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Distress Tolerance Skills for College Students: A Pilot Investigation of a Brief DBT Group Skills Training Program

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ABSTRACT

This report outlines the evaluation of a brief dialectical behavior therapy (DBT) group skills training program for students presenting with serious psychological concerns (referral reasons included suicidality, self-injury, and substance use). Students were enrolled in distress tolerance groups ranging from 7–10 weeks. The majority of the students in the sample were receiving psychiatric medication, individual therapy, or both. All students (N = 22) demonstrated significantly improved scores on measures of emotion regulation and functional and dysfunctional coping. These results are the first to show that targeted skills training with DBT mindfulness and distress tolerance skills can produce beneficial outcomes in college students in the context of a short-term intervention.

KEYWORDS

Brief group intervention; college students; dialectical behavior therapy; distress training; skills training

As the number of college students diagnosed with mental health concerns has risen over the past decade, campus mental health professionals are faced with meeting the increasing demands of a student body with reportedly higher levels of stress than the previous generation of students (Galatzer-Levy, Burton, & Bonanno, 2012). Dialectical Behavior Therapy (DBT) has been increasingly applied in university counseling settings likely due to beneficial outcomes related to enhancing regulatory capacities and reducing dysfunctional behaviors (Linehan, Bohus, & Lynch, 2007). Two programs housed in college counseling centers have published data on their work using the comprehensive DBT model (Engle, Gadischkie, Roy, & Nunziato, 2013; Pistorello, Fruzetti, MacLane, Gallop, & Iverson, 2012). The comprehensive DBT model consists of individual therapy, group skills training, phone coaching, and a therapist consultation team. DBT group skills training, a component of the comprehensive model, is frequently offered in settings where it may not be clinically feasible to offer a comprehensive, multicomponent treatment (Linehan et al., 2015). Recent research has also demonstrated that DBT
group skills training may be more feasible for implementation in college counseling centers than the other components of the comprehensive model (Chugani & Landes, 2016).

In a systematic review of the treatment literature on DBT skills training in the absence of other DBT modalities, preliminary analyses of 17 published studies indicated initial support for the use of skills training as a stand-alone treatment for a range of behavioral and emotional issues (Valentine et al. 2015). Brief DBT skills training groups for college students have been shown to reduce depression and borderline personality disorder (BPD) traits, improve adaptive coping (Meaney-Tavares & Hasking, 2013) and produce significantly higher rates of treatment attendance and therapeutic alliance, and significantly lower rates of attrition from treatment (Uliaszek, Rashid, Williams, & Gulamani, 2016). Rizvi and Steffel (2014) examined the feasibility of an abbreviated 8-week emotion regulation DBT skills training group and found that participants reported significant improvements on measures of emotion dysregulation, affect, and skills use, regardless of whether mindfulness skills were included in the content. Time-limited DBT skills training groups delivered in a college counseling center as an adjunct to treatment as usual produced significantly better outcomes related to adaptive and maladaptive coping behaviors compared to treatment as usual alone (Chugani, Ghali, & Brunner, 2013).

Finally, Panepinto, and colleagues (2015) examined a 12-week DBT skills training group offered for any student who presented with a need to increase coping skills and found that students demonstrated significant improvements in a range of psychological symptoms, global severity, as well as all four of the key areas targeted by DBT skills content (i.e., confusion about self, impulsivity, emotion dysregulation, and interpersonal chaos). Although DBT skills training has shown promise as an effective intervention in clinically diverse samples of college students, a continuing challenge is that the DBT skills training manual (Linehan, 2015) currently contains enough skills to run weekly groups for a full year without repeating content. Given that this is likely not feasible for delivery in the college counseling setting due to limitations on staff time, resources, and changes in student schedules from semester to semester, many DBT skills training groups for college students have offered a small selection of content from each skills training module (i.e., mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness skills; Chugani et al., 2013; Meaney-Tavares & Hasking, 2013; Panepinto et al., 2015; Uliaszek et al., 2016). In contrast, this study aims to investigate the preliminary effectiveness of delivering the complete content for two of the modules (mindfulness and distress tolerance).
**Aims**

The primary aims of this study were to assess whether brief DBT skills training groups focused on mindfulness and distress tolerance skills only were sufficient to produce improvements in (a) emotion regulation and adaptive behavioral skills use and (b) reductions in dysfunctional coping skills use in a clinically diverse sample of college students. Only one previous study examines the delivery of a specific module of DBT skills with college students (i.e., emotion regulation skills; Rizvi & Steffel, 2014). This study adds to that work by demonstrating the preliminary effectiveness of mindfulness and distress tolerance focused skills training groups for college students.

**Method**

Overall, 42 students were enrolled in the mindfulness and distress tolerance modules of DBT skills training groups ranging from 7–12 weeks in length during the study period. Students were not incentivized to complete assessments and many students did not complete postintervention assessments, as these were administered at the last group session (near to final exams) when many students elected not to attend groups. Consequently, only 22 students with complete pretest and posttest data are included in the analyses presented here. These students were enrolled in groups ranging from 7–10 weeks in length.

**Participants**

Participants were 22 undergraduate (n = 5) and graduate (n = 17) students who presented for services at the counseling center of a major private university. This sample was 86% (n = 19) female and ranged in age from 18 to 33 (mean = 25.00; SD = 3.96). The ethnic/racial breakdown of the sample was: African American (n = 1), Asian/Pacific Islander (n = 1), Biracial (n = 1), Caucasian (n = 18), and Hispanic/Latino (n = 1). Approximately 77% (n = 17) were receiving medication and 77% (n = 17) were receiving individual therapy (three students received DBT-informed individual therapy from the first author, but did not receive phone coaching or any extra components of DBT). All students in the sample met criteria for a mood and/or anxiety disorders (mood only n = 1, anxiety only n = 3, two disorders n = 6, three disorders n = 11, four disorders n = 1).

Potential participants were referred to the first author for screening to be included in a DBT group by therapists in the counseling center. Common reasons for referral were history of suicidal ideation, nonsuicidal self-injurious behavior, chronic suicidality, alcohol and drug problems, or difficulty managing emotions when overwhelmed by academic or other stressors. Upon referral, the first author met with each student for a 30-minute screening
appointment and also discussed the reasons for referral with the referring therapist. Students were included in the group if they displayed at least three of the five areas of dysregulation described by Linehan (1993a; emotion, behavioral, cognitive, interpersonal, and self-dysregulation, as assessed by the clinical judgment of the first author). Participants were excluded if they presented with active psychosis or disruptive behavior that would contraindicate a group intervention.

**Procedures**

The university institutional review board approved all study procedures. Each group was 90 minutes long and began with 3 weeks of mindfulness skills, followed by several weeks of distress tolerance skills (from Linehan, 1993b; Linehan & Wolbert, 2011). The first author developed group skills training content outline (see Table 1) from the mindfulness and distress tolerance skills training modules because she believed that these were most relevant to the students for whom the program aimed to serve. Both mindfulness and distress tolerance skills were included (as opposed to delivering solely distress tolerance) because the mindfulness skills are considered to be foundational to all other DBT skills training modules and are repeated between all other modules. It is important to note that at the time of delivery, the content offered represented the entirety of the content for mindfulness and distress tolerance that was currently available (this study was conducted prior to the publication of the second edition of the DBT skills training manual; Linehan, 2015). Lengths of groups varied depending on when a sufficient number of group members had been recruited. Some shorter groups were offered in an attempt to provide groups that started midway through the semester. All groups received the same skills content, regardless of the number of weeks the group ran. The first author designed the skills content with a 10-week group in mind, but knew that some groups would have to be less than 10 weeks for various reasons (e.g., recruitment). She received expert consultation regarding methods of covering the same amount of material in a shorter time frame when necessary. However, students who attended the shorter groups reported (informally) that the content seemed rushed.

Outcome measures were obtained pretreatment and posttreatment and were administered at the beginning of the first group (prior to delivery of any skills training) and at the end of the last group. In cases where a student missed the first group, they were asked to come a few minutes early to the second group session in order to complete preintervention assessments before receiving any DBT skills training. No assessments were administered after the second group session. In cases where students missed the final group, the first author attempted to follow-up with them individually to obtain completed postintervention assessments.
### Table 1. Outline of Skills Training Content.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Handouts</th>
<th>Worksheets/Homework Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Module: Mindfulness</strong>&lt;br&gt;Orientation, goals, and guidelines</td>
<td>G1: Goals of skills training&lt;br&gt;G3: Guidelines for skills training&lt;br&gt;G4: Skills training assumptions</td>
<td>Pros &amp; cons of engaging in DBT&lt;br&gt;Identify own additional goals for skills training&lt;br&gt;Identify own group interfering behaviors</td>
</tr>
<tr>
<td><strong>Mindfulness: “What” skills</strong></td>
<td>M4: Taking hold of your mind: “What” skills—observe, describe, and participate</td>
<td>MW4: Mindfulness “what skills”: observing, describing, and participating&lt;br&gt;MW4A: Observing, describing, and participating checklist</td>
</tr>
<tr>
<td><strong>Mindfulness: “How” skills</strong></td>
<td>M5: Taking hold of your mind: “How” skills—nonjudgmentalness, one-mindfulness, and effectiveness</td>
<td>MW5A: Nonjudgmentalness, one-mindfulness, and effectiveness checklist</td>
</tr>
<tr>
<td><strong>Module: Distress Tolerance</strong>&lt;br&gt;Introduction to distress tolerance crisis survival skills: Pros and cons (all from Linehan, 1993b)</td>
<td>Goals of distress tolerance&lt;br&gt;Overview crisis survival skills&lt;br&gt;When to use crisis survival skills&lt;br&gt;DT1: Pros and cons</td>
<td>Think about additional goals for distress tolerance for yourself and share in the next group session&lt;br&gt;Thinking about pros and cons of tolerating distress and of not tolerating distress</td>
</tr>
<tr>
<td><strong>TIP skills</strong></td>
<td>DT6: TIP skills changing your body chemistry (ice water, intense exercise, paced breathing, progressive relaxation)</td>
<td>Practice the TIP skills—provided handouts with scripts for progressive muscle relaxation (Linehan &amp; Wolbert, 2011, training materials)</td>
</tr>
<tr>
<td><strong>Distracting skills, self-soothing, improving the moment</strong></td>
<td>DT1: Distract, self-soothe, improve the moment (all from Linehan, 1993b)</td>
<td>DTW1: Crisis survival strategies: distract, self soothe, improve the moment&lt;br&gt;Create your own self-soothing first aid kit.</td>
</tr>
<tr>
<td><strong>Reality acceptance</strong></td>
<td>DT10: Overview reality acceptance&lt;br&gt;DT11: Radical acceptance&lt;br&gt;DT11a: Factors that interfere with radical acceptance&lt;br&gt;DT11b: Practicing radical acceptance step by step</td>
<td>DTW8: Reality acceptance skills&lt;br&gt;DTW8a: Reality acceptance skills&lt;br&gt;DTW9: Radical acceptance</td>
</tr>
<tr>
<td><strong>Turning the mind, willingness, half smiling, and willing hands</strong></td>
<td>DT12: Turning the mind&lt;br&gt;DT13: Willingness&lt;br&gt;DT14: Half smiling and willing hands&lt;br&gt;DT14a) Practicing half-smiling and willing hands</td>
<td>DTW10: Turning the mind, willingness, and willfulness&lt;br&gt;DTW11: Half-smiling and willing hands</td>
</tr>
<tr>
<td><strong>Mindfulness of current thoughts or allowing the mind</strong></td>
<td>DT15: Mindfulness of current thoughts&lt;br&gt;DT15a: Practicing mindfulness of thoughts</td>
<td>DTW12: Mindfulness of current thoughts&lt;br&gt;DTW12a: Practicing mindfulness of current thoughts (allowing the mind)</td>
</tr>
</tbody>
</table>

**Note.** All students received mindfulness skills prior to distress tolerance skills, as the mindfulness skills are taught between all DBT skills training modules and are foundational to all other DBT skills. All materials are 2011 updated materials received by the first author during a DBT training event unless otherwise specified. DBT = Brief Dialectical Behavior Therapy; G = General Handout; M = Mindfulness; DT = Distress Tolerance; W = Worksheet; TIP = Temperature, Intense Exercise, Paced Breathing, Paired Muscle Relaxation.
Students who did not attend a minimum of five sessions were not assessed for outcomes regardless of the length of the group they attended. Given that the shortest group was 7 weeks, a minimum of 5 weeks attended was determined to be a reasonable minimum. In addition, students who missed three groups in a row were considered to have dropped out of group (this is an adaptation of the “four miss rule” from the standard DBT model, which specifies that clients who miss four sessions in a row are considered to have dropped out of therapy, Linehan, 1993a). The first author (who began a 2-year DBT intensive training in February, 2014 and received expert consultation throughout this process) facilitated all groups with the assistance of a predoctoral intern, doctoral practicum student, psychiatric nurse practitioner, or psychiatry resident. The groups were offered every fall, spring, and summer from Spring 2014 to Spring 2015.

**Measures**

The DBT Ways of Coping Checklist (DBT-WCCL; Neasciu, Rizvi, Vitaliano, Lynch, & Linehan, 2010) is a 59-item self-report measure that includes subscales for DBT skills use and maladaptive coping skills use (α = .91). The scale can be divided into two subscales: maladaptive coping strategies (α = .86) and DBT-related adaptive coping strategies (α = .89). The DBT-WCCL has been demonstrated to have good to excellent psychometric properties (dependent upon the subscale used, with the functional scale having somewhat better internal consistency; Neasciu et al., 2010).

The Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004) is a 36-item self-report measure that assesses difficulty in regulation of emotions (α = .89). The DERS has been demonstrated to have good test–retest reliability, high internal consistency, and adequate construct and predictive validity (Gratz & Roemer, 2004).

Counseling center records were also reviewed to determine current diagnosis as well as whether the student was receiving medication and/or individual therapy.

**Results**

All analyses were completed using SPSS 24.0. Repeated measures general linear modeling analyses were conducted to examine change in the two primary outcome measures (DERS and DBT-WCCL) across the course of treatment. Cohen’s d effect sizes were computed, with small, medium, and large effect sizes defined as .2, .5, and .8, respectively (Cohen, 1988). There were no significant differences between treatment completers and noncompleters on any of the measures. Results revealed significant changes (F = 35.21, p < .001) in the DERS from pretreatment (mean = 113.41, SD = 16.33) to posttreatment (mean = 84.23, SD = 22.80). This effect was in the large range
There was a significant change ($F = 53.31, p < .001$) in the dysfunctional scale of the DBT-WCCL from pretreatment (mean = 2.00, $SD = .37$) to posttreatment (mean = 1.23, $SD = .49$). This effect was in the large range ($d = 1.77$). Finally, there was a significant change ($F = 21.22, p < .001$) in the functional scale of the DBT-WCCL from pretreatment (mean = 1.59, $SD = .48$) to posttreatment (mean = 2.02, $SD = .44$). This effect was also in the large range ($d = .93$).

**Discussion**

The findings of this study offer promising, albeit preliminary, insights into the future possibilities for DBT groups in college counseling centers. Recent research has demonstrated that DBT group skills training may be more feasible for implementation in college counseling centers than the other primary components of the treatment (i.e., individual therapy, phone coaching, and consultation team; Chugani & Landes, 2016). In addition, centers may have difficulty serving students throughout the semester with standardized interventions (e.g., a group that must run for 12 weeks may not be available to students who present midsemester). Similar to the intervention reported here, Panepinto and colleagues’ (2015) DBT skills training group reportedly ran anywhere from 6 to 13 weeks, depending upon the length of time needed to recruit group participants. To our knowledge, this work represents the second study that demonstrates utility of a specific DBT skills training module for brief treatment of a multidiagnostic, college student population. The students who participated in this intervention achieved statistically significant improvements in emotion regulation, decreases in the use of maladaptive coping strategies, and increases in the use of adaptive coping strategies with large to very large effect sizes. These findings are not altogether surprising, as a main goal of the distress tolerance module is to get through difficult times without making things worse (i.e., without resorting to maladaptive behaviors that are rewarding in the short term, but damaging in the long term). This goal is achieved through skills training for reducing maladaptive behaviors (e.g., radical acceptance) as well as use of adaptive strategies to tolerate current distress (e.g., crisis survival strategies).

It is also interesting to note that a single, motivated staff member delivered the intervention described here with support from student interns or other staff only as group cofacilitators or referral sources. As funding and time for staff-wide training undoubtedly represents a challenge for many centers, the model of service provision described here is the first to show that, under favorable conditions (i.e., high interest in DBT, access to intensive training and expert consultation), a single staff member may be sufficient to develop a center’s DBT program and to serve a substantial number of students. However, it is also important to consider the possibility that this may not be a sustainable model. Centers should work to develop their programs so
that at least one other staff member would be able to manage the delivery of groups in the event that the current group leader leaves the center.

Finally, while other researchers have focused on DBT programs designed to treat the most severely distressed students (e.g., personality disorders or traits; Chugani et al., 2013; Engle et al., 2013; Meaney-Tavares & Hasking, 2013; Pistorello et al., 2012), this study joins a small but growing body of literature that attempts to use brief, DBT-informed interventions to target a broad group of distressed and dysregulated college students (Panepinto et al., 2015; Rizvi & Steffel, 2014; Uliaszek et al., 2016). As increasing numbers of such students continue to present for services (Gallagher, 2014), it is important to develop interventions that are sufficient to manage their needs while also working to reduce burnout experienced by staff members and burden on the center’s existing structure and resources. Large-scale studies are needed to replicate the results reported here. Additionally, more research is needed to compare brief DBT-informed interventions in college counseling centers to time-matched, active comparison conditions to further elucidate the benefits of DBT skills training relative to other interventions that centers may already be providing.

Limitations

There are several limitations to this study. First, the size of the sample is quite small, limiting the generalizability of the findings. Second, all outcome data collected were in the form of self-report questionnaires. Third, there was a high level of missing posttest data, as assessments were typically administered during the final group session when many students missed group due to exams. Consequently, we were only able to analyze data from 22 of the 42 students who participated in the distress tolerance group and it is possible that these 22 students were less dysregulated than those who missed the final groups. In order to address this, we compared pretreatment scores of treatment completers to noncompleters and found that these groups of students were not significantly different with regard to the DERS or DBT-WCCL at pretreatment. However, it is still possible that the subgroup of students who were willing to complete preintervention and postintervention assessments were different in some regard, thus potentially limiting the generalizability of the results. Finally, we do not have evidence that the treatment effects found here are specific to DBT. Without inclusion of an active comparison condition, it is also possible that any type of intervention would yield similar results. Despite these limitations, these findings represent an important step forward in the development of DBT-informed interventions that are feasible and effective for delivery in college counseling centers. Future research should utilize larger-scale, randomized trials in order to future elucidate the results reported here.
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Conflict of interest disclosure

Carla D. Chugani receives compensation for consultation related to DBT program development and implementation in college counseling centers.

Note

1. In 2011, the first author attended a DBT training offered by Behavioral Tech, LLC entitled, “Mindfulness, Willingness, and Radical Acceptance in Psychotherapy.” At this time, the second edition of Linehan’s DBT skills was in development and she generously shared updated mindfulness and distress tolerance handouts with the participants. These are consistent with the handouts available in Linehan’s (2015) skills training manual.

References


