Journal of Affective Disorders 222 (2017) 153–161

Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Research paper

Comparing brief interventions for suicidal individuals not engaged in treatment: A randomized clinical trial

Erin F. Ward-Ciesielski[a,b,*], Julia A. Tidik[a], Amanda J. Edwards[a], Marsha M. Linehan[a]

[a] University of Washington, 3935 University Way NE, Seattle, WA 98195, United States
[b] Hofstra University, 135 Hofstra University, Hempstead, NY 11549, United States

ARTICLE INFO

Keywords:
Suicide
Treatment engagement
Brief interventions
Suicidal ideation

ABSTRACT

Background: Non-treatment-engaged individuals experiencing suicidal thoughts have been largely overlooked in the intervention literature, despite reviews suggesting most individuals who die by suicide were not in treatment immediately prior to their death. Most intervention studies recruit individuals from treatment providers, potentially neglecting those individuals who are not already engaged in services. These individuals clearly represent a group in need of additional empirical attention.

Methods: A randomized clinical trial was conducted to compare a single-session dialectical behavior therapy skills-based intervention to a relaxation training control condition. Ninety-three non-treatment-engaged subjects participated in a single in-person assessment, received one of the intervention protocols, and completed follow-up phone interviews for three months including measures of suicidal ideation, emotion dysregulation, and coping skills, as well as other relevant assessments.

Results: Both conditions reported significantly reduced levels of suicidal ideation, depression, and anxiety; however, analyses revealed no significant differences between conditions on the main outcome measures of suicidal ideation, emotion dysregulation, skills use, depression, or anxiety.

Limitations: The two interventions may have been too similar to permit detection of differential effects with this sample size. Specifically, the control condition may have been too active and there may have been stylistic overlap by providers who delivered both interventions.

Conclusions: Encouragingly, half of subjects contacted other mental health services during the follow-up period. Although the two interventions under investigation did not yield differential results, the significant changes in important domains across interventions suggest that brief interventions may hold promise for this difficult-to-reach population.

1. Introduction

Suicide is a pervasive problem throughout the world (World Health Organization [WHO], 2015), claiming tens of thousands of lives in the United States and hundreds of thousands worldwide (WHO, 2015). Given the total monetary costs associated with suicidal behaviors (Centers for Disease Control and Prevention [CDC], 2015) and the emotional and societal losses each year, the reduction of suicide events is a public health imperative. Despite the ubiquity of suicide, only approximately 40–60 randomized controlled trials (depending on the criteria used to select trials in each literature review) of interventions have been published to date which specifically target suicidal behaviors (e.g., Ward-Ciesielski and Linehan, 2014; Winter et al., 2013). Relative to the number of trials targeting depression, anxiety, substance use, and other important problems associated with a lower incidence of death, the paucity of research becomes even more pronounced.

Of these trials, approximately one-third have shown the experimental intervention to significantly outperform the control condition on suicidal outcomes (Ward-Ciesielski and Linehan, 2014); however, only two of these interventions have been replicated, Dialectical Behavior Therapy (DBT) and "caring letters" (Linehan et al., 1991; Motto, 1976). DBT has consistently been shown to be effective in decreasing suicidal behaviors up to 50% during treatment and follow-up phases (typically at least one year each), when compared to treatment as usual across seven randomized controlled trials (Koons et al., 2001; Linehan et al., 1991, 2006, 2015; McMain et al., 2009; Pistorello et al., 2012; Verheul et al., 2003). The second replicated intervention involved sending caring letters at predetermined intervals to individuals who did not follow-up with treatment referrals. During each replication, the experimental group had lower rates of suicidal behaviors (attempts or

* Correspondence to: Hofstra University, Department of Psychology, 135 Hofstra University, Hempstead, NY 11550, United States.
E-mail address: erin.f.wardciesielski@hofstra.edu (E.F. Ward-Ciesielski).

http://dx.doi.org/10.1016/j.jad.2017.07.011
Received 28 February 2017; Received in revised form 25 May 2017; Accepted 5 July 2017
Available online 06 July 2017
0165-0327/

completed suicides) than the control group (Carter et al., 2007; Hassanian-Moghaddam et al., 2011; Motto, 1976; Motto and Bostrom, 2001). Despite these significant effects, once the letters were no longer sent, the rates of suicidal behavior became equal across groups.

While there is a scarcity of research focused on treatments for suicidal individuals, the studies that have been conducted have neglected a significant proportion of the suicidal population: those individuals who do not seek treatment in times of suicidal crisis. With only minor exceptions (e.g., Litman and Wold, 1976; Oquendo et al., 2011; Weinberg et al., 2006), intervention studies targeting suicidal behaviors have required potential participants to receive referrals from their current mental health providers; however, recent research suggests that most suicidal individuals do not have contact with mental health services prior to their death (Luoma et al., 2002). Specifically, as many as 68% and 81% of individuals who die by suicide have not been in contact with mental health services in the one year and one month prior to death, respectively (Luoma et al., 2002). Furthermore, Milner and De Leo (2010) found that individuals who utilized services following a suicide attempt were more likely to have attempted suicide via overdose; previously communicated suicidal thoughts; and had a history of psychological problems, suicide attempts, and help-seeking behavior. The individuals who did not seek services after a suicide attempt were more likely to be male and reported no history of communicating suicidal intent and no history of seeking help for their suicidal ideation. This suggests there may be important differences between suicidal individuals who engage in treatment during suicidal crises and those who do not.

A pilot study was conducted to develop and test an intervention for suicidal individuals who were not engaged in mental health treatment before conducting a randomized, controlled trial (Ward-Ciesielski, 2013). In this open pilot trial that did not include a control condition, five DBT skills were selected for the intervention and the promising results of the trial suggest that more evaluation of the DBT Brief Suicide Intervention (DBT-BSI) is warranted. Of note, outcomes and feedback from participants interested in treatment were compared to those uninterested in treatment and there were no significant differences, suggesting that individuals not engaged in treatment may benefit and find value in this brief intervention (Ward-Ciesielski, 2013).

In summary, there are limited efficacious interventions for suicidal individuals and those that do exist are limited in their applicability for a population uninterested or unengaged in mental health treatment. Hence, we conducted a randomized controlled trial to investigate the efficacy of the DBT-BSI (Ward-Ciesielski, 2013; Ward-Ciesielski et al., 2016) relative to a relaxation training (RT) control for suicidal adults who were non-treatment-engaged (i.e., had not met with a mental health provider in the past month). We hypothesized that participants who received the DBT-BSI would report lower levels of suicidal ideation, emotion dysregulation, depression, and anxiety than participants in the RT condition. Additionally, we predicted that DBT-BSI participants would report higher levels of skills use than RT participants over the three-month follow-up period.

2. Method

2.1. Study design and setting

This randomized, single-blind study was conducted in a university outpatient clinic in the Northwestern United States. The study protocol, which describes the study in more detail, has been previously published (Ward-Ciesielski et al., 2016). The sample size was determined using G-Power (Faul et al., 2007). Using Cohen's (1988) guidelines, the effect size of the decrease in suicidal ideation one month post-intervention from the pilot study (.56; Ward-Ciesielski, 2013) is considered a medium effect. Based on power calculations for the full sample and the maximum expected decline and attrition rates, we had adequate power to detect medium (d = .5–.6) differences.

Recruitment and data collection occurred between January 2012 and March 2014. Assessments were conducted by assessors trained extensively in the assessment and management of suicide risk (Linehan et al., 2012). Assessments were completed at five time points: phone screening (T0), baseline (T1), one-week (T2), four-weeks (T3), and twelve-weeks post-intervention (T4). Except for the baseline assessment, all assessments were completed over the phone. Screening (T0) and follow-up (T2, T3, T4) interviews took approximately 30–45 min, while baseline (T1) assessment was completed in approximately 40–50 min. All follow-up interviews were conducted by assessors who were blind to intervention condition assignment. The one exception to the blind assessment was during the follow-up interviews when a non-blind assessor (typically the principal investigator) interviewed the participant regarding their use of specific strategies taught in their assigned intervention condition. The blind assessor was absent from the room during this part of the interview. Participants were eligible to receive up to $45 in compensation for completing all the study assessments.

2.2. Participants and eligibility criteria

Eligible participants were 18 years or older, reported experiencing suicidal ideation in the last week (i.e., scoring ≥10 on the Scale for Suicidal Ideation; Beck et al., 1979), had not received mental health treatment in the month prior to screening, lived within commuting distance to the research office, and were willing to consent to study procedures. Of note, for the first seven months of active enrollment, eligibility requirements required participants to be without mental health treatment during the previous year. When recruitment progressed much more slowly than projected, inclusion criteria were revised to exclude only those individuals who had received treatment in the last month. Exclusion criteria were kept to a minimum; individuals were ineligible if they were non-English speaking or had significant cognitive impairment (i.e., scoring ≥8 on the 6-Item Cognitive Impairment Test; Katzman et al., 1983). Notably, current psychiatric medication was not an exclusionary criterion; however, if the individual had met with their prescribing provider in the past month, they were excluded. This was evaluated as a potential confounding factor in all presented analyses.

Potential participants were recruited from the community using a variety of strategies to reach individuals who were not already receiving mental health services. Recruitment strategies were largely a replication of a previous study (Ward-Ciesielski, 2013). All study methods were approved by the appropriate institutional review board.

2.3. Randomization

A minimization randomization algorithm was used to match participants on three variables that may have spuriously impacted analytic results: identified gender, history of suicide attempts, and whether the participant was interested in mental health treatment. Following completion of the in-person assessment battery, matching data for all participants were entered into a computerized system which utilized the minimization randomization algorithm to ensure equal numbers of participants at each level of the matching variable. Participants were randomized using a 1:1 ratio, such that equal numbers of participants were assigned to the experimental condition (DBT-BSI; n = 46) as to the control condition (RT; n = 47). The participant flowchart (CONSORT diagram) is presented in Fig. 1.

2.4. Interventions

The interventions were provided by three masters'-level therapists. Every attempt was made to schedule the in-person intervention appointment within three days of the phone screening and the average time between the phone screening and the in-person appointment was