

# Training and Dissemination of Cognitive Behavior Therapy for Depression in Adults: A Preliminary Examination of Therapist Competence and Client Outcomes

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**Objective:** In this study, the authors examined the feasibility and effectiveness of training community therapists to deliver cognitive behavior therapy (CBT) for depression. **Method:** Participants were therapists ( $n = 12$ ) and clients ( $n = 116$ ; mean age = 41 years, 63% women) presenting for treatment of depression at a not-for-profit and designated community mental health center for St. Joseph County, Indiana. The training model included a 2-day workshop followed by 1 year of phone consultations. CBT competence ratings from the Cognitive Therapy Scale were obtained prior to training and at 6 and 12 months posttraining. Two different groups of clients, a treatment-as-usual (TAU) group ( $n = 74$ ) and a CBT group ( $n = 42$ ), were compared with respect to decrease in symptoms of depression (assessed with the Beck Depression Inventory) and anxiety (assessed with the Beck Anxiety Inventory). **Results:** Therapists showed significant increases in total scores from pretraining to 6 months posttraining, increases that were maintained at 12 months. The increase in the total score reflected gains on items that specifically measure CBT skills and structure. Although both TAU and CBT resulted in a significant decrease in depressive symptoms, the CBT clients showed significantly greater change than the TAU clients,  $F(2, 113) = 53.40, p < .001$ . The CBT clients also showed a significant decrease in anxiety symptoms, whereas the TAU clients did not. **Conclusions:** Although there remains a significant amount to learn to guide researchers' mission of improving the availability and effectiveness of treatment for individuals with depression, this study demonstrates that an empirically supported treatment can be implemented in a community mental health center and may result in improved outcomes.

**Keywords:** CBT dissemination, depression, CBT training, CBT competence

In spite of considerable research demonstrating the effectiveness of cognitive behavior therapy (CBT) in treating adult depression and reducing the risk of relapse and recurrence, CBT remains largely unavailable and untested in community settings. There is considerable press to redress this situation and to disseminate and

implement CBT and other evidence-based practices. A limited body of research suggests that it is possible to disseminate and implement CBT in routine mental health settings with results equivalent to those obtained in randomized clinical trials (RCTs; e.g., Merrill, Tolbert, & Wade, 2003), but such efforts are not widespread due in part to the lack of training opportunities and programs (Weissman et al., 2006). Training models that fit the needs and resources of community settings need to be developed and evaluated to determine whether they are feasible, effective, and able to be translated into improved client outcomes.

A few small studies (Lau, Dubord, & Parikh, 2004; Milne, Baker, Blackburn, James, & Reichelt, 1999; Sholomskas et al., 2005) have addressed pieces of the overarching question of how best to train community clinicians, but each has serious limitations ranging from an artificial assessment of therapist CBT skills, to the

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lack of even a quasi-experimental control condition, to unacceptable amounts of missing data. The issue of a control condition is critical to training and dissemination studies given that the justification and rationale for dissemination efforts are that therapies that have been shown to be effective in RCTs are superior to therapies already being offered in the community. Unfortunately, previous studies lacked a comparison condition by which researchers could assess whether CBT outcomes really were any better than the outcomes that therapists already had been obtaining. If what community therapists are already doing is as good as rigorously researched “gold standard” therapy, the justification for the dissemination of evidence-based practices becomes rather questionable.

We designed the current study to examine the feasibility and effectiveness of a CBT training model for community therapists while addressing some of the limitations of previous studies. Specifically, the study was designed to allow us to compare treatment-as-usual (TAU) outcomes obtained by therapists with CBT outcomes obtained by the same therapists after they participated in CBT training. The TAU condition provided a quasi-control group, something that has been notably lacking in previous studies of this kind. It was predicted that the training model would result in significant improvements in therapist CBT competence. A second prediction was that client outcomes, as assessed by changes in symptoms of depression and anxiety, would be superior for clients treated with CBT as compared with clients treated with TAU.

## Method

### Participants

The research participants were therapists and clients at the Depression Clinic of the Madison Center, a not-for-profit and designated community mental health center (CMHC) for St. Joseph County, Indiana.

### Therapists

All Depression Clinic therapists ( $n = 12$ ) participated in the study. Most of the therapists were women (75%) and held master's degrees (66%), whereas the remaining 34% held doctorates in psychology. The therapists' mean age was 55.4 years ( $SD = 5.6$ ); they had a mean number of 20.7 ( $SD = 4.2$ ) years in the field.

### Clients

The clients were 116 outpatients presenting for treatment of depression at the Madison Center. There were no inclusion or exclusion criteria other than willingness to participate and provide informed consent. Table 1 provides descriptive information on clients.

### Treatments

There were two different treatment groups: TAU and CBT. TAU was naturalistic, meaning there was no attempt to dictate the conceptualization, interventions, structure, or duration of treatment. Rather, therapists were asked to treat their depressed clients according to their experience and clinical judgment. The Depression Clinic therapists were already collecting session-by-session assessments of symptom severity and having regular team meetings. Therefore, the delivery of TAU was relatively untouched by the initiation of the research.

CBT did not follow a treatment protocol. Rather, therapists were encouraged to implement what they had learned in training and ongoing consultation (discussed later), to conceptualize clients' problems from a CBT perspective, and to implement interventions accordingly. As such, therapists functioned as independent CBT clinicians with no research constraints on parameters of treatment such as duration of treatment, schedule of visits, and so on. Clients were not randomized to TAU or CBT. Instead, the TAU clients were those treated prior to the CBT training. CBT clients were those treated by the same therapists after the initiation of training.

### CBT Training

Training consisted of a 2-day, 12-hr workshop on CBT for depression led by Christine A. Padesky and based on *Mind Over Mood* (Greenberger & Padesky, 1995). The workshop included didactics, live and video role-play demonstrations, and interactive exercises focused on conceptualization, behavioral activation, thought records, and behavioral experiments. Workshop themes included the importance of collaboration, Socratic methods to test beliefs, methods for debriefing homework to emphasize client learning, and the importance of helping clients keep written records of their learning. Following the workshop, therapists participated in sixteen 1-hr group telephone consultations that occurred every 3 weeks for 1 year following the workshop. Prior to each consultation, the therapists developed a set of questions that

Table 1  
*Client Demographic and Clinical Factors*

Domain/assessment	TAU ( $n = 74$ )	CBT ( $n = 42$ )	Total ( $N = 116$ )	$t(114)$	$\chi^2(1, N = 116)$	$p$
Age (years)	41	40	41	0.20		.85
Gender (% women)	62	66	63		0.24	.63
Depression—Mean BDI score ( $SD$ )	25.08 (10.54)	25.45 (13.03)	25.21 (11.45)			
Anxiety—Mean BAI score ( $SD$ )	17.20 (10.43)	12.59 (8.07)	15.53 (9.86)			
Primary diagnosis depression (%)	82	95	88		1.96	.16
Second Axis I disorder (%)	40	65	51		1.71	.19
Axis II disorder (%)	65	69	66		0.96	.33

Note. TAU = treatment as usual; CBT = cognitive behavior therapy; BDI = Beck Depression Inventory; BAI = Beck Anxiety Inventory.

were used to develop the focus and content of each of the consultations. The consultation sessions were not designed to be case supervision per se. Instead, they were viewed and executed as extended training on CBT for depression with topics suggested by the submitted questions.

## Measures

**Therapist competence.** The Cognitive Therapy Rating Scale (CTRS; Young & Beck, 1980) was used to rate the videotapes of the TAU and CBT therapy sessions. The CTRS is an 11-item scale developed to assess therapist CBT competence. Items are scored on a 6-point scale and cover general therapy skills (feedback, understanding, interpersonal effectiveness, and collaboration), CBT skills (guided discovery, focus on key cognitions and behavior, strategy for change, application of CBT techniques), and structure (agenda, pacing and efficient use of time, and use of homework assignments).

Therapists submitted three videotapes of sessions with three different clients. The first tape was of a TAU session occurring prior to the initiation of CBT training. The second tape was a CBT session occurring 6 months after initiation of training (CBT6). The third tape was a CBT session occurring 12 months after training had begun (CBT12). No attempt was made to control for phase of therapy of the taped session, the severity of the clients' depression, absence or presence of comorbidity, or other client variables that may (or may not) have influenced the therapists' conduct of CBT and subsequent CTRS rating. Rather, therapists simply were asked to videotape one TAU and two CBT sessions and were to decide which TAU and CBT clients to approach and ask to consent to participate in this aspect of the study.

Each therapy videotape was rated by the first author and advanced graduate students in the University of Oregon's doctoral clinical psychology program. The advanced graduate students had previously participated in at least 2 full years of CBT training and had been treating clients using CBT with supervision from the first author. Raters viewed each tape in its entirety, and each rater first independently made his or her own ratings on all CTRS items. Next, raters shared their item-by-item ratings to determine a consensus rating for each item; when discrepancies were found between individuals' ratings on a given item, the item was discussed until all group members agreed on a single consensus rating. These consensus ratings were used in the data analyses. Analyses focused on changes in total CTRS scores as well as scores on the three CTRS subscales—General Therapy Skills, CBT Skills, and Structure—with higher scores indicating greater competence.

**Depressive symptoms.** The Beck Depression Inventory (BDI; Beck, Ward, Mendelsohn, Mock, & Erbaugh, 1961) was used to measure the severity of depressive symptoms. The 21 items are scored on a 0–3 scale to reflect the absence or degree of the symptom. The range of possible scores is 0–63, with higher scores indicating greater severity of depression. Psychometric properties of the BDI have been well documented (Beck, Steer & Garbin, 1988).

**Anxiety symptoms.** The Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988) was used to measure the severity of anxiety. The BAI includes 21 items reflecting the cognitive, somatic, and affective symptoms of anxiety. Clients respond to each item with a rating of how much they have been bothered by

that symptom on a 0–3 scale during the previous week, with higher scores indicating greater severity of anxiety. The psychometric properties of this measure show high internal consistency and reliability (Fyrich, Dowdall, & Chambless, 1992).

## Design

The design of the research was quasi-experimental with two phases. The first phase, TAU, involved the videotaping of TAU sessions and the assessment of clients' symptoms of depression and anxiety. Following the collection of TAU therapist competence and client outcome data, therapists initiated training as described previously. The second phase of the study, CBT, included the year-long consultations. During this time, the same study therapists initiated CBT with new clients presenting for treatment of depression; assessments of symptoms of depression and anxiety and videotapes of CBT therapy sessions were obtained.

## Statistical Analyses

We used general linear models (GLM) to compare CTRS scores for TAU, CBT6, and CBT12 sessions with a posteriori Student *t* tests conducted when the associated omnibus test was significant at the .05 level. We performed separate GLM analyses to compare scores on the three CTRS subscales. Prior to testing the hypothesis that CBT outcomes would be superior to those that had been obtained by the same therapists delivering TAU, we performed preliminary analyses to test for between-group baseline differences on client characteristics (Table 1). Finally, we performed analyses of covariance to examine the differences in BDI and BAI scores for the two treatment groups, controlling for baseline depression and anxiety. Nondirectional statistical tests were conducted, and the level of significance was set at .05.

## Results

### Effects of Training on CBT Knowledge and Competence

GLM analyses indicated that the full-scale CTRS scores were significantly different at the three different assessments,  $F(2, 28) = 7.74, p = .002$ . Post hoc *t* tests showed significant differences between the TAU and CBT6 tapes and between the TAU and CBT12 tapes. There was no difference between the CBT6 and CBT12 scores on the CTRS (See Figure 1).

Separate GLM analyses of the three CTRS subscales revealed the following. There was no significant difference in the TAU, CBT6, and CBT12 ratings on General Skills,  $F(2, 28) = 2.56, p = .09$ . There were significant differences in ratings for the three tapes on both CBT Skills,  $F(2, 28) = 7.29, p = .003$ , and Structure,  $F(2, 28) = 10.14, p = .0005$ . Post hoc analyses revealed that for both CBT Skills and Structure, there was a significant difference between TAU and CBT6 ratings scores and between TAU and CBT12 ratings. There was no significant difference on either CBT Skills or Structure between the CBT6 and CBT12 ratings (see Figure 1).

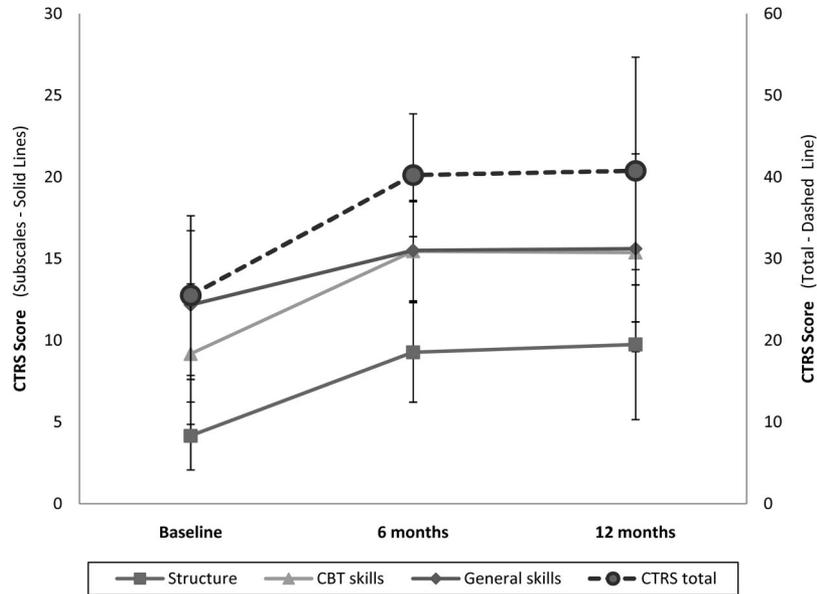


Figure 1. Changes in Cognitive Therapy Rating Scale (CTRS) scores over the course of training (Mean ± SD).

**Effects of TAU and CBT on Depression and Anxiety Symptoms**

To address the question of whether there were differences between the TAU and CBT groups with respect to change on the BDI and BAI from baseline to termination, we conducted two separate analyses of covariance—one for the BDI and one for the BAI—with the initial value as the covariate. CBT clients showed greater change on the BDI than TAU clients,  $F(2, 113) = 53.40, p < .001$ . Similarly, CBT clients showed greater change on the BAI than the TAU clients,  $F(2, 113) = 85.71, p < .001$ . (See

Figure 2) Cohen’s effect sizes were moderate with regard to BDI and BAI scores ( $d = .59$  and  $.60$ , respectively) in favor of the CBT group.

**Discussion**

In this study, we set out to examine the feasibility and effectiveness of a CBT training model for depression. The training model used in this study included a workshop and ongoing consultation to extend training. By 6 months, therapists had achieved competence in the delivery of CBT for depression and maintained

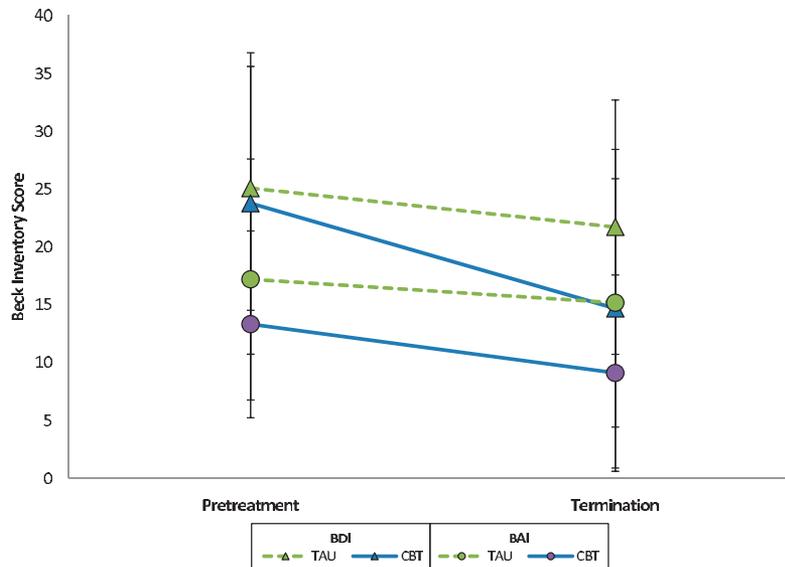


Figure 2. Changes in client Beck Depression Inventory (BDI) and Beck Anxiety Inventory (BAI) scores over the course of treatment (Mean ± SD).

this level of competence by 12 months. CBT clients showed significantly greater change with respect to symptoms of depression and anxiety as compared with TAU clients. These findings are encouraging, albeit very preliminary and open to alternative interpretations. The data are supportive of the major hypotheses that this training model would be feasible and effective. More important, the data support the idea that training therapists to deliver CBT would result in better client outcomes than what they had previously been obtaining with depressed clients.

### **CBT Training, Competence, and Specificity**

The study therapists developed and maintained specific CBT skills to a level of competence comparable to that considered the threshold for competence in RCTs. Critics of CBT often suggest that CBT therapists are excessively preoccupied with both session structure and with the multitude of specific forms and interventions and therefore fail to attend to the therapeutic alliance. Data from this project fail to support this common misgiving. Examination of the different subsets of CTRS items revealed that with training, therapists significantly improved on specific CBT skills and structure without sacrificing their high scores on general therapy skills.

Another commonly held notion about CBT is that the specific ingredients of behavioral activation, problem solving, cognitive restructuring, homework, and so forth add little or nothing to the nonspecific processes that some believe to mediate most or all effective psychotherapies (e.g., Wampold, 2001). However, this study can be seen as contributing some support to the specificity notion. After therapists added CBT skills to their already well-developed general skills, they achieved better outcomes as assessed by pre-post changes on the BDI. It is notable that the structure elements of therapy that Shaw and colleagues (1999) found to be most highly related to outcome in CBT were the items (along with the specific CBT skills items) on which the therapists in this study showed the most change. Therapists in the present study already possessed excellent general skills and, after adding CBT-specific skills to their repertoires, obtained better outcomes with depressed clients. Therefore, it might be that these processes specific to CBT were indeed responsible for the superior outcomes. Although the TAU and CBT clients would appear to be comparable on obvious variables that might have influenced outcome, treatment was not randomly assigned, and factors other than the addition of CBT skills may well account for the differences between treatment groups. For example, the CBT clients stayed in treatment longer and had more sessions than the TAU clients. Amount of treatment, rather than CBT per se, might account for the better outcomes; it is not insignificant that CBT clients stayed in therapy longer. Although we have no way of knowing why CBT clients returned for more sessions, it is not unreasonable to speculate that they did so because they were experiencing benefit. Also, exit interviews with the therapists suggest that they were more intent on scheduling more frequent appointments because CBT gave them a plan that made sense. Clearly, without a more fine-grained analysis of the relationship between competence and outcome, any claim for specificity must remain merely promising.

Of course, there also are qualifications to the interpretation of the CTRS data. The videotaped sessions reflected only a fraction of the number of sessions conducted with the entire client sample.

One can surmise that therapists desired to put their best work on display and chose clients accordingly. This therapist self-selection of videotaped sessions may have inflated CTRS scores. However, it was not the case that therapists were habitually videotaping sessions and then had the luxury to cherry pick which tape to submit. Videotaping was far from standard operating procedure in this CMHC. After a client consented and participated in a videotaped session, this became the TAU or CBT tape for that therapist. A bigger concern is whether the skill level seen in the small subset of tapes was uniformly high across all clients seen by these therapists, as all clients were included in the outcome analyses. As such, we do not want to overstate the claim that therapists were trained to a high level of overall CBT competence.

### **Client Outcome**

Our preliminary results add to the growing literature suggesting that CBT is effective when delivered by community clinicians to typical clients in a CMHC. More important, the results simultaneously suggest that, at least in this particular CMHC, the outcomes achieved through the introduction of CBT were better than the outcomes obtained by the same therapists prior to CBT training, though we acknowledge there are alternative interpretations of the data. And although the assessment of outcome was limited to self-report measures of symptoms of depression and anxiety, the results on these measures are roughly comparable to those achieved in RCTs with more homogeneous client samples in which clients terminated treatment, with BDI scores in the mild range.

It is worth noting that during the consultation period, the therapists often clamored for specific training on CBT for anxiety disorders, as so many of their clients had both depression and anxiety. Believing that focusing on depression and learning how to conceptualize and treat it from a CBT perspective would be the most effective use of the ongoing consultation, we resisted the temptation to diffuse the training by focusing on anxiety. Given this, it is interesting that anxiety symptoms also showed greater improvement in the CBT condition. This finding dovetails nicely with recently reported experimental work by Craske and associates who found that a targeted, single-disorder-focused CBT, compared with a version of CBT that "strayed" toward CBT for the comorbid disorders, yielded more positive effects on both on the target anxiety disorder as well as the comorbid anxiety and depression (Craske et al., 2007).

### **Limitations**

We already have acknowledged the many limitations that temper confidence in the results and their interpretation. Perhaps the most important limitation is the already mentioned fact that clients were not randomly assigned to TAU or to CBT and therefore may not have been equivalent on important prognostic variables other than those we assessed. It is possible, therefore, that group differences in outcome were not due to treatment. Further, we made no attempt to control or equate between TAU and CBT treatment group factors such as treatment duration, number of sessions, medication, or other adjunctive therapies. Again, as this study was simultaneously quasi-experimental and naturalistic, such constraints on treatment as are typically imposed in a RCT were

considered undesirable (and also unfeasible). Beyond looking at these treatment variables as predictors of outcome that may trump the “CBT is better” explanation, these variables also can be considered as important outcomes in and of themselves. As mentioned, in addition to use of random treatment assignment and controls for potentially important therapy variables, a more extensive assessment battery would have produced a study with more internal validity that could have allowed us to rule out competing interpretations of the results and address more questions. Further, a larger and randomly selected sample of therapy tapes would increase the validity of the CTRS findings. However, our overarching objectives were to examine the feasibility of our training model, to address the question of whether community clinicians could be trained to deliver CBT within the normal operating procedures of a CMHC in which little or no research had previously been conducted, and to obtain at least a tentative picture of pre- and posttraining outcomes. These objectives were met and may embolden and strengthen future attempts to conduct this kind of research. There remains a significant amount to learn to guide researchers’ mission of improving the availability and effectiveness of treatment for individuals with depression.

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