Available online at www.sciencedirect.com

ScienceDirect

Cognitive and Behavioral Practice 28 (2021) 224–240

Cognitive and Behavioral Practice

www.elsevier.com/locate/cabp

Brief Cognitive–Behavioral Therapy for Suicidal Inpatients

Gretchen J. Diefenbach, *The Institute of Living and Yale University School of Medicine*
Michael David Rudd, *University of Memphis*
Lori F. Merling, Carolyn Davies and Benjamin W. Katz, *The Institute of Living*
David F. Tolin, *The Institute of Living and Yale University School of Medicine*

Suicide risk is elevated in psychiatric patients following discharge from inpatient care. Despite this vulnerability, there has been limited research investigating suicide prevention protocols that take into account the unique system characteristics of this setting (e.g., short lengths of stay, crisis stabilization treatment model, multidisciplinary team coordination). Cognitive-behavioral therapy (CBT) has demonstrated efficacy for improving suicide risk in outpatients, but has not been validated with inpatients. The current study was a treatment development and pilot feasibility open trial that modified brief cognitive-behavioral therapy (BCBT) for an inpatient setting (BCBT-I). Key treatment modifications included administering up to 10 sessions (depending on patient length of stay), daily, and in a standardized order, with core crisis management skills introduced during the first three sessions. In addition, coordination with the inpatient treatment team was included in BCBT-I implementation. Six adult inpatients with a recent suicide attempt enrolled and completed an average of 4.67 BCBT-I sessions (SD = 1.36). The treatment was highly acceptable (Client Satisfaction Questionnaire total score M = 3.49, SD = 0.73). Pre- to posttreatment effect sizes demonstrated improvements in suicidal ideation (d = 0.97), depression (d = 1.33), and suicidal implicit associations (d = 1.28). All but one of the participants (83%) completed follow-up assessments 1-, 2-, and 3-months postdischarge. Over follow-up, two participants reported suicidal ideation (both without intent), and none reported suicide attempts, preparatory acts or behaviors, or nonsuicidal self-injury. This study provided preliminary evidence supporting the feasibility of CBT to treat suicidal inpatients. Future research is needed to validate BCBT-I in a larger, randomized controlled trial to determine whether BCBT-I reduces suicide risk beyond that afforded by inpatient treatment alone.

Suicide is one of the top 10 causes of death in the United States (Heron, 2013), with as many as 5% of Americans making a suicide attempt in their lifetime (Kessler et al., 1999). For those who have attempted suicide, the rate of death by suicide within 1 year is nearly 100 times that of nonattempters (Tidemalm et al., 2015). Patients with psychiatric disorders, particularly depression, are at an elevated risk for suicide (Hawton et al., 2013), and approximately one third of all suicides by individuals with mental disorders occur in the 90 days following hospitalization (Huisman et al., 2011). In this highest-risk group of recently discharged depressed inpatients, the suicide rate is 235.1 per 100,000 person years, compared with 14.2 per 100,000 person years in the U.S. general population (Olfson et al., 2016). Despite the elevated suicide risk present among inpatients, there has been limited research on suicide prevention treatments in this setting.

Cognitive-behavioral therapy (CBT) is a collaborative and skills-based form of psychotherapy that has been shown to reduce suicidal ideation and behavior in outpatients (D'Anci et al., 2019; Hepp et al., 2004; Mann et al., 2005; Mewton & Andrews, 2016; Tarrier et al., 2008). Though specific protocols vary, typical interventions include problem-solving training (Salkovskis et al., 1990), cognitive restructuring (Brown et al., 2005), and training in emotion regulation skills (Linehan, 1991). Crisis planning is another common aspect of CBT suicide prevention protocols. First introduced by Rudd et al. (2000), the crisis

[1] Now at Rogers Behavioral Health, Miami, FL
[2] Now at University of Massachusetts-Amherst
[3] Now at University of Wisconsin-Milwaukee

Keywords: suicide; treatment; hospitalized; cognitive behavioral

response plan outlines steps to follow in the event of a suicidal crisis. Warning signs, coping behaviors, social supports, and emergency services are included in the plan with instructions on how best to implement each step. The crisis response plan was revised by Stanley and Brown (2012) to include means restriction counseling and renamed the safety plan. When used as a stand-alone intervention, safety planning has been shown to reduce suicidal behavior following discharge from emergency services (Bryan et al., 2017; Stanley et al., 2018) and is currently being evaluated in a randomized controlled trial (RCT) against enhanced usual care (EUC) in an inpatient setting (Ghahramanlou-Holloway et al., 2014).

Brief contact intervention is another suicide prevention strategy utilized across a variety of settings, including following discharge from inpatient level of care (Falcone et al., 2017; Ghanbari et al., 2015). This treatment involves sending messages to the patient expressing concern and caring in order to foster personal connections and to provide the patient with social support. Methods and timing of contact vary widely, but may include telephone calls, postcards, letters, e-mails, or text messages, continuing from several months to several years. Despite early positive results indicating that brief contacts reduced death by suicide (Motto & Bostrom, 2001), the subsequent evidence base has been inconsistent: Some meta-analyses support its efficacy (Riblet et al., 2017), while others do not (Milner et al., 2015).

Other studies have investigated the efficacy of more intensive postdischarge interventions, also with mixed results. CBT strategies (e.g., safety planning, emotion regulation) delivered via peer support (Pfeiffer et al., 2019) or mobile apps (Kennard et al., 2018) have demonstrated feasibility, although suicidal outcomes in these studies were either not reported or failed to reach statistically significant effects compared with usual care. The Attempted Suicide Short Intervention Program (ASSIP; Michel et al., 2017) administers three sessions of CBT (e.g., narrative assessment, case conceptualization, safety planning) followed by letters sent to patients over 2 years. An RCT conducted with patients who experienced a recent suicide attempt (at least some of whom began the intervention during inpatient level of care) found that ASSIP lowered the risk of repeat suicide attempt over follow-up in comparison with treatment as usual (TAU; Gysin-Maillart et al., 2016). The Inpatient Suicide Intervention and Therapy Evaluation (INSITE) trial (Haddock et al., 2016) tested a CBT intervention (adapted from Tarrier et al., 2013) in addition to TAU against TAU alone with inpatients reporting suicidal ideation or attempt within 3 months of admission. The INSITE intervention involved 20 sessions beginning once or twice weekly during inpatient stay and then continuing weekly after discharge. While a recent feasibility RCT of the INSITE protocol did not report suicide outcomes specifically, the rate of serious adverse events, which included self-harm incidents, was similar across groups (Haddock et al., 2019).

There have also been recent efforts to investigate suicide prevention treatments developed for administration during the course of inpatient stays. Preliminary studies have shown that motivational interviewing (Britton et al., 2020), help sheets to identify high-risk situations and more adaptive behavioral responses (O'Connor et al., 2017), gratitude diaries (Ducasse et al., 2019), and emotion-focused skills training (Bentley et al., 2017) do not improve suicide-related outcomes. Ghahramanlou-Holloway and colleagues (2020; LaCroix et al., 2018) developed post-admission cognitive therapy (PACT), which was adapted for inpatients from cognitive therapy for suicide prevention (Brown et al., 2002, 2005). PACT includes up to six individual therapy sessions administered over 3 days. Interventions include psychoeducation, case conceptualization, safety planning, strategies to instill hope and improve coping skills, and relapse prevention. In two preliminary RCTs, participants receiving PACT in addition to usual care experienced a higher rate of clinically significant improvements in emotional symptoms (e.g., depression, hopelessness), but there were no significant group differences in suicidal behaviors over a 3-month follow-up.

As outlined above, several inpatient suicide prevention treatments have been explored in recent years. However, weak and/or inconsistent results for improving suicide behaviors during the high-risk postdischarge period highlight the need for additional treatment development and validation. The aim of the current study was to adapt an empirically supported outpatient suicide prevention protocol for use in an inpatient setting, and to report preliminary data on feasibility and outcomes. We chose to adapt brief CBT (BCBT; described in detail below), developed by Rudd et al. (2000), given evidence that this protocol reduces suicide attempts by 60% (Rudd et al., 2015), and demonstrated the strongest effect on improving suicidal behavior in a meta-analysis of outpatient CBT interventions (Mewton & Andrews, 2016). Feasibility was assessed primarily through patient acceptance (i.e., recruitment and retention rates, as well as client satisfaction). Posttreatment outcomes for suicidality and depression are reported as well as 1-, 2-, and 3-month follow-up data on suicidality. It was hypothesized that BCBT adapted for an inpatient setting

(BCBT-I) would be acceptable and associated with improvements in suicidality and depression. It was further hypothesized that improvements in suicidality would be maintained over a 3-month postdischarge follow-up.

Outpatient Brief Cognitive–Behavioral Therapy

BCBT was developed based upon the fluid vulnerability theory (Rudd, 2006) that proposes that an individual's suicide risk varies as a function of the interaction of life stress and personal predispositions toward suicidality. Predispositions are enduring traits that confer suicide risk, such as age, gender, poor emotion regulation skills, negative beliefs, poor problem-solving skills, substance use, and trauma history. The fluid vulnerability theory proposes that the individual experiences activation of the "suicide mode" when confronted with a stressful triggering event that exceeds the individual's coping resources. The suicide mode is a constellation of state-like cognitive, behavioral, emotional, and physical patterns associated with an acute suicidal crisis—for example, depression, anxiety, hopelessness, behavioral withdrawal, and suicidal behaviors (e.g., making a will, researching suicide method) might spiral an individual toward a suicide attempt during activation of the suicide mode. BCBT is designed to address modifiable aspects of predispositions to reduce the baseline risk level, and to bolster coping resources to prevent suicide attempts if the suicide mode is activated.

BCBT is an individual outpatient treatment administered once weekly typically for 12 weeks with the primary goal of preventing suicide attempts. Treatment plans are developed collaboratively with the patient based upon an individualized case conceptualization, but follow an overarching structure of three treatment phases: behavioral predispositions, cognitive predispositions, and relapse prevention.

Many patients entering into BCBT will have experienced recent acute suicidal crises. Thus, after initial psychoeducation, case conceptualization, and treatment planning, interventions targeting behavioral predispositions to deactivate the suicide mode are utilized. In Session 1 of BCBT all patients create a crisis response plan. As described above, the crisis response plan outlines warning signs, coping behaviors, social supports, and emergency services to be used in the event of a suicidal crisis. For approximately four more sessions, behavioral predispositions are targeted using some or all of the following interventions depending upon the individualized treatment plan: means restriction counseling, crisis support plan (i.e., involving a significant other to support the patient in implementing BCBT), stimulus control/sleep hygiene, relaxation skills training, mindfulness skills training, reasons for living list, and survival kit (described in detail below). By the end of this treatment phase, the patient will have gained self-regulation and problem-solving skills and should be experiencing decreased distress and deactivation of the suicide mode.

The second phase of treatment, which typically lasts for five sessions, targets cognitive predispositions. Suicide beliefs related to themes, such as hopelessness, being a burden, self-loathing, guilt, and shame, are addressed using cognitive reappraisal. Negative automatic thoughts are identified, as well as antecedents and consequences. Reappraisal questions, such as "Is this belief helpful?" and "What is something else I could tell myself in the future in a similar situation?" prompt the identification of alternative thoughts and the interrelationship among alternative thoughts, emotions, and behaviors. Additional cognitive therapy sessions utilize Socratic questioning to target cognitive distortions (e.g., jumping to conclusions, mind reading, emotional reasoning) and core beliefs (e.g., "I am worthless"). This treatment phase may also include activity planning to boost mood through behavioral activation and coping cards (described in detail below) to increase accessibility of cognitive and behavioral coping skills that the patient can use to prevent activation of the suicide mode and subsequent suicide attempts.

BCBT concludes with approximately two sessions of relapse prevention. This final treatment phase begins once patients have become proficient in the cognitive-behavioral skills introduced earlier, and entails imaginal rehearsal of previous and hypothetical future suicidal crises along with practicing BCBT skills.

Method

Adapting BCBT for an Inpatient Setting

BCBT-I was adapted from the BCBT treatment manual published by Bryan and Rudd (2018). While the inpatient manual included the same conceptual framework and skill content as the outpatient version, modifications were made to enhance feasibility and efficacy within the typical system characteristics of inpatient settings (e.g., brief lengths of stay, short-term stabilization treatment models, multidisciplinary treatment team). These key areas for adaptation were identified through literature review, our personal experience, and consultation with inpatient administrators and staff. Specific manual content revisions were completed by G.J.D. and reviewed by M.D.R. and D.F.T. for input and final approval.

Length of Stay

A 3-month-long intervention as described in outpatient BCBT is not feasible for an inpatient setting. In addition, length of stay is highly variable, often with substantial uncertainty surrounding discharge dates. Thus, BCBT-I was administered daily Monday–Friday for up to 10 sessions (depending on date of discharge). Relatedly, sessions were administered in a fixed order to make the treatment as efficient as possible (e.g., to eliminate time being spent on treatment planning rather than treatment intervention).

Crisis Stabilization Model

The inpatient level of care aims to stabilize acute psychiatric distress and suicide risk. Given evidence that treatment components directly targeting suicidal thoughts and actions are most efficacious for reducing suicide risk (Mewton & Andrews, 2016), BCBT-I was structured to include crisis management session content into the first three sessions. These "core" treatment elements were termed "Phase I" and included psychoeducation of the CBT treatment model; developing an individualized case conceptualization, crisis response plan, means restriction, reasons for living list, survival kit, and coping cards. As such, Phase I of BCBT-I included interventions targeting both behavioral and cognitive predispositions as outlined in BCBT. In line with the crisis stabilization model, interventions selected for Phase I were also those that were most likely to be implemented effectively without extensive practice for mastery. Phase II comprised seven sessions of behavioral and cognitive skills targeting more general psychiatric distress: sleep hygiene, relaxation, mindfulness, cognitive restructuring, and activity planning. Given that skills were introduced daily, with limited time for practice, it was not expected that mastery of these skills would occur prior to discharge—rather, these skills were included as an introduction and to provide an opportunity for the patient to continue to practice skills after leaving the hospital. In BCBT, the final relapse prevention sessions were designed to reinforce skill practice. Again, because discharge was variable and the extent of practice in the hospital may be limited, for BCBT-I, relapse prevention was incorporated in whichever session was final and included a review of material covered to date without imaginal practice.

Multidisciplinary Team

BCBT-I does not occur in isolation—rather, this intervention is one part of a multidisciplinary treatment plan that may include any combination of pharmacotherapy, group therapy, case management/individual therapy, rehabilitation therapy, recreation therapy, vocational counseling, family therapy, and collaboration with outside providers. As such, limitations to confidentiality were stressed during the informed consent process—for example, participants were informed that as part of the treatment team, the clinician would be sharing information with the patient's other inpatient providers and that this information could impact the patient's length of stay. Communication with the treatment team was not defined by the manual, but included participating in rounds and consultations with attending psychiatrists. To improve feasibility, the clinician routinely consulted with nursing staff regarding scheduling to ensure private room availability and facilitate patient attendance (e.g., in the open trial described below, nursing staff would sometimes wake a patient in time for his or her session with the therapist if the patient was sleeping). The BCBT-I clinician also provided feedback to the inpatient clinician following meetings about session content, homework assigned, and pertinent clinical risk factors assessed. Case managers or other inpatient clinicians are typically in contact with family for coordination of care. In order to facilitate consistent family communication during the inpatient stay, family involvement in BCBT-I specifically was omitted. When involvement of family members was indicated (e.g., in the process of means restriction), this recommendation was provided to the person on the inpatient treatment team responsible for coordinating family consultations. Last, no specific contacts during the postdischarge period were included as part of the treatment manual—however, standard of care at the hospital where this study took place includes telephone calls to all patients within 24 hours of discharge. During this call, case managers assess safety and determine whether or not patients have obtained prescribed medications and/or attended follow-up appointments.

Participants

Six participants were enrolled in the study (see Table 1 for demographic and clinical characteristics). Eligibility criteria included adults (ages 18–65, inclusive) who made a suicide attempt within 1 week of hospital admission. Admission was defined as admission to either the medical floor (in cases where medical stabilization was required) or to the psychiatric inpatient unit (in cases where medical stabilization was not required). A suicide attempt was defined as self-directed behavior that deliberately resulted in injury or the potential for injury for which there was evidence, whether explicit or implicit, of intent to die. Participants were excluded for lifetime schizophrenia spectrum disorder, intellectual disability, or organic

Table 1
Demographic and clinical characteristics

Case	Age	Sex	Racial identity	Number of prior attempts	Method	Admission status	Diagnoses	Number of BCBT-I sessions
1	24	F	Black	2	1	Inv	OSDD	4
2	58	F	White	1	1	Vol	MDD	3
3	38	F	White	1	1, 2	Vol	MDD, PTSD	5
4	18	F	White	3	1, 2	Inv	OSDD	7
5	21	F	Hispanic	2	1	Vol	OCD, SAD, PD, agoraphobia, bipolar II	4
6	42	F	White	1	2	Vol	MDD	5

Note. Method 1 = medication overdose; Method 2 = cutting or stabbing self; BCBT-I = brief cognitive-behavioral therapy–inpatient; Inv = involuntary admission; Vol = voluntary admission; OSDD = other specified depressive disorder; MDD = major depressive disorder; PTSD = posttraumatic stress disorder; OCD = obsessive–compulsive disorder; SAD = social anxiety disorder; PD = panic disorder.

brain illness; current mania; or any other psychiatric or medical condition that would preclude informed consent or participation in the trial. Participants were also excluded if they were not fluent in English or were receiving electroconvulsive therapy. Presence of current substance use disorder (SUD) may be associated with attenuated CBT outcome (Vujanovic et al., 2017; Worthington et al., 1996). Therefore, in order to collect preliminary pilot data that would not be impacted by this potential treatment moderator, patients with current SUD were excluded.

Measures

Diagnostic Measure

Diagnostic status was assessed using the Diagnostic Interview for Anxiety, Mood, and Obsessive-Compulsive and Related Neuropsychiatric Disorders (DIAMOND; Tolin et al., 2018), a semistructured interview for DSM-5 psychiatric disorders. The DIAMOND assesses for a wide range of DSM-5 disorders that allows for determining diagnostic inclusion/exclusion criteria, as well as characterization of the study sample. In addition to anxiety, mood, and obsessive–compulsive and related disorders, the DIAMOND assesses for SUDs, trauma- and stressor-related disorders, schizophrenia spectrum and other psychotic disorders, feeding and eating disorders, somatic symptom and related disorders, and a subset of neurodevelopmental disorders (tic disorders and attention-deficit/hyperactivity disorder). The DIAMOND shows very good to excellent interrater reliability (κ range = 0.60–1.00) and good to excellent test–retest reliability (κ range = 0.59–1.00) across all diagnoses.

Suicidality

Suicidal ideation/intent and behavior were assessed using the Columbia-Suicide Severity Rating Scale (C-SSRS; Posner et al., 2011). In the current study, the lifetime version of the C-SSRS was administered at pretreatment to assess both the total number of behaviors ever present, as well as the number of behaviors present in "the week before admission." At subsequent assessments, the "since last visit" version was administered with the time frame for "since admission" at posttreatment, and "since the last meeting with you" at follow-up assessments. Four subscales, as described by Posner and colleagues, were extracted: Severity, Intensity, Behavior, and Lethality. The Severity subscale is a single-item scale describing the nature of suicidal thoughts, including intent: 1 (*wish to be dead*), 2 (*nonspecific active suicidal thoughts*), 3 (*suicidal thoughts with methods*), 4 (*suicidal intent*), and 5 (*suicidal intent with plan*). The Intensity subscale comprises five items assessing the characteristics of suicidal ideation (frequency, duration, controllability, deterrents to intent and/or attempt, and reason for the ideation). The Intensity subscale scores range from 2 to 25 and demonstrate adequate internal consistency (α = 0.73; Posner et al., 2011). The Behavior subscale indicates whether or not suicidal behaviors (e.g., aborted attempt, actual attempt) occurred. The Lethality subscales describe the nature of actual attempts. Actual Lethality is rated on a 6-point scale ranging from 0 (*no physical damage or very minor physical damage*) to 5 (*death*), and Potential Lethality is rated on a 3-point scale ranging from 0 (*behavior not likely to result in injury*) to 2 (*behavior likely to result in injury*). The C-SSRS shows good interrater reliability and multimethod agreement (Gwaltney et al., 2017; Hesdorffer et al., 2013; Youngstrom et al., 2015), as well as moderate agreement with other measures of suicidality (Hesdorffer et al., 2013; Madan et al., 2016; Posner et al., 2011) and sensitivity to change across treatment (Posner et al., 2011).

Depressive Symptoms

Clinician-rated severity of depression was assessed using the 17-item Hamilton Rating Scale for Depression (HRSD; Hamilton, 1960). The Structured Interview Guide for the HRSD (SIGH-D; Williams, 1988) was used to enhance reliability (Moberg et al., 2001).

Implicit Association Test

The Implicit Association Test (IAT; Nock et al., 2010) is a brief computer-administered test that uses patients' reaction times when classifying semantic stimuli to measure the automatic mental associations they hold about life and death. The IAT used in the current study required participants to classify stimuli representing the constructs of "death" (i.e., die, dead, deceased, lifeless, and suicide) and "life" (i.e., alive, survive, live, thrive, and breathing), and the attributes of "me" (i.e., I, myself, my, mine, and self) and "not me" (i.e., they, them, their, theirs, and other). Response latencies for all trials were recorded. The relative strength of each participant's association between "death" and "me" was indexed by calculating a *D* score; positive *D* scores represent a stronger association between death and self (i.e., faster responding on the "death"/"me" blocks relative to the "life"/"me" blocks), and negative scores represent a stronger association between life and self. In a study of emergency room patients, those who had attempted suicide showed a significantly stronger implicit association between death and self than did patients who had not attempted suicide. Moreover, the implicit association of death with self was associated with an approximately sixfold increase in the odds of making a suicide attempt in the next 6 months, exceeding the predictive validity of known risk factors (e.g., depression, suicide attempt history) and both patients' and clinicians' predictions (Nock et al., 2010).

Client Satisfaction

Treatment acceptability was measured in part using the Client Satisfaction Questionnaire (CSQ; Nguyen et al., 1983) an eight-item self-report measure. Items on the CSQ assess perceived quality and effectiveness of services, satisfaction with services, whether participants would return for similar treatment, and whether they would recommend this treatment to others. Each item is rated from 1 to 4 with higher numbers indicating higher satisfaction. Items are averaged for a total score. The CSQ demonstrates good internal consistency and correlates with alternative satisfaction measures (Attkisson & Greenfield, 1999).

Likelihood of BCBT-I Skill Use

During treatment, patients were asked to rate the likelihood that they would utilize the BCBT-I skills. Ratings were made on a scale from 0 (*not at all likely*) to 10 (*very likely*).

Procedure

Study procedures were approved by the Hartford HealthCare Institutional Review Board and the study was listed on ClinicalTrials.gov (Registration Number: NCT03442699). Participants were identified from the admission logs of a large private psychiatric hospital. Eligibility criteria were documented through electronic record review followed by consultation with the attending psychiatrist. Eligible participants were approached by research staff on the second day or later of their stay and invited to participate in the trial. Participants provided written informed consent prior to enrollment in the study. For patients who were admitted to the hospital involuntarily, documentation of competency to provide consent was also completed. The DIAMOND was conducted to confirm that diagnostic eligibility criteria were met. Then participants completed the C-SSRS, SIGH-D, and IAT administered by a postdoctoral fellow under the supervision of a licensed psychologist. Participants then received up to 10 daily sessions of BCBT-I (depending on length of stay), lasting 1.5 hours for the first session and 1 hour for the remaining sessions. The treatment was administered by a predoctoral psychology intern who had completed training in BCBT with M.D.R., and who was supervised by D.F.T. with weekly consultation from M.D.R. Audiotapes were made of each session and were all rated for treatment fidelity using a standardized checklist by a licensed clinical psychologist who was also trained in the protocol by M.D.R.. Treatment fidelity was $\geq$ 90% for all sessions. Within 24 hours of discharge, patients completed a posttreatment assessment that included the C-SSRS, SIGH-D, IAT, and CSQ. The C-SSRS was also completed by phone during follow-up assessments 1-, 2-, and 3-months postdischarge.

BCBT–I Case Example

Karla (pseudonym) was a 24-year-old Black woman who was admitted involuntarily to a psychiatric hospital following a suicide attempt by medication overdose. Karla attended four sessions of BCBT-I. She presented as motivated and readily engaged in treatment. Session excerpts are presented below from Karla's first three sessions to illustrate the content and process of the "core" suicide prevention strategies in BCBT-I.

Session 1

As part of Session 1, the therapist conducted a narrative assessment of the suicide attempt preceding Karla's admission to the hospital. Information gathered during the narrative assessment (see excerpts below) was used to develop Karla's case conceptualization (see Fig. 1).

THERAPIST (T): The next thing that I want to talk about is what brought you in here. I know that you recently had an attempt, and I was hoping that you'd be willing to tell me your story about what happened.

PATIENT (P): Okay, so this is the thing—this is not my first suicide attempt. There were two previous ones, and something that I've realized since I've been in here is that it's kind of the same sequence of events that leads me to that place. It usually comes from a really unhealthy friendship or relationship and it drives me to do this like workaholic mode, where I'm like overcompensating for the emotional stress by working really hard and splitting my energy too many different ways, and I get exhausted.

T: Okay. Well, it's very helpful that you've noticed a pattern because that's going to help us fit this all into a model that will direct what we do in treatment here.

P: So essentially, I met this guy and he was promising me a number of things. He was saying he would help me with my car payment—it never happened. He said that he would help me with rent, and that never happened. It was like all of these financial promises and he'd fall short and I'd have to dig myself out of the hole. It's kind of like an image thing, because I've always prided myself on the fact that I am very accomplished and I didn't want to lose that because of someone else's failure.

T: Accomplishments give you value?

P: Yeah. I feel like I'm valuable when I'm working, and I'm in school, and like I can say all these great things that are notable on a sheet of paper.

T: And without those things?

P: I feel like my value goes down. So, my friend calls me and tells me that his brother is saying all these really bad things about me. And I was bothered by it, because it changed my image and it kept happening over and over again over like a period of a week—he was like calling me and telling me his brother said something new.

T: The tainting of your image piece seems to be very distressing. Is that related to the value?

P: Yeah, I worked really hard to work through demons that I had. I was in a domestic violence relationship for 4 years and there was like a 4- or 5-month period where I was a really bad alcoholic and I made some really bad choices. It's just unearthing things that I don't want to deal with and it was like over a week's period he was constantly calling me and telling me all of these things that his brother is saying and using that as a way to sort of judge me.

The patient went on to describe three more interpersonal situations that occurred in the 24 hours prior to her attempt. These included an argument with a friend, a complaint raised about her at work, and a comment by her mother, which she perceived as criticism. Next, the therapist queried to learn more about the specific sequence of events of the patient's suicide attempt.

T: And what happened next? I want to understand how this led up to your attempt.

P: So, I was like sitting in my best friend's living room replaying what everyone was saying to me and I was feeling really overwhelmed and thinking I need to just go for a drive so I can feel better.

T: And did you think that was going to help you feel better?

P: Yeah. So, I get in my car and I played this song "Naked" by Ella Mai over and over, because I really like that song. She's talking about how she wants people to love her just for being her.

T: You feel that way?

P: Yeah. It was the same way when I was driving around for a little bit and I just kept replaying what everyone was saying in my head over and over again and having that feeling of like not feeling good enough. I stopped in a park and I was crying. I felt heavy. There was a tightness in my chest. And I was on antidepressants so I started rummaging through my bag for them because I just didn't want to feel the way I was feeling. I just started taking way too many.

T: Did you take them with the intent to block your emotions, or did you take them with the intent to kill yourself?

P: Both. And I just kept taking them and taking them and then I started taking headache medicine that was in my car, because I didn't want to feel anything and I was crying and my head was

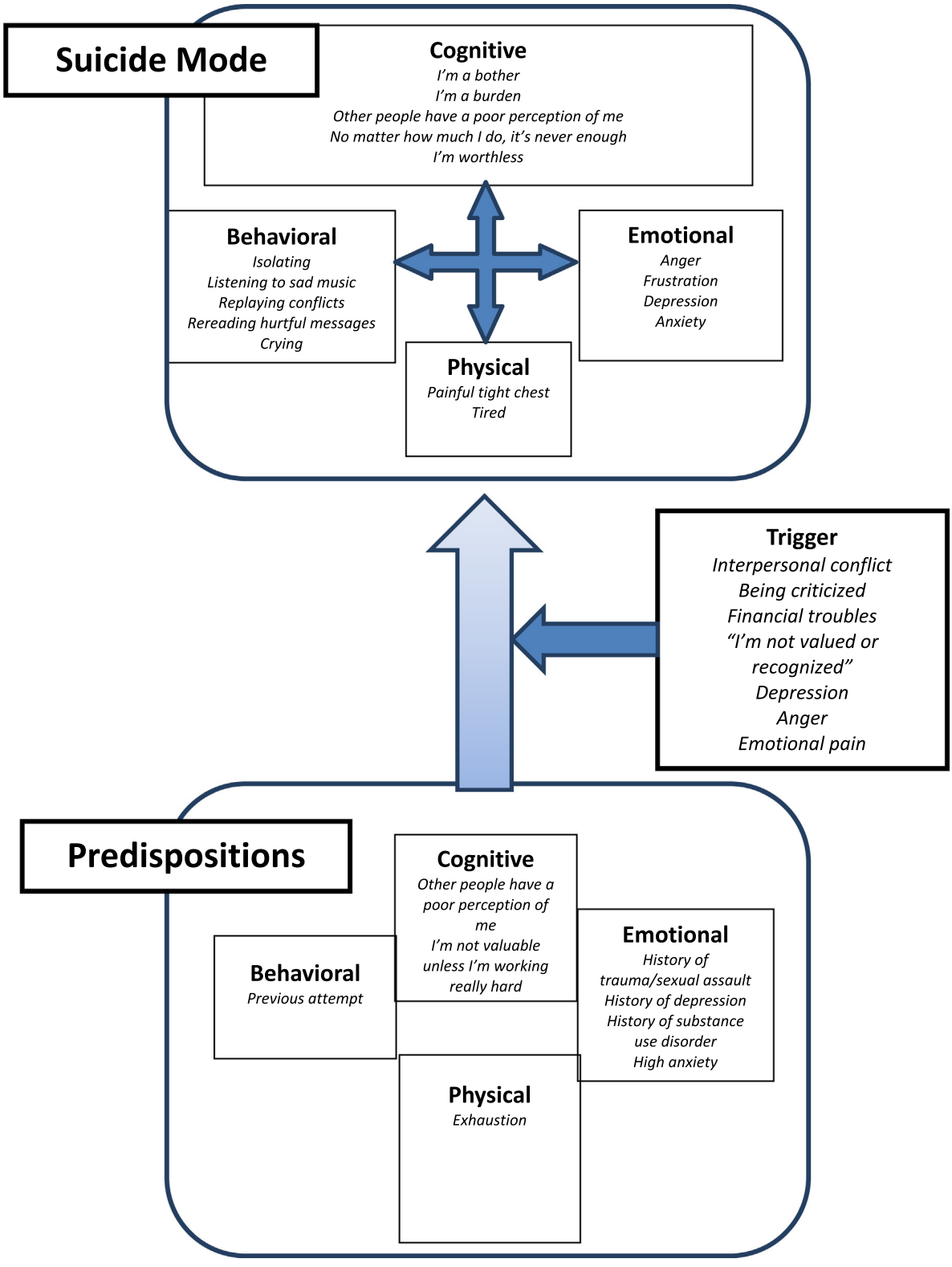

Fig. 1. Karla's suicide mode.

hurting. I was panicking and felt like I couldn't breathe.

T: What happened next?

P: I remembered my therapist said that if I ever felt like I was in crisis and the office was closed, to call 911.

T: Is that what you did?

P: Yeah. The police came and an ambulance brought me to the hospital.

T: It sounds like you were in a really tough place and I want to thank you for sharing that with me. I know that that wasn't easy to talk about.

The therapist followed the narrative assessment with creation of the suicide mode case conceptualization (see Fig. 1) and how BCBT-I targets modifiable aspects of the suicide mode in order to enhance safety. Toward this end, a crisis response plan was developed. An excerpt detailing the creation of the crisis response plan follows:

T: The reason why it's so important to have an understanding of this model is because these behavioral responses aren't working, right? And we want to provide you with skills that you can use when you start to get into this situation so you won't go to the point of a suicide attempt. So, that leads us to a crisis response plan. Have you ever made a plan in your life for something?

P: Yeah, I'm obsessive with planning.

T: What about a crisis plan, like if there is a big storm outside coming?.

P: I have a storm kit in my house. If there's a storm, I have like flashlights and all that stuff.

T: So, this is similar. This is a plan that we can create for an emotional storm, which would be a crisis. So, the first step, when would you say is an appropriate time to use this plan? What are some signals?

P: When I feel a lot of criticism around me.

T: Okay, when there's a lot of criticism coming at you. So, write that down. Definitely. Okay, so you wrote criticism. Um, conflict, right?

P: Yeah.

T: That sounds like a big one. So, interpersonal conflict. Let's also put depression and anger on the list because those are internal experiences that you had during that time. Not feeling valued, yeah?

P: Yeah.

T: The second step, after you recognize that you're in that state, is how to thwart that. So, the second step is to think of things that you could do for half an hour that could improve your mood. So, what would you say are things that you could do, because the behaviors that you chose here were not working as we mentioned, right? They actually made you feel worse. So, what would you say are behaviors that would help you feel better?

P: I used to dance a lot when I was a kid.

T: So, in a crisis situation where you would be going for a drive or listening to music repeatedly, do you think dancing for a half an hour instead would be helpful?

P: Maybe, yeah.

T: Do you want to write that down? Would that be something you think you would actually do?

P: At my best friend's house I could picture myself actually doing that because she listens to music in the kitchen sometimes and we like dancing around.

T: All right. What about if you were alone?

P: Maybe.

T: All right, so that's a maybe. It depends where you are, but that could be one thing that you do. What could be something you could do anywhere?

P: Work out. In the past I've done yoga.

T: Exercise. Write that down.

P: Journaling has helped before.

T: That can be tricky, because you know how we were talking before about how when you're in a negative place . . .

P: You're journaling negative things.

T: Yeah.

P: Which perpetuates more negative thoughts.

T: Exactly. You got it. So, we want to make sure that we're choosing things that are really going to lead you into a more positive direction. Right? So, let's think of one more.

P: It has to be something physical because physical things always help me. I don't know.

T: What about eating something really yummy?

P: Yeah, like cooking?

T: Do you like cooking?

P: I like cooking.

T: So, what about cooking? If cooking helps you feel better, then I'd say that is a great one to put on the list to cook something. Do you have self-harm behaviors?

P: When I was a teenager from like 16 to 18 I used to cut, but I haven't done it since I was 18.

T: All right, I just want to be sure that what we're choosing isn't eliciting that urge.

P: No, I haven't done that since I was 18.

T: Okay. We're looking for things that will calm you, right? So, you mentioned exercise, you mentioned yoga, you mentioned cooking for half an hour, and you mentioned dancing. Fabulous. So that sounds good. So, step number three. If those don't work, reach out for support. And it sounds like that was a behavior that you struggled with. So, who would be a good support for you to reach out to if you were to find yourself in a crisis situation?

P: My boyfriend would be a good support. I've been friends with him since I was 12 years old.

T: Okay, and you're romantically involved now?

P: Um hmmm. And there's also my female best friend.

T: Amazing. Okay, so you have those people to reach out to. Now, you don't necessarily have to tell them that you're in a crisis. It can just be somebody you can speak to. You can open up to them if you would like, but you don't have to. Okay, so, the last step of the crisis response would be to contact professionals.

P: I have a psychiatrist and a therapist.

T: Okay, so reach out to both of them. You can write down their names and their numbers there. And obviously 911 if you can't reach those people. There's also a national suicide hotline: 1–800-273-TALK. Or present to your nearest emergency room, right? And it sounds like you did that, you called 911.

P: It was the first time I ever did that.

As outlined in outpatient BCBT (Bryan & Rudd, 2018), the therapist concludes the crisis response planning with an assessment of how likely the patient is to use the plan. This assessment provides an opportunity to determine whether any changes in the plan are needed in order to enhance feasibility and accessibility for the patient. This strategy is used throughout the treatment whenever new interventions are introduced. Ratings are made on a scale from 0 (*not at all likely*) to 10 (*very likely*). Consistent with outpatient BCBT (Bryan & Rudd, 2018), any rating below a 7 prompted additional discussion to increase patient buy in and likelihood of use.

T: So how likely are you to use this crisis plan on a scale from 0 to 10, 0 being you wouldn't be likely to use it at all, 10 being you're very likely to use it.

P: Probably like a 7.

The crisis response plan, along with the suicide mode, is written in the patient's treatment log—a small composition notebook provided to the patient at the beginning of the session. The treatment log serves as a resource to promote between-session practice and as a written relapse prevention tool. Although there are apps with suicide prevention resources, such as the crisis response plan, patients on this inpatient unit were not allowed access to their phones during their stay, so these apps were not utilized in the current study. At the end of each session, the patient also recorded main takeaways or "lessons learned" in the treatment log, which were then reviewed at the beginning of subsequent sessions. Examples of Karla's lessons learned are shown in Table 2.

Session 2

The primary goal of Session 2 was to increase cognitive flexibility and ambivalence toward suicide by focusing attention on positive aspects of living. First, the therapist introduced reasons for living by asking Karla to describe reasons why she does not want to die and what prevents her from making another suicide attempt. Karla's reasons for living included her mother, sisters, goddaughter, students, and helping others by sharing her story of domestic violence. Next, Karla created a survival kit (sometimes also called a hope box). The therapist provided her with a white cardboard box and asked her to identify items that could be placed in the box that would serve as concrete visual reminders of positive experiences. The rationale for choosing each item was reviewed by the therapist, in order to discourage inclusion of any potentially iatrogenic items. It was also important to identify items that could be included in the survival kit while Karla was still on the inpatient unit, as well as creating a list of items to include once she was discharged (i.e., items that she did not have access to on the unit). During this trial the therapist would routinely offer to print out items such as quotes or pictures to give to Karla to include in the survival kit during her inpatient stay. Because the box was plain, white cardboard, the therapist also recommended that Karla decorate her survival

Table 2
Karla's lessons learned from sessions 1–3

Session number	
1	You can change your behavior in crisis for different results. Ask for help even when I don't feel like it; help is available. Try some of the other tactics, including dancing, exercise, cooking, and yoga.
2	My crisis plan helps me feel more secure. I have a lot of reasons to be alive; I just forget them.
3	I have resources: great people around me, positive self-talk, and therapeutic resources. Having a positive perspective is important.

kit to personalize it. Below are therapy excerpts describing the creation of the survival kit/hope box.

THERAPIST (T): So, the next thing that we're going to be doing is a survival kit or some people call it a hope box, and I'm going to provide you with a box to keep. Often what people do with these types of kits or boxes—they put in objects that remind them of the positive times in their life or things that inspire them. So, some things you can put in there are inspirational quotes. Or, some people maybe had a really amazing time at a concert or on a vacation—they'll put tickets or other mementos in there. Again, you have to be cautious that things can't backfire. So, if you went to a concert of a band that you really love, but it was with someone that you had a falling out with and that brings up bad memories, then that might not be the best item to put in the box.

PATIENT (P): This year was my best birthday.

T: So, maybe memories from that. So, let's make a list. While you're on the unit you obviously don't have access to everything, but I want to start putting stuff in the box. If you tell me a specific quote that you like, I can print it out and bring it tomorrow. Okay, so what can we put in the survival kit?

P: One of my favorite quotes starts out "Our greatest fear is not that we are inadequate, but that we are. . ."

T: I know exactly what you're talking about.

P: I love that quote so much. It's my favorite.

T: I can see you lighting up! Okay, you got it. I can print that so you can have it in there.

P: It's like my favorite quote.

T: Yeah, so stuff like that. Stuff that has this positive effect on you. What else can you put in there?

P: Oh, so there was a guy that was here, he got discharged today. He wrote me this letter. It wasn't romantic. He said that I don't really need to have these guards up to block people out from getting to know me because I have so much to offer the world and he notices it.

T: Were you able to identify with that?

P: Yeah. And he says that he's been in like similar spaces in certain times in his life and that made me so happy. He wrote that letter before I'd known him even a week. And it was so nice and it was encouraging.

T: Could that backfire in any way?

P: No.

T: Put it in there. Good. So, you mentioned birthday pictures.

P: Yes, I am going to print out my birthday pictures.

T: Put that on the list. You can do that when you get out of here because I obviously don't have access to those on the unit.

P: Yeah, it was me and my best friend and it was so nice. We went out to brunch.

T: So maybe print out a picture of the place you ate brunch.

P: Yeah.

T: Are there any keepsakes that you have?

P: I have an old, small picture that one of my students drew to give me and she said, "this is you." It looks nothing like me at all. But I kept it and it's pinned on my like organizational board in my room and it says her name. She's like one of my favorite students.

T: Put that down on the list. We have a few, we have a nice start. I'll certainly bring the quote and you have the letter you can put in there. Maybe a coloring . . .

P: I have a bunch of them.

T: Maybe one that's blank with a crayon or something you could do.

P: That's a good idea. I have a blank one in my room right now.

T: Okay, perfect. So, put that on the list. How likely do you think you are to use this survival kit?

P: This is like a 10, actually.

T: Yeah?

P: This is probably like a 10. It's a quick way to remember good things. I'm definitely likely to use this.

Session 3

During Session 3 the therapist assessed for access to means, including access to firearms, and then collaboratively developed a plan to restrict means. Common examples of means restriction are to remove firearms from the home or to have a family member lock up and dispense medications. Involvement of family members in treatment sessions can be challenging in an inpatient setting. Because family support can play a crucial role in means restriction, the plan was developed initially in the BCBT-I session and then it was shared with the inpatient unit clinician to be reviewed within the course of the patient's routine care family meetings. A therapy excerpt outlining Karla's means restriction counseling follows:

THERAPIST (T): Remember how we talked about how when you're in a low place it's easy to go to the rough thoughts? When you're feeling really bad the thought of suicide as an option can come up really, really quickly. Is that what your experience has been? Like that day that you left your friend's house and went for a drive?

PATIENT (P): That was relatively fast.

T: And so, what we know is having easy access to the means to attempt suicide can increase the risk because of the impulsivity, the quickness with which that can come on. So, one way to deal with that is to restrict means. You said you took a couple bottles of pills, right?

P: Yes.

T: And so, ideally, we'd want you to not have them on you. And at the same time, it's prescribed medication that you need. How can we limit that? What can we do to create a barrier between you and that medication in those moments so that we can increase your safety?

P: You know what I can do? I have a supplement container that goes in my lunch box. What if I put one of my meds in there for when I need it in the day rather than me having that whole container?

T: That sounds like a good idea. Also, what if you're home and you find yourself in a crisis situation? So, even getting a family member involved, a lot of people do that.

P: Well, now that I'm not going to be living on my own, I'm going to be living with my mom, so . . .

T: Perfect. So, do you think maybe we could speak to your clinician here on the unit about that? Would that be okay if your clinician spoke with you and your mom about maybe putting a plan together and having her keep your meds on her?

P: I don't know. I'm just thinking about times I'm not with my mom. Then what do I do?

T: Well, definitely keep your daily dose, you know, on you, so you can take it as prescribed. But in terms of having the whole bottle of medication . . .

P: Yeah, you can talk to my mom about it.

T: Okay, gun safety is a big thing that we look at. How many firearms do you have in the house or other places?

P: Zero. My parents don't have any, my mom doesn't have any, I don't have any.

T: Are there any other means that you can think of aside from medication that you have access to?

P: I've never tried to attempt suicide with anything else. It's only been medications.

T: You know I've worked with other patients with a locked box and their parents have the key. And so, the parent actually administers the medication to them. So again, I'll discuss that with your clinician as a possibility. Okay. So how likely are you on a scale from 0 to 10 to use this means restriction plan?

P: This is definitely a 10 for me.

In Session 3, the therapist also introduced coping cards to modify cognitive factors of the suicide mode. The suicide mode thought was written on one side of the card and an alternative response was written on the other side of the card. The coping cards provided a concrete memory aid for alternative thoughts when the patient's negative thoughts are activated in the suicide mode. A therapy excerpt is presented below that includes developing coping cards, as well as the assignment of between-session practice for the patient to review treatment materials to consistently reinforce and strengthen the cognitive accessibility of the information.

T: So, we're going to move on to coping cards. They're going to be double sided so they're going to be like flash cards and if we open up your suicide mode that we talked about on the first day, we can write some of those things on one side of the card. So, let's start with "People have a poor

perception of me." So, how about we write on the back of that card a reminder of why that's not true? [pause] Awesome. Okay. So, I see you wrote, "My mom thinks I have the potential to accomplish anything I put my mind to."

P: She tells me that all the time.

T: So, what's another one? Let's take something else. What do you think would be another good coping card?

P: "I'm not valuable unless I'm making lots of income."

T: Unless you're working really hard. Okay. So, write that one. And you tell me, what can go on the other side of that? Can we think of other things that make you valuable, besides working hard? I have a good heart. I like doing good for others. And that makes me valuable?

P: Yeah.

T: So, we want reminders of that, right? Excellent. So, for homework I want you to make two more coping cards. Let's make a schedule. How about at every meal, you'll look through your coping cards? Do you want to say before the meal or after the meal?

P: I'm going to do it after the meal.

T: Okay. So, after every meal I want you to review these coping cards. Look at them as though they're flash cards, look at the front and look at the back.

P: Okay.

T: So how likely between 0 and 10 are you to use your coping cards do you think?

P: Probably like a 6. I'm more likely to use the survival kit.

T: What makes this less likely to use?

P: Because it's so many cards.

T: Okay. So, we can think of a solution to that. What if we took a rubber band, put all the cards together, and then you put them in that same place that we would keep the survival kit? Would that make it more likely for you to use?

P: Yeah, it's just so many cards, I'm just worried I'm going to lose them.

T: That sounds possible. Would that change the number?

P: Yeah, then it's more like an 8.

Analytic Plan

Data on treatment acceptability, attendance, and BCBT-I skill likelihood of use are presented descriptively (e.g., frequencies, means). Within-subjects *t* tests were used to determine whether there was a statistically significant change from intake to discharge on measures of suicidality and depression, and from discharge to each follow-up on suicidality. Effect sizes (Cohen's *d*; Cohen, 1988) are also reported.

Results

Treatment Acceptability

A high degree of treatment acceptability was evident, as all patients who were identified as study eligible (n = 8) agreed to participate. Two participants were subsequently excluded after a current SUD was diagnosed. All patients who started treatment (n = 6) continued treatment until discharge and on average reported a high degree of satisfaction with the study intervention (CSQ total score M = 3.49, SD = 0.73, out of possible 4.00). Ratings made by patients on the likelihood of using the BCBT-I skills were uniformly high across all patients and skills (M = 9.34, SD = 0.90, out of possible 10.00). All but one participant completed follow-up assessments. A review of the electronic medical record at 3-month follow-up indicated that the patient who was lost to follow-up was continuing to access services within the hospital system, but had not been readmitted for inpatient treatment.

Treatment Attendance

On average, participants completed 4.67 BCBT-I treatment sessions (SD = 1.36, range = 3–7) during a 16-day (SD = 6.02, range = 10–24) length of stay. Removing days during which treatment was not expected to take place (e.g., weekends, holidays, admission, discharge), the average number of days available for treatment was 9 (SD = 4.32, range = 5–16). Research-related screening and assessment required another 2 days on average (M = 2.33, SD = 0.52, range = 2–3). Once starting treatment, two thirds of the participants (4/6, 66.67%) completed BCBT-I sessions on all available days. There was inconsistent attendance for the remaining two participants. In one case, the participant expressed having difficulty with attention and concentration, and thus required Session 1 to be completed over multiple days. This same participant also declined to attend one session. In the second case, the participant was experiencing comorbid medical illness. She declined to meet with the clinician due to illness on one day and she was unavailable to attend BCBT-I sessions on several days due to leaving the unit to attend appointments for medical care.

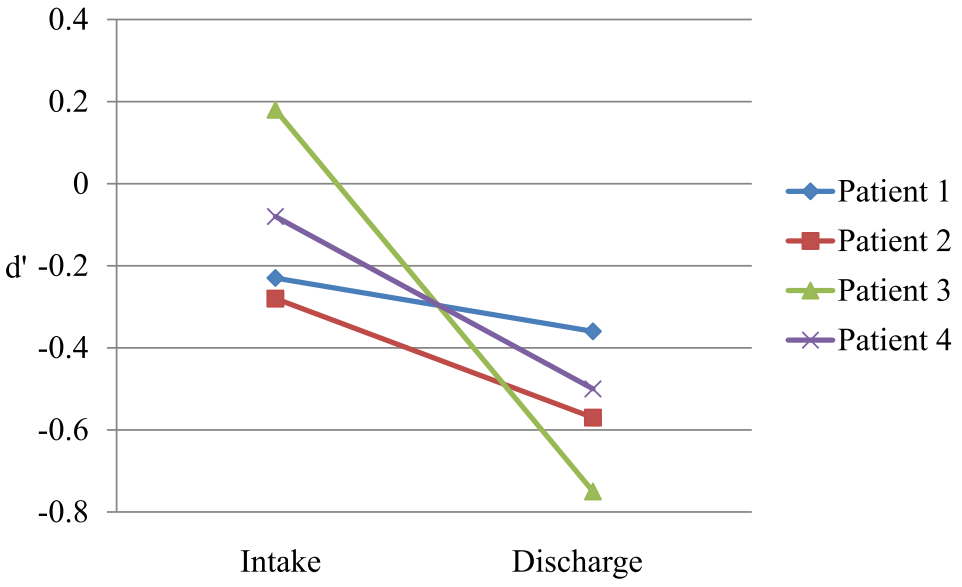

Fig. 2. Pre–post brief cognitive-behavioral therapy for an inpatient setting suicide implicit association test results.

Treatment Outcome

Posttreatment

There was a large pre- ($M = 13.00$, $SD = 6.51$) to posttreatment ($M = 2.50$, $SD = 6.12$) effect size ($d = 0.97$) for improvement in suicidal ideation (C-SSRS Intensity subscale $t[5] = 2.40$, $p = .06$, total score out of possible 25). Patients also reported a large ($d = 1.33$) and statistically significant improvement in depression from pre- ($M = 15.00$, $SD = 7.97$) to posttreatment ($M = 6.17$, $SD = 3.60$) as assessed by the SIGH-D, $t(5) = 3.26$, $p = .02$. This change represents an improvement from "mild" to "no" depression (Zimmerman et al., 2013). Complete data on the IAT were available from four participants. Results from the IAT also indicated stronger associations between self and life words at posttreatment, compared to pretreatment ($d = 1.28$; see Fig. 2).

Follow-Up

There were no reported suicide attempts of any kind (i.e., aborted, interrupted, actual), no reported preparatory acts or behaviors, and no reported nonsuicidal self-injury over follow-up on the C-SSRS Behavior subscale. Two participants reported suicidal ideation over the follow-up period. One reported experiencing wishes to be dead (without actual thoughts of killing self) at the 3-month follow-up, and the other reported active suicidal ideation without intent to act at the 1-month follow-up and wishes to be dead (without actual thoughts of killing self) at the 2-month follow-up. When present, the intensity of suicidal ideation ranged from 10 to 13 (out of a possible maximum score of 25) on the C-SSRS Intensity subscale during follow-up. Within-subjects t tests indicated no statistically significant changes in C-SSRS Intensity from discharge to each follow-up, 1 month $t(5) = 0.14$, $p = .89$; 2 months $t(4) = 0.25$, $p = .82$; 3 months $t(4) = 0.09$, $p = .93$, with trivial effect sizes (d range = 0.04–0.11).

Discussion

Results from this study demonstrate the feasibility of incorporating CBT for suicide prevention into an inpatient setting. Patient identification through electronic medical records, followed by individual consultation with attending psychiatrists, was shown to be an effective screening strategy. A high degree of acceptability was illustrated through patient participation, likelihood of BCBT-I skills use ratings, and client satisfaction assessment. Given that the end point of treatment was patient discharge, it was not surprising that patients were reporting lower suicidality and depression at posttreatment. Results from the IAT, which does not rely on direct patient symptom report, also suggested decreased suicide risk at posttreatment. Further, follow-up assessments suggested good maintenance of gains for up to 3 months postdischarge.

The next step toward validation and dissemination of this treatment is to conduct an RCT comparing BCBT-I to TAU. Although the current results are promising, they do not inform whether BCBT-I reduces suicide risk beyond that afforded by inpatient treatment alone. Data collected during this pilot trial does provide guidance, however, on treatment refinement prior to a definitive RCT. It is noted that none of the patients completed the entire BCBT-I protocol of 10 sessions, and the average length of treatment

was 4.67 sessions. In addition, sessions were completed on about half of the available days on average. Although only a minority of patients failed to meet regularly for BCBT-I, it is important for future research to track barriers to treatment implementation and identify potential solutions.

Reviewing of session content through treatment fidelity, as well as supervisory/consultation meetings, also raised the concern that daily sessions may not allow adequate time for practice and consolidation of the Phase II treatment material, at least as these skills are applied as suicide prevention tools. In addition, meta-analytic research suggests that CBT targeting general psychiatric distress, such as those interventions in Phase II, are less efficacious than are treatments focusing on reducing suicidal behavior directly (Mewton & Andrews, 2016). Thus, it is recommended that future research on BCBT-I test the efficacy of a briefer treatment protocol that is more focused on suicide prevention strategies (such as those used in Phase I of the protocol described here).

It is also important for future research to evaluate BCBT-I when administered to a more generalizable patient sample—for example, patients diagnosed with nonremitted SUD were excluded from the current open trial. However, SUD is common in suicidal individuals (Miller et al., 1991) and the presence of SUD increases suicide risk (Ferrari et al., 2014). Although the outpatient BCBT protocol was validated in a sample within which a substantial minority was diagnosed with SUD (Rudd et al., 2015), the moderating effect of SUD on CBT for suicide prevention has not been established. To address this research question, it is important to include patients with SUD in future research.

Last, follow-up assessments are critical, both for assessing patient safety, and for answering research questions about treatment efficacy. In the current study, 83% of patients completed all follow-up assessments. Our follow-up contact protocol involved obtaining one telephone patient contact and one emergency contact (with Health Insurance Portability and Accountability Act [HIPAA] authorization for permission to contact) in the event that the patient could not be reached. Following several failed attempts at telephone contact, letters were sent to the one patient who was unable to be reached, in order to arrange follow-up assessments. Despite these efforts, we were unable to conduct all follow-up assessments. In future research it is recommended that additional forms (e.g., e-mail, text, call, mail) of direct patient contact, as well as multiple other person contacts, be obtained (along with consents outlining the nature and content of the contact) for the purposes of following up with the patient postdischarge. It will also be important for future research to obtain multitrait multimethod assessments during follow-ups (e.g., including the IAT in these assessments). Although only two participants reported suicidal ideation during follow-up, interpretation of the C-SSRS Intensity subscale results was limited by a lack of standardized cut scores for this subscale.

This study provides preliminary evidence supporting the feasibility of CBT to treat suicidal inpatients and contributes to a sparse literature on suicide prevention treatment in this setting. Although data suggest that recently discharged inpatients are a highly vulnerable population at increased risk for suicide (Walter et al., 2018), surprisingly few studies have investigated inpatient treatment protocols for this population. Given the limited evidence available to date, it is important for future research to empirically validate inpatient suicide prevention protocols, such as BCBT-I, and further refine the protocol as needed to optimize treatment for subpopulations (e.g., SUD) when treatment moderators are identified.

References

Attkisson, C. C., & Greenfield, T. K. (1999). The UCSF client satisfaction scales: I. The client satisfaction questionnaire–8. In M. E. Maruish (Ed.), *The use of psychological testing for treatment planning and outcomes assessment* ((2nd ed.).. Erlbaum.

Bentley, K. H., Sauer-Zavala, S., Cassiello-Robbins, C. F., Conklin, L. R., Vento, S., & Homer, D. (2017). Treating suicidal thoughts and behaviors within an emotional disorders framework: Acceptability and feasibility of the unified protocol in an inpatient setting. *Behavior Modification, 41*(4), 529–557. https://doi.org/10.1177/0145445516689661.

Britton, P. C., Conner, K. R., Chapman, B. P., & Maisto, S. A. (2020). Motivational interviewing to address suicidal ideation: A randomized controlled trial in veterans. *Suicide and Life-Threatening Behavior, 50*(1), 233–248. https://doi.org/10.1111/sltb.12581.

Brown, G. K., Henriques, G. R., Ratto, C., & Beck, A. T. (2002). Cognitive therapy treatment manual for suicide attempters. *University of Pennsylvania*.

Brown, G. K., Ten Have, T., Henriques, G. R., Xie, S. X., Hollander, J. E., & Beck, A. T. (2005). Cognitive therapy for the prevention of suicide attempts: A randomized controlled trial. *JAMA, 294*(5), 563–570. https://doi.org/10.1001/jama.294.5.563.

Bryan, C. J., Mintz, J., Clemans, T. A., Leeson, B., Burch, T. S., Williams, S. R., ... Rudd, M. D. (2017). Effect of crisis response planning vs. contracts for safety on suicide risk in U.S. Army soldiers: A randomized clinical trial. *Journal of Affective Disorders, 212*, 64–72. https://doi.org/10.1016/j.jad.2017.01.028.

Bryan, C. J., & Rudd, M. D. (2018). *Brief cognitive behavioral therapy for suicide prevention*. Guilford Press.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* ((2nd ed.).). Erlbaum.

D'Anci, K. E., Uhl, S., Giradi, G., & Martin, C. (2019). Treatments for the prevention and management of suicide: A systematic review. *Annals of Internal Medicine, 171*(5), 334–342. https://doi.org/10.7326/M19-0869.

Ducasse, D., Dassa, D., Courtet, P., Brand-Arpon, V., Walter, A., Guillaume, S., ... Olie, E. (2019). Gratitude diary for the management of suicidal inpatients: A randomized controlled trial. *Depression and Anxiety, 36*(5), 400–411. https://doi.org/10.1002/da.22877.

Falcone, G., Nardella, A., Lamis, D. A., Erbuto, D., Girardi, P., & Pompili, M. (2017). Taking care of suicidal patients with new technologies and reaching-out means in the post-discharge period. *World Journal of Psychiatry, 7*(3), 163–176. https://doi.org/10.5498/wjp.v7.i3.163.

Ferrari, A. J., Norman, R. E., Freedman, G., Baxter, A. J., Pirkis, J. E., Harris, M. G., ... Whiteford, H. A. (2014). The burden attributable to mental and substance use disorders as risk factors for suicide: Findings from the global burden of disease study 2010. *PLoS ONE, 9*(4). https://doi.org/10.1371/journal.pone.0091936 e91936.

Ghahramanlou-Holloway, M., Brown, G. K., Currier, G. W., Brenner, L., Knox, K. L., Grammer, G., ... Stanley, B. (2014). Safety planning for military (SAFE MIL): Rationale, design, and safety considerations of a randomized controlled trial to reduce suicide risk among psychiatric inpatients. *Contemporary Clinical Trials, 39*(1), 113–123. https://doi.org/10.1016/j.cct.2014.07.003.

Ghahramanlou-Holloway, M., LaCroix, J. M., Perera, K. U., Neely, L., Grammer, G., Weaver, J., ... Lee-Tauler, S. Y. (2020). Inpatient psychiatric care following a suicide-related hospitalization: A pilot trial of post-admission cognitive therapy in a military medical center. *General Hospital Psychiatry, 63*, 46–53. https://doi.org/10.1016/j.genhosppsych.2018.11.006.

Ghanbari, B., Malakouti, S. K., Nojomi, M., Alavi, K., & Khaleghparast, S. (2015). Suicide prevention and follow-up services: A narrative review. *Global Journal of Health Science, 8*(5), 145–153. https://doi.org/10.5539/gjhs.v8n5p145.

Gwaltney, C., Mundt, J. C., Greist, J. H., Paty, J., & Tiplady, B. (2017). Interactive voice response and text-based self-report versions of the electronic Columbia-Suicide Severity Rating Scale are equivalent. *Innovations in Clinical Neuroscience, 14*(3–4), 17–23.

Gysin-Maillart, A., Schwab, S., Soravia, L., Megert, M., & Michel, K. (2016). A novel brief therapy for patients who attempt suicide: A 24-months follow-up randomized controlled study of the Attempted Suicide Short Intervention Program (ASSIP). *PLoS Medicine, 13*(3). https://doi.org/10.1371/journal.pmed.1001968 e1001968.

Haddock, G., Davies, L., Evans, E., Emsley, R., Gooding, P., Heaney, L., ... Awenat, Y. (2016). Investigating the feasibility and acceptability of a cognitive behavioural suicide prevention therapy for people in acute psychiatric wards (the "INSITE" trial): Study protocol for a randomised controlled trial. *Trials, 17*, 79. https://doi.org/10.1186/s13063-016-1192-9.

Haddock, G., Pratt, D., Gooding, P. A., Peters, S., Emsley, R., Evans, E., ... Awenat, Y. (2019). Feasibility and acceptability of suicide prevention therapy on acute psychiatric wards: Randomised controlled trial. *BJPsych Open, 5*(1). https://doi.org/10.1192/bjo.2018.85 e14.

Hamilton, M. (1960). A rating scale for depression. *Journal of Neurological and Neurosurgical Psychiatry, 23*, 56–62.

Hawton, K., Casanas, I. C. C., Haw, C., & Saunders, K. (2013). Risk factors for suicide in individuals with depression: A systematic review. *Journal of Affective Disorders, 147*(1–3), 17–28. https://doi.org/10.1016/j.jad.2013.01.004.

Hepp, U., Wittmann, L., Schnyder, U., & Michel, K. (2004). Psychological and psychosocial interventions after attempted suicide: An overview of treatment studies. *Crisis, 25*(3), 108–117. https://doi.org/10.1027/0227-5910.25.3.108.

Heron, M. (2013). Deaths: Leading causes for 2010. *National Vital Statistics Reports, 62*(6), 1–96.

Hesdorffer, D. C., French, J. A., Posner, K., DiVentura, B., Pollard, J. R., Sperling, M. R., ... Kanner, A. M. (2013). Suicidal ideation and behavior screening in intractable focal epilepsy eligible for drug trials. *Epilepsia, 54*(5), 879–887. https://doi.org/10.1111/epi.12128.

Huisman, A., Kerkhof, A. J., & Robben, P. B. (2011). Suicides in users of mental health care services: Treatment characteristics and hindsight reflections. *Suicide and Life-Threatening Behavior, 41*(1), 41–49. https://doi.org/10.1111/j.1943-278X.2010.00015.x.

Kennard, B. D., Goldstein, T., Foxwell, A. A., McMakin, D. L., Wolfe, K., Biernesser, C., ... Brent, D. (2018). As Safe as Possible (ASAP): A brief app-supported inpatient intervention to prevent postdischarge suicidal behavior in hospitalized, suicidal adolescents. *American Journal of Psychiatry, 175*(9), 864–872. https://doi.org/10.1176/appi.ajp.2018.17101151.

Kessler, R. C., Borges, G., & Walters, E. E. (1999). Prevalence of and risk factors for lifetime suicide attempts in the National Comorbidity Survey. *Archives of General Psychiatry, 56*(7), 617–626. https://doi.org/10.1001/archpsyc.56.7.617.

LaCroix, J. M., Perera, K. U., Neely, L. L., Grammer, G., Weaver, J., & Ghahramanlou-Holloway, M. (2018). Pilot trial of post-admission cognitive therapy: Inpatient program for suicide prevention. *Psychological Services, 15*(3), 279–288. https://doi.org/10.1037/ser0000224.

Linehan, M. M. (1991). Cognitive-behavioral treatment of chronically parasuicidal borderline patients. *Archives of General Psychiatry, 48*, 1060–1064. https://doi.org/10.1001/archpsyc.1991.01810360024003.

Madan, A., Frueh, B. C., Allen, J. G., Ellis, T. E., Rufino, K. A., Oldham, J. M., & Fowler, J. C. (2016). Psychometric reevaluation of the Columbia-Suicide Severity Rating Scale: Findings from a prospective, inpatient cohort of severely mentally ill adults. *Journal of Clinical Psychiatry, 77*(7), e867–e873. https://doi.org/10.4088/JCP.15m10069.

Mann, J. J., Apter, A., Bertolote, J., Beautrais, A., Currier, D., Haas, A., ... Hendin, H. (2005). Suicide prevention strategies: A systematic review. *JAMA, 294*(16), 2064–2074. https://doi.org/10.1001/jama.294.16.2064.

Mewton, L., & Andrews, G. (2016). Cognitive behavioral therapy for suicidal behaviors: Improving patient outcomes. *Psychology Research and Behavior Management, 9*, 21–29. https://doi.org/10.2147/PRBM.S84589.

Michel, K., Valach, L., & Gysin-Maillart, A. (2017). A novel therapy for people who attempt suicide and why we need new models of suicide. *International Journal of Environmental Research and Public Health, 14*(3), 243. https://doi.org/10.3390/ijerph14030243.

Miller, N. S., Mahler, J. C., & Gold, M. S. (1991). Suicide risk associated with drug and alcohol dependence. *Journal of Addictive Diseases, 10*(3), 49–61. https://doi.org/10.1300/J069v10n03_06.

Milner, A. J., Carter, G., Pirkis, J., Robinson, J., & Spittal, M. J. (2015). Letters, green cards, telephone calls and postcards: Systematic and meta-analytic review of brief contact interventions for reducing self-harm, suicide attempts and suicide. *British Journal of Psychiatry, 206*(3), 184–190. https://doi.org/10.1192/bjp.bp.114.147819.

Moberg, P. J., Lazarus, L. W., Mesholam, R. I., Bilker, W., Chuy, I. L., Neyman, I., & Markvart, V. (2001). Comparison of the standard and structured interview guide for the Hamilton Depression Rating Scale in depressed geriatric inpatients. *American Journal of Geriatric Psychiatry, 9*(1), 35–40. https://doi.org/10.1097/00019442-200102000-00006.

Motto, J. A., & Bostrom, A. G. (2001). A randomized controlled trial of postcrisis suicide prevention. *Psychiatric Services, 52*(6), 828–833. https://doi.org/10.1176/appi.ps.52.6.828.

Nguyen, T. D., Attkisson, C. C., & Stegner, B. L. (1983). Assessment of patient satisfaction: Development and refinement of a service evaluation questionnaire. *Evaluation and Program Planning, 6*(3–4), 299–313.

Nock, M. K., Park, J. M., Finn, C. T., Deliberto, T. L., Dour, H. J., & Banaji, M. R. (2010). Measuring the suicidal mind: Implicit cognition predicts suicidal behavior. *Psychological Science, 21*(4), 511–517. https://doi.org/10.1177/0956797610364762.

O'Connor, R. C., Ferguson, E., Scott, F., Smyth, R., McDaid, D., Park, A. L., ... Armitage, C. J. (2017). A brief psychological intervention to reduce repetition of self-harm in patients admitted to hospital following a suicide attempt: A randomised controlled trial. *Lancet Psychiatry, 4*(6), 451–460. https://doi.org/10.1016/S2215-0366(17)30129-3.

Olfson, M., Wall, M., Wang, S., Crystal, S., Liu, S. M., Gerhard, T., & Blanco, C. (2016). Short-term suicide risk after psychiatric hospital discharge. *JAMA Psychiatry, 73*(11), 1119–1126. https://doi.org/10.1001/jamapsychiatry.2016.2035.

Pfeiffer, P. N., King, C., Ilgen, M., Ganoczy, D., Clive, R., Garlick, J., ... Valenstein, M. (2019). Development and pilot study of a suicide prevention intervention delivered by peer support specialists. *Psychological Services, 16*(3), 360–371. https://doi.org/10.1037/ser0000257.

Posner, K., Brown, G. K., Stanley, B., Brent, D. A., Yershova, K. V., Oquendo, M. A., ... Mann, J. J. (2011). The Columbia-suicide severity rating scale: Initial validity and internal consistency findings from three multisite studies with adolescents and adults. *American Journal of Psychiatry, 168*(12), 1266–1277. https://doi.org/10.1176/appi.ajp.2011.10111704.

Riblet, N. B. V., Shiner, B., Young-Xu, Y., & Watts, B. V. (2017). Strategies to prevent death by suicide: Meta-analysis of randomised controlled trials. *British Journal of Psychiatry, 210*(6), 396–402. https://doi.org/10.1192/bjp.bp.116.187799.

Rudd, M. D. (2006). Fluid vulnerability theory: A cognitive approach to understanding the process of acute and chronic risk. In T. E. Ellis (Ed.), *Cognition and suicide: Theory, research, and therapy* (pp. 355–368). American Psychological Association.

Rudd, M. D., Bryan, C. J., Wertenberger, E. G., Peterson, A. L., Young-McCaughan, S., Mintz, J., ... Bruce, T. O. (2015). Brief cognitive-behavioral therapy effects on post-treatment suicide attempts in a military sample: Results of a randomized clinical trial with 2-year follow-up. *American Journal of Psychiatry, 172*(5), 441–449. https://doi.org/10.1176/appi.ajp.2014.14070843.

Rudd, M. D., Joiner, T. E., & Rajab, M. H. (2000). *Treating suicidal behavior: An effective, time-limited approach.* Guilford Press.

Salkovskis, P. M., Atha, C., & Storer, D. (1990). Cognitive-behavioural problem solving in the treatment of patients who repeatedly attempt suicide. A controlled trial. *British Journal of Psychiatry, 157*, 871–876. https://doi.org/10.1192/bjp.157.6.871.

Stanley, B., & Brown, G. K. (2012). Safety planning intervention: A brief intervention to mitigate suicide risk. *Cognitive and Behavioral Practice, 19*, 256–264.

Stanley, B., Brown, G. K., Brenner, L. A., Galfalvy, H. C., Currier, G. W., Knox, K. L., ... Green, K. L. (2018). Comparison of the safety planning intervention with follow-up vs usual care of suicidal patients treated in the emergency department. *JAMA Psychiatry, 75*(9), 894–900. https://doi.org/10.1001/jamapsychiatry.2018.1776.

Tarrier, N., Gooding, P., Pratt, D., Kelly, J., Awenat, Y., & Maxwell, J. (2013). *Cognitive behavioural prevention of suicide in psychosis: A treatment manual.* Routledge.

Tarrier, N., Taylor, K., & Gooding, P. (2008). Cognitive-behavioral interventions to reduce suicide behavior: A systematic review and meta-analysis. *Behavior Modification, 32*(1), 77–108. https://doi.org/10.1177/0145445507304728.

Tidemalm, D., Beckman, K., Dahlin, M., Vaez, M., Lichtenstein, P., Langstrom, N., & Runeson, B. (2015). Age-specific suicide mortality following non-fatal self-harm: National cohort study in Sweden. *Psychological Medicine, 45*(8), 1699–1707. https://doi.org/10.1017/S0033291714002827.

Tolin, D. F., Gilliam, C., Wootton, B. M., Bowe, W., Bragdon, L. B., Davis, E., ... Hallion, L. S. (2018). Psychometric properties of a Structured Diagnostic Interview for DSM-5 anxiety, mood, and obsessive-compulsive and related disorders. *Assessment, 25*(1), 3–13. https://doi.org/10.1177/1073191116638410.

Vujanovic, A. A., Meyer, T. D., Heads, A. M., Stotts, A. L., Villarreal, Y. R., & Schmitz, J. M. (2017). Cognitive-behavioral therapies for depression and substance use disorders: An overview of traditional, third-wave, and transdiagnostic approaches. *American Journal of Drug and Alcohol Abuse, 43*(4), 402–415. https://doi.org/10.1080/00952990.2016.1199697.

Walter, F., Carr, M. J., Mok, P. L. H., Antonsen, S., Pedersen, C. B., Shaw, J., & Webb, R. T. (2018). Suicide methods and specific types of accidental death and fatal poisoning among discharged psychiatric patients: A national cohort study. *Journal of Clinical Psychiatry, 79*(6). https://doi.org/10.4088/JCP.17m11809.

Williams, J. B. (1988). A structured interview guide for the Hamilton Depression Rating Scale. *Archives of General Psychiatry, 45*(8), 742–747. https://doi.org/10.1001/archpsyc.1988.01800320058007.

Worthington, J., Fava, M., Augustin, C., Alpert, J., Nierenberg, A. A., Pava, J. A., & Rosenbaum, J. F. (1996). Consumption of alcohol, nicotine and caffeine among depressed outpatients: Relationship with response to treatment. *Psychosomatics, 37*, 518–522. https://doi.org/10.1016/S0033-3182(96)71515-3.

Youngstrom, E. A., Hameed, A., Mitchell, M. A., Van Meter, A. R., Freeman, A. J., Algorta, G. P., ... Meyer, R. E. (2015). Direct comparison of the psychometric properties of multiple interview and patient-rated assessments of suicidal ideation and behavior in an adult psychiatric inpatient sample. *Journal of Clinical Psychiatry, 76*(12), 1676–1682. https://doi.org/10.4088/JCP.14m09353.

Zimmerman, M., Martinez, J. H., Young, D., Chelminski, I., & Dalrymple, K. (2013). Severity classification on the Hamilton depression rating scale. *Journal of Affective Disorders, 150*(2), 384–388. https://doi.org/10.1016/j.jad.2013.04.028.

The authors wish to thank Linda Durst and Raveen Mehendru for their leadership and support of this project. This study was funded by Grant 126555 to David Tolin from the Institute of Living Depression Initiative Fund. The funding source did not play a role in designing the study; collection, analysis, or interpretation of data; in writing the manuscript; or in the decision to submit the manuscript for publication. David Tolin receives consulting fees from Mindyra, LLC and research support from Pfizer and Palo Alto Health Services, Inc.

Address correspondence to Gretchen J. Diefenbach, Anxiety Disorders Center, The Institute of Living, 200 Retreat Avenue, Hartford, CT 06106. e-mail: Gretchen.Diefenbach@hhchealth.org.

Received: February 1, 2019
Accepted: September 21, 2020
Available online 19 November 2020