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Teaching Dialectical Behavior Therapy to Psychiatry Residents: The Columbia Psychiatry Residency DBT curriculum

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Abstract

Objective—Dialectical Behavior Therapy (DBT) is an evidence-based psychosocial treatment with efficacy in reducing self-harm behaviors in borderline personality disorder (BPD). This study describes and evaluates a clinical curriculum to teach DBT to psychiatry residents, developed at a large urban university hospital. The curriculum objectives are to: 1) have psychiatry residents achieve basic understanding of DBT theory and clinical skill, 2) increase residents' ability and confidence in treating self-harm behaviors (both suicidal behavior and non-suicidal self-injury) and 3) enhance residents' willingness to treat individuals with BPD.

Methods—In addition to a six-week didactic course on DBT offered to all residents (n=62), 25 elected to enroll in a year-long DBT clinical training curriculum over the course of a five-year period. The DBT clinical training consisted of 15 hours of additional didactics, ongoing conduct of individual therapy and group DBT skills training, videotaping of individual therapy sessions, and weekly supervision meetings utilizing videotape to provide feedback. Residents participating in the clinical training program videotaped baseline and later sessions, which were rated for DBT adherence. All 62 graduates of the program were surveyed regarding the impact of the training on their practice of psychiatry.

Results—Upon graduation, a high percentage (87% in the curriculum and 70% in the didactic course only) reported incorporating DBT into their psychiatry practice, and willingness and confidence in treating BPD and self-harm behaviors. Residents participating in the clinical training demonstrated significant improvement in their ability to utilize DBT interventions, particularly in structuring sessions, problem assessment, problem solving, and using validation and dialectical strategies.

Conclusion—This DBT curriculum was effective in preparing psychiatrists-in-training to incorporate evidence-based practices for effective treatment of BPD and self-harm behaviors, and

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can serve as a model for teaching DBT during psychiatry residency training. Limitations include a small sample size and lack of baseline survey measurement of attitudes for pre and post curriculum comparison.

Keywords

Residents: psychotherapy; Residents: Supervision

Introduction

The last few decades have seen the advent of psychotherapies specific to the treatment of borderline personality disorder (BPD), such as Dialectical Behavior Therapy (DBT), Mentalization Based Therapy, Transference Focused Psychotherapy, Schema Focused Therapy, and Systems Training for Emotional Predictability and Problem Solving (STEPPS) [1-5]. Each of these in their own way modify “psychotherapy as usual” to more directly engage individuals with BPD, and target and reduce their life threatening behavior and the difficulty they experience in fully engaging in treatment. Despite the emerging evidence of the efficacy of DBT in reducing self-harm behaviors, few psychiatry residency programs provide training in this, or in other BPD-specific approaches. Surveys of U.S. psychiatry residency programs have found that the minority of programs offer a specific didactic course in BPD, and that although DBT was the most commonly taught BPD-specific intervention, most programs lacked such instruction. [6,7]. Another survey [8] of psychiatry residency training programs in three states found that residents received “none or less than 1 hour” per month learning DBT, couples/family/group and child psychotherapy and expressed a preference for more. Thus, psychiatry residents, who are often front line clinicians for these patients, receive limited instruction and supervision on how to effectively manage behaviors associated with BPD, a diagnostic group which constitutes anywhere from 7-27% of outpatient psychiatric populations [9]. In addition, residents leave their training programs with limited expertise in how to effectively manage these behaviors in their post graduate positions in emergency rooms, inpatient units, and outpatient settings. The lack of BPD-specific psychotherapy training in residency can add to the reluctance on the part of psychiatrists to treat patients with BPD due to low levels of confidence in their ability to be effective [10].

In an effort to promote the inclusion of BPD-specific psychotherapy training into psychiatry residency programs, we present and evaluate a DBT clinical training curriculum developed and conducted at a psychiatry residency training program within a large urban university hospital, with the support of a NIMH Education Programs of Excellence in Scientifically Validated Behavioral Treatment R25 grant. The specific goals of this program were to increase the ability of psychiatry residents to obtain basic skills in conducting DBT, as well as to increase their willingness to and confidence in treating individuals with BPD and self-harm behaviors. While most resident psychotherapy education studies utilize pre- and post-surveys of perceived competence and willingness to practice as the main outcome, in this study we measure DBT skill improvement by coding videotaped sessions using the DBT adherence rating scale. In addition, very few studies compare different approaches to teaching DBT [11-13] or in teaching DBT to psychiatry residents [14] . In this study, we

compare the full 12-month DBT curriculum to a 6-week didactic course, including the residents who only received the required 6-week course in the basic theories and interventions of DBT as a comparison group to those who chose the additional 12-month clinical curriculum.

We hypothesized that the DBT training curriculum would result in increased ability of residents to use DBT principles and interventions. We also expected to find that residents who participated in the 12-month DBT clinical curriculum would be more likely than those who participated in the required 6-week didactic DBT class only to demonstrate; 1. enhanced willingness and confidence to treat individuals diagnosed with BPD and/or with self-harm behaviors, and 2. increased utilization of DBT interventions in the residents' post-graduation practice of psychiatry including psychotherapeutic practices and managing psychopharmacology patients.

Methods

The DBT clinical training curriculum

As part of the core-didactic training program, all third year (PGY III) psychiatry residents received six one-hour sessions on DBT. In addition, PGY III and PGY IV residents could elect to enroll in the DBT clinical training curriculum (DBT for Self-Harm: A Clinical Training for Psychiatry Residents). Following the Y-model approach to teaching psychotherapy competencies [15], our PGY I and II years focus on "stem" issues—or common core concepts—and the PGY III and IV years focus on the techniques of the specific psychotherapies [16]. DBT, a form of CBT (a "branch" of the Y) , has features distinctive from the "stem" core processes common to conducting psychotherapy, and therefore follows and builds upon the basic psychotherapy training courses placed in the earlier post graduate year curriculum.

The centerpiece of the DBT curriculum is a 12-month clinical training program that begins with a didactic intensive training (consisting of 12 hours of didactic workshops in addition to the 6 -hour core-didactic program) followed by a full year of weekly 1.5 hour group supervision teams (constituting approximately 75 hours of group supervision throughout the course of the year). Each resident is assigned 1-2 DBT individual psychotherapy cases that they carry throughout the 12 -month period. In addition, each resident has the opportunity to co-lead a DBT skills group for 3-6 months Therefore, the total time spent in the 12 month curriculum ranges from approximately 160-210 hours, depending on the number of individual training cases and the amount of time in the skill group rotation.

In skills group the residents provide instruction to the patients receiving individual DBT psychotherapy in the four DBT skills modules (Mindfulness, Distress Tolerance, Interpersonal Effectiveness and Emotion Regulation) through didactics, group exercises and homework assignments. Residents videotape their individual psychotherapy sessions and present them in supervision team to further enhance their learning of the DBT approach and therapy interventions.

(For a more detailed description of the curriculum, see Brodsky et al 2013) [17]

Evaluation of the Curriculum

DBT Adherence Ratings—Each resident enrolled in the clinical training program videotaped his or her individual DBT sessions. Videotapes at baseline and at a later time point during the year were reviewed using the DBT adherence scale [18] (by author BSB, who is a trained DBT adherence rater).

Using the DBT adherence rating system, we rated the residents on 62 DBT "behaviors" that comprise 10 scales. Each videotape was rated using the DBT adherence scale manual to assign a score of 0-5 on each of the 62 items. A zero rating on an item indicates that the particular DBT behavior was not present and was also not required in a given session. An example of an item that would receive a zero rating would be the discussion of termination, which would not be, nor should be, present , in a first or early psychotherapy session. Any zero score was not counted in the final adherence score. A score of "1" indicates that the DBT behavior was not used when necessary. Scores of "2-3" indicate that the behavior may have been present in a session but not as often, or in a skilled manner, as was required to be DBT adherent. A score of 4 indicates that the behavior was applied appropriately and determined to be DBT adherent. A score of "5" indicated excellence in applying the DBT behavior appropriately and in a DBT adherent manner throughout the session A total score of 4 (an average of the number of items rated) indicates DBT adherence. A paired t-test analysis was conducted to compare DBT adherence scores at baseline and follow up.

Post-Graduation Survey—A 20-item survey was sent to the 62 residents who were enrolled in the Columbia Psychiatry residency program during the 5 years (2009-2014) of the DBT curriculum grant period and who have since graduated. A description of the survey protocol was presented to the Institutional Review Board at the New York State Psychiatric Institute and was determined exempt from review. The participants included 37 residents who attended the didactic course only and the 25 graduates who participated in the additional clinical training curriculum. The 20-item survey asked graduates to describe the nature of their clinical practice, to indicate which (if any) DBT interventions they were incorporating into their practice, and to rate on a five point Likert scale their level of comfort and confidence in treating individuals with BPD and with suicidal symptoms. We used a Fisher's Exact text to compare outcomes between the two groups.

Results

Participants

A total of 25 psychiatry residents enrolled in and completed the course "DBT for Self-Harm: A Clinical Training for Psychiatry Residents." Six of the residents were in their PGY IV year. Nineteen of the residents were in their PGY III year. Six were male, 19 were female. The demographic breakdown of the 25 residents was as follows: 18 Caucasians, four Asians, and three African Americans.

Basic acquisition of skill in conducting individual DBT psychotherapy

From the 25 residents who participated in the DBT curriculum, we rated a total of 45 tapes using the DBT adherence scale (20 baseline and 25 tapes from sessions chosen randomly

from a subset of the total number of taped sessions that were conducted in the second half of the training year). We were missing 6 baseline tapes due to technical difficulties, refusal of patients to consent to videotaping, or timing issues in which residents did not record a videotaped psychotherapy session prior to the DBT intensive training.

Among those who took the DBT curriculum, the average DBT adherence score of the 20 baseline tapes was 3.2, with scores ranging from 2.1-3.9. A score of 4.0 is the cutoff to indicate DBT adherence. Thus, none of the residents demonstrated DBT adherence at baseline.

The average DBT adherence score of the 25 later session tapes was 3.9, with scores ranging from 3.0-4.2. Eleven of the 25 residents (44%) obtained a score of 4.0 or higher, indicating that they had demonstrated adherence to DBT in that session.

Residents demonstrated significant improvement in 7 of the 10 strategy areas of DBT clinical “behaviors”. There was no improvement in the areas of cognitive and irreverent strategies, and only a trend toward improvement in contingency management interventions (Table 1). Particular areas of growth were the following:

1) the ability to be directive in structuring individual psychotherapy sessions using diary cards and setting agendas according to the hierarchy of goals; 2) learning how to conduct problem assessments, particularly to define problems in behavioral terms, helping patients specifically describe their thoughts, cognitions and behaviors, conducting behavioral analyses when indicated; 3) engaging in active problem solving using DBT skills; 4) approaching patients with a validating stance and utilizing techniques of warm engagement; 5) balancing validation with change strategies, and seeking dialectical synthesis, which has to do with identifying opposites in a situation and trying to find the middle ground. For example, if a patient is having an argument with her mother and claims that her mother is wrong and that she, the patient, is right, the dialectical intervention might be to suggest that perhaps mother and patient are both wrong and both right, which could lead to finding a common ground or seeing the situation from the other perspective. (See Table 1 for or paired t-test analysis comparing 20 pairs of baseline and later session adherence to individual DBT strategies and total DBT adherence scores.)

Willingness and confidence in treating BPD and self-harming patients and utilization of DBT in clinical practice after graduation

Of the 25 residents who completed the DBT curriculum, 23 responded to the survey. Twenty-one out of 23 (91%) are currently practicing psychotherapy, and 20 (87%) reported that they incorporate DBT into their psychiatric practice.

Eighteen of the 25 psychiatry residency graduates responded to all 20-items of a survey that asked them to describe if and how the DBT training informs their current practice of psychiatry.

Twenty-seven of the additional 37 graduates who participated in the DBT didactic course (without the clinical training component) responded to the survey (73%). Among these

respondents, individuals indicated that they were clinically active with positions in inpatient, emergency, and/or outpatient settings

There were some significant differences between the two groups in terms of how many graduates incorporated specific DBT strategies into their clinical practice. A significantly higher percentage of residency graduates who completed the full year DBT curriculum reported using a nonjudgmental stance (100% vs. 81%, Fisher's Exact Test p = 0.03), active explicit validation strategies (94% vs. 46%, Fisher's Exact Test p = 0.01), and DBT to manage non-suicidal self-injurious (NSSI) behaviors (78% vs. 65%, p = 0.04) in their clinical practice than those who completed the didactic course only. A higher percentage of those who completed the full year curriculum reported that their DBT training contributed to their willingness and confidence in treating BPD and suicidal behaviors, and this difference approached statistical significance (94% vs. 70%, p = 0.06). A high percentage of graduates in both the full clinical curriculum and 6-week didactic course only groups reported using DBT in their practice of psychotherapy (87% and 78%). and high levels of confidence in treating BPD (72% and 63%) Both groups reported high levels of confidence in treating suicidal behavior (67% and 74%) .

Discussion

The group of psychiatry residents who chose to expand their DBT education through participation in the 12- month clinical training curriculum demonstrated increased DBT skills, willingness and a sense of confidence in treating BPD and suicidal patients, and in the incorporation of DBT interventions into post-residency psychiatry practice. These results are in agreement to those found by Frederick and Comtois [14], who compared the impact of four "dose" levels of DBT training among 30 graduates of the University of Washington DBT training for psychiatry residents (another of the few comprehensive DBT programs for psychiatry residents in the U.S.) and found that those who received clinical practice training in DBT were more likely than those who participated in a less intensive DBT workshop or seminar only, to be more confident in treating BPD and more likely to use uniquely DBT interventions. These results provide support for expanding the opportunities for psychiatry residents to learn more about treating BPD in general, and how to conduct BPD-specific psychosocial interventions, such as DBT, in particular.

There were significant differences between the two groups in actual practice of DBT – the graduates from the full DBT curriculum were more likely to take a nonjudgmental stance, use active, explicit validation, and use DBT to manage NSSI behaviors than did their colleagues in the didactics course only. Despite similar levels of willingness and confidence in working with BPD and suicidal individuals between the two groups, the more intensive curriculum resulted in greater likelihood to actually incorporate DBT into clinical practice.

Although the residents' willingness and confidence in managing suicidal behaviors could be the result of the standard clinical training they received during residency and not specifically due to the DBT curricula, not much is known regarding the extent to which residency training programs in general prepare and cultivate the attitudes of graduating psychiatry residents toward treating suicidal individuals. A national survey of chief psychiatry residents

suggests that, while a majority of residency programs routinely provide basic instruction in the recognition of risk factors and warning signs for suicide, learning how to manage these risk factors and warning signs warrants further attention [19]. Thus, current standard levels of instruction may leave graduating residents feeling under-equipped in the clinical management of suicidal behaviors, which may detract from willingness to and confidence in doing so. In our study, one resident's comment reflects the sentiment that the full-year curriculum did contribute to increased willingness and confidence: "Without DBT training I would be very reluctant to treat borderline personality disorder patients, and patients with recurring SI or NSSI". On the other hand, despite the enhanced exposure afforded by these DBT curricula, about 25% or more of the residents nevertheless reported feeling a lack of willingness and confidence in treating suicidal behavior upon graduation. Thus, given the alarming increase in suicide rate in this country over the past decade, residency training programs are one of numerous points of intervention that need to be examined for improved delivery of evidence based and best practices for suicide prevention.

The fact that the graduates in the didactics only group reported gaining as much as they did from the 6-hour introductory DBT course is of interest. The exposure, albeit brief, influenced some of the residents' view of BPD and how to conceptualize the disorder from a DBT perspective. Although unlikely, perhaps much of the skill, willingness, confidence and likelihood to use DBT and treat BPD gained in the clinical curriculum can be achieved to some extent through a 6-hour didactic course. More certainly, this finding suggests that there is much to be gained, in terms of educating residents to DBT principles, from relatively limited exposure through a didactic course. However, we believe that the small sample size, and the lack of videotaped sessions in the didactics only group, limited our ability to fully evaluate the differences between the two groups regarding their ability to utilize DBT interventions. In addition, it is possible that this finding might be unique to this particular psychiatry residency training program, perhaps due to competence level, contextual aspects of larger didactic program, or type of candidates attracted, and should be further studied in a variety of residency training programs.

We present a comprehensive clinical training program that was funded by a NIMH grant and which benefitted from the resources available, such as extensively trained clinical faculty and a strong psychotherapy training program within the residency training program. However, psychiatry residency programs are recognizing the need for and are finding ways to incorporate certain aspects of DBT clinical training, such as at the State University of New York Upstate program, where residents can elect to observe DBT skills groups [20]. With limited resources, The University of Washington/Idaho Advanced Clinician Psychiatry Track at Boise VAMC has created a "DBT on a Shoestring" curriculum which consists of an abbreviated 6- month didactic and supervision DBT track for psychiatry residents and an 8 - week DBT "crash course" for staff [21]. Similarly, the University of Minnesota Residency Training program developed an elective DBT curriculum, with weekly consultation and study groups for trainees [22]. At the University of Utah, residents operated a 6-month elective DBT clinic, attended weekly combined lecture/supervision groups and obtained on-line DBT skills training [23].

The inclusion of a comparison group to evaluate two levels of DBT exposure constitutes a strength of this study and resulted in our findings that even limited didactic exposure to DBT theory and interventions without clinical practice can increase confidence and willingness to treat BPD and suicidal behaviors. Additional exposure, in the form of clinical training and supervision, can increase the likelihood and ability to utilize DBT interventions in addition to impacting attitude change. Future evaluation studies of psychotherapy education can benefit from inclusion of a "control" group for comparison of different levels of training.

Another strength of our study was that rather than relying on pre- and post- self-report surveys of DBT practice, DBT skill was evaluated through adherence coding of videotaped psychotherapy sessions. With the advent of new videotape rating scales such as the A-MAP [24] for residency psychotherapy education, future studies can evaluate trainings in psychodynamic and CBT competency areas as well.

Limitations of the evaluation of this curriculum are that 1) we did not obtain a baseline rating of willingness and confidence in treating BPD and suicidality among the residents and therefore we cannot be certain that the post-graduate survey ratings of these attitudes were attributable to the clinical training, rather than baseline differences in interest in DBT or psychotherapy competence in general among those who chose the curriculum; 2) the rating of the videotapes was not blind – author BSB rated the tapes and she was also the primary supervisor of the residents in learning DBT, and the tapes were known to be either baseline or later sessions when they were rated; 3) the survey did not differentiate between recent and remote graduates and therefore the more recent graduates may have not had ample opportunity to utilize DBT in post graduate practice. In addition, the sample size is relatively small and we did not correct for multiple comparisons.

Nevertheless, the residents found the DBT training to be an important part of their training experience, and one that positively impacted their development as clinicians. DBT training has given them clinical tools to better understand BPD patients and self-harm behaviors, and how to intervene. This DBT curriculum was effective in preparing psychiatrists- in-training, and can provide a model for residency training programs to incorporate evidence-based practices for effective treatment of BPD and self-harm behaviors.

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Table 1

DBT strategies, baseline and later session mean scores

DBT strategy	Baseline sessions	Later sessions	t-score (df=20)	Significance
Total Score	3.2	3.9	−8.118	<0.001
Structural (7 items)	2.5	3.6	−7.253	<0.001
Problem Assessment (8 items)	3.3	3.9	−4.270	<0.001
Problem Solving (9 items)	2.5	3.3	−6.517	<0.001
Contingency Management (5 items)	2.7	3.7	−1.906	.071
Cognitive Strategies (5 items)	3.2	3.9	−.180	.859
Validation (7 items)	3.8	3.8	−4.873	<0.001
Reciprocal Communication (7 items)	4.0	4.3	−3.714	.001
Irreverent Strategies (3 items)	2.4	3.1	−.973	.342
Dialectical Strategies (6 items)	2.8	3.5	−4.061	.001