attempts, number of pre-treatment NSSI episodes, number of pre-treatment psychiatric ER visits, and pre-treatment suicidal ideation intensity as measured by the SBQ. This model fit the data well, X^2 (87, N = 92) = 83.52, p = .96, AIC = 279.03, and was superior to the intercept-only model, X^2 (4, N = 92) = 20.01, p < .001. Only pre-treatment psychiatric ER visits emerged as a significant predictor of treatment-year ER visits such that each additional treatment-year ER visit was associated with a 19% increased risk of an additional psychiatric ER visit during the treatment year, b = .178, Wald X^2 = 8.43, p = .004, IRR = 1.19. Notably, neither pre-treatment suicide attempts (b = .009, Wald X^2 = .004, p = .95, IRR = 1.01) nor past NSSI (b = .007, Wald X^2 = 1.45, p = .23, IRR = 1.01) significantly predicted treatment-year ER visits (see table 3). Because pre-treatment ER visits predicted treatment-year ER visits, it was included as a covariate in all subsequent analyses.

To test whether treatment-year ER visits uniquely predicted suicide attempts in the follow-up period, we ran a cross-condition negative binomial GLM regressing number of suicide attempts between treatment-end and a 12-moth follow-up onto the number of treatment-year ER visits, treatment-year suicide attempts, and pre-treatment ER visits. This model fit the data well, X^2 (91, N = 95) = 92.00, p = .751, AIC = 180.74, and was superior to the intercept-only model, X^2 (3, N = 95) = 30.33, p < .001. Moreover, although treatment-year suicide attempts approached statistical significance as a predictor of follow-up suicide attempts (b = .16, Wald X^2 = 2.90, p =

.09, IRR = 1.17), only the number of treatment-year ER visits (b = .32, Wald X^2 = 17.04, p < .001, IRR = 1.38) significantly predicted the number of suicide attempts in the follow-up period (see table 4). Specifically, for each additional ER visit within the duration of the treatment year, a participant had a 38% increased risk for an additional suicide attempt in the follow-up year.

To replicate the finding that receiving DBT is predictive of fewer suicide attempts during the follow-up period, we ran a negative binomial GLM regressing number of follow-up period suicide attempts onto treatment condition and found that being assigned to the CTBE condition was associated with nearly doubled risk of having at least one additional follow-up suicide attempt, b = .69, p = .043, IRR = 1.99. Finally, to test whether DBT remained predictive of fewer suicide attempts during the follow-up period if differences in treatment-year ER visits was statistically modeled, we ran a negative binomial GLM in which number of follow-up suicide attempts was regressed onto treatment condition (DBT vs. CTBE) with the number of pre-treatment ER visits, treatment-year ER visits, and treatment-year suicide attempts as covariates, and this model fit the data well, X^2 (90, N = 95) = 93.91, p = .758, AIC = 182.65, and was superior to the intercept-only model, X^2 (4, N = 95) = 30.42, p < .001. This model produced similar results to the model described above with treatment condition excluded – only treatment-year ER visits predicted suicide attempts during the follow-up period (b = .32, Wald X^2 = 15.04, p < .001, IRR = 1.37), and treatment condition was not a significant predictor of follow-up suicide attempts when controlling for these other variables (b = .12, Wald X^2 = .09, p = .76, IRR = 1.13; see table 5).

Discussion

The aim of this study was to investigate the relationships between psychiatric emergency room visits, suicide attempts, and DBT in a sample of highly suicidal adult women with BPD. To

that end, we tested (1) whether pre-treatment variables predicted treatment-year ER visits (2) whether treatment-year ER visits predicted suicide attempts during the follow-up year and (3) whether DBT remained a significant predictor of fewer follow-up suicide attempts when controlling for between-condition differences in treatment-year psychiatric ER visits. Although pre-treatment psychiatric ER visits predicted treatment-year psychiatric ER visits, only psychiatric ER visits during the treatment year predicted suicide attempts during the follow-up year. Furthermore, contrary to our hypotheses, treatment condition no longer remained a significant predictor of suicide attempts during the follow-up period when treatment-year psychiatric ER visits were included in the model, suggesting that the factors contributing to DBT's efficacy in reducing suicidal behavior is captured in the variance attributable to treatment-year psychiatric ER visits.

These findings are noteworthy in several ways. Specifically, these analyses are the first to our knowledge to demonstrate result patterns that are inconsistent with the hypothesis that the relationship between psychiatric emergency service utilization and suicide is explainable by pre-existing clinical risk. Should data continue to accrue that conflicts with this hypotheses, other explanations – including the explanation posited by Large et al. (2013) that factors inherent to these forms of crisis management may causally contribute to increases in suicide risk – must be considered and subjected to more rigorous empirical testing. Additionally, these results provide a preliminary glance at a previously unstudied intervention characteristic of DBT – specifically, its tendency to reduce inpatient hospitalization and psychiatric emergency room visits during and after treatment. The finding that DBT's superiority to the comparison condition in terms of suicide attempts was reduced to statistical non-significance when controlling for differences in treatment-year ER visits is striking, but it invites further investigation.

Because we were unable to control for all possible confounds and thus isolate the specific effects of individual variables, it is unclear what constructs are captured in the variance attributable to treatment-year psychiatric ER visits. It is possible, for instance, that this variable is serving as a proxy for some other third variable that may be driving DBT's success in reducing suicidal behavior. For instance, it is possible that increasing global skills use, which has previously been shown to both statistically mediate suicide outcomes (Neacsiu et al., 2010), may increase one's behavioral repertoire in a suicidal crisis and thus make one less likely to rely on the use of forms of care like psychiatric ER visits. Additionally, research on the relationship between problem-solving deficits and suicidal behavior suggests that active problem-solving, in which an individual acts with agency in taking steps to solve their own problems, may buffer against future suicidal behavior and that passive problem-solving, in which an individual acts as though the environment will solve their problems on their behalf, may be related to increased risk for suicidal behavior (Linehan, Camper, Chiles, et al., 1987; Linda, Marroquin, & Miranda, 2012; Quinones, Jurska, Fener, & Miranda, 2015). Given that DBT conceptualizes suicidal behavior as attempted solutions to problems in living (Linehan, 1993a), it is also possible that, by decreasing reliance on forms of environmental crisis management like psychiatric ER visits and increasing reliance on self-directed crisis management strategies through the use of DBT skills, active problem-solving capabilities may be cultivated that combat the need for suicidal behavior as a problem-solving strategy. Our data are not amenable to exploring these potential relationships, however, so future investigation into possible third variables is needed.

Several characteristics of the study and the analyses are important to consider when interpreting the results. Because all of the participants in our sample met criteria for BPD, the generalizability of our result patterns is unclear. In the treatment manual for DBT, Linehan

(1993a) specifically posits the possibility that the temporary stability offered by forms of emergency care like inpatient hospitalization may be unintentionally reinforcing for highly suicidal individuals with BPD whose lives may be characterized by chaos. It is unknown whether or not these result patterns would extend to suicidal individuals whose clinical presentation did not include the pervasive emotion dysregulation characteristic of those meeting criteria for BPD. Additionally, because these analyses incorporated data collected in the context of a single RCT examining DBT's effectiveness, it is unknown whether these result patterns would replicate across numerous investigations of DBT, and it is also unknown whether these result patterns extend beyond DBT. If it is found, for instance, that these types of result patterns replicate across numerous efficacious interventions for suicidal behavior, then different conclusions – and different hypotheses regarding potential mechanisms of action – could be drawn.

The potential clinical implications of this research warrant careful consideration. Although our data should not be interpreted to mean that psychiatric ER visits are either definitively harmful or are harmful in the context of all possible clinical presentations, our results highlight the empirical possibility that forms of crisis management like psychiatric ER utilization may for some suicidal individuals be iatrogenic, and ignoring this possibility may be ill-advised. As Lilienfeld (2007) articulated nearly a decade ago, psychologists have paid relatively little attention to treatments that have the potential to cause harm, and given the regularity with which inpatient hospitalization and psychiatric ER visits are employed in the management of acute suicidal crises as standards of care, rigorous empirical evaluation of these forms of care is necessary. Such investigations are needed to inform, expand, and qualify our understanding of the relationships preliminarily articulated in our study, and at a minimum, replication is sorely needed before strong conclusions can be drawn regarding the quality and the strength of the

relationships between inpatient hospitalization, psychiatric emergency room visits, suicide attempts, and DBT.

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Table 1

Baseline Demographic Characteristics

Variable	DBT Group (n = 52)	CTBE Group (n = 49)	Total (*N* = 101)
Age in years, mean ± SD	29.0 ± 7.3	29.6 ± 7.8	29.3 ± 7.5
Race, White (%)	86.5	87.7	87.0
Single, divorced, or separated (%)	88.4	85.7	87.2
Education, College Graduate or Above (%)	25.0	22.4	23.8
Annual Income, >30,000 (%)	9.6	10.2	9.9

Note: No values were statistically significant between treatment conditions. Analyses were conducted using the *t* test and Mann-Whitney test as appropriate.

Table 2

Descriptive of variables over the course of the treatment-year and follow-up

Variable	Pre-Treatment/Lifetime *M (SD)*	Treatment-Year *M (SD)*	Follow-up Year *M (SD)*
DBT Condition (n = 52)			
Suicide Attempts, Total	0.45 (0.64)	0.98 (1.46)	0.41 (0.92)
NSSI Episodes, Total	10.37 (23.31)	14.17 (37.63)	5.43 (6.19)
Number of Psychiatric ER Visits, Total	2.08 (2.42)	0.78 (1.10)	0.72 (2.10)
Suicidal Ideation, SBQ 3-Item Score	5.67 (1.88)	NA	NA
CTBE Condition (n = 49)			
Suicide Attempts, Total	0.87 (1.53)	1.37 (1.87)	0.82 (1.66)
NSSI Episodes, Total	13.94 (38.52)	18.94 (40.73)	15.93 (60.96)
Number of Psychiatric ER Visits, Total	2.51 (3.31)	1.89 (2.81)	0.50 (0.95)
Suicidal Ideation, SBQ 3-Item Score	5.91 (1.83)	NA	NA

Notes: No values were statistically significant between treatment conditions at pre-treatment. The SBQ was not administered during treatment-year or follow-up assessments.

Table 3

Prediction of Treatment-Year ER Visits from Pre-Treatment Variables Across Conditions

Variable	B	SE B	IRR	*p*-value
Pre-Tx Suicide Attempts, Total	.009	.15	1.01	.95
Pre-Tx NSSI Episodes, Total	.007	.006	1.01	.23
Pre-Tx Psychiatric ER Visits, Total	.18**	.06	1.19	.004
Pre-Tx Suicidal Ideation, SBQ 3-item Score	.13	.08	1.14	.11

Note: *$p < .05$. **$p < .01$. ***$p < .001$.

Table 4

Prediction of Follow-up Suicide Attempts Across Conditions

Variable	B	SE B	IRR	*p*-value
Treatment-Year Psychiatric ER Visits, Total	.32***	.08	1.38	<.001
Treatment-Year Suicide Attempts, Total	.16	.10	1.17	.09
Pre-Tx Psychiatric ER Visits, Total	-.01	.06	.99	.84

Note: *$p < .05$. **$p < .01$. ***$p < .001$.

Tables 5

Prediction of Follow-up Suicide Attempts with Treatment Condition

Variable	B	SE B	IRR	*p*-value
Treatment-Year Psychiatric ER Visits, Total	.32***	.08	1.37	<.001
Treatment-Year Suicide Attempts, Total	.17	.10	1.19	.09
Pre-Tx Psychiatric ER Visits, Total	-.01	.06	.99	.83
Treatment Condition, Dichotomous	.12	.39	1.13	.76

Note: *$p < .05$. **$p < .01$. ***$p < .001$.