

# Behavioral Activation Group Therapy in Public Mental Health Settings: A Pilot Investigation

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Depression is among the most common psychiatric disorders seen in mental health practices. Although effective treatments for the condition exist, managed care pressures providers to utilize empirically supported, cost-effective treatments. Behavioral activation (BA) treatment for depression has emerged in recent years as a promising, cost-effective intervention for major depressive disorder. If its effectiveness could be established, BA delivered through a group format would offer additional cost effectiveness over its individual therapy counterpart. This investigation examined the effects of behavioral activation group therapy (BAGT) for depression in public mental health settings. The results suggest that BAGT can be a valuable addition to the practicing psychologist's set of interventions to use with depressed clients.

Depression affects more than 10 million adults each year in the United States (Narrow, Rae, Robins, & Regier, 2002). It is estimated that at any point in time, approximately 3% to 13% of the U.S. population suffers from major depressive disorder (Kessler et al., 1994). The prevalence rate for depression is twice as high for women as for men (American Psychiatric Association, 1994).

Numerous treatments for depression are available to practicing clinicians. Among the most effective and well-tolerated psychological treatments for depression is cognitive behavioral therapy (CBT; Dobson, 1989). Scientific investigations have revealed CBT to be as effective or more effective than antidepressant medication treatments (Beck, Hollon, Young, Bedrosian, & Budenz, 1985; Hollon et al., 1992; Hollon, Shelton, & Loosen, 1991; Murphy, Simons, Wetzel, & Lustman, 1984; Rush, Beck, Kovacs, & Hollon, 1977). Furthermore, clinical research has demonstrated that CBT for depression is the preferred treatment in terms of its ability to prevent future episodes of depression (Blackburn, Bishop, Glen,

Whalley, & Christie, 1981; Evans et al., 1992; Hollon et al., 1992; Kovacs, Rush, Beck, & Hollon, 1981; Simons, Murphy, Levine, & Wetzel, 1986).

In an attempt to refine CBT for depression, Jacobson et al. (1996) discovered that only the behavioral activation (BA) component of CBT for major depressive disorder was necessary to produce a positive treatment outcome. In their study, the BA component achieved clinically significant effects from treatment termination to 2-year follow-up. Furthermore, these effects were equal to those obtained for the full CBT protocol. This demonstration suggested that BA might serve as a stand-alone treatment, capable of offering greater efficiency than the full CBT protocol. In today's managed health care environment, efficient interventions that retain their effectiveness carry great value to the psychotherapy industry.

One of the ways in which therapeutic efficiency has been acquired irrespective of the type of therapy used or clients treated has been through the use of group interventions (Shapiro, Sank, Shaffer, & Donovan, 1982). On the surface, the group modality accrues obvious therapeutic efficiency in terms of its capacity to reach a larger number of clients, as compared with individual therapy. The clinical literature suggests that group therapy is indeed a valuable alternative to individual psychotherapy, achieving nearly equivalent therapeutic outcomes (see reviews by Fuhri-man & Burlingame, 1994; Piper & Joyce, 1996; Smith, Glass, & Miller, 1980). If BA could be implemented in a group modality, then a "multiplier effect" on efficiency might occur.

The present investigation sought to determine whether this could be accomplished in a "real world" health care service setting consisting of four community mental health (CMH) managed care environments. The goals were twofold; first, to fashion the Jacobson-style BA treatment into a stand-alone group treatment for major depressive disorder and second, to administer it in a real world setting with clients sampled from a CMH clinic. We also were interested in the acceptability of this newly derived intervention from the clients' perspective.

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## Evaluating Behavioral Activation Group Therapy (BAGT) for Depression Participants

Thirty-seven adults seeking mental health services for unipolar depression at four public CMH agencies qualified for inclusion in the study. Seven participants dropped out of the study before beginning treatment. Four participants dropped out of treatment before completing the minimum number of sessions required for inclusion in the final analysis, leaving 26 participants who completed the study.

Participants met criteria for major depressive disorder according to the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM-IV*; American Psychiatric Association, 1994). They scored at least 20 on the Beck Depression Inventory—Second Edition (BDI-II; Beck, Steer, & Brown, 1996) and 14 or greater on the Revised Hamilton Rating Scale for Depression (RHRSD; Warren, 1994). Exclusion criteria included bipolar or psychotic subtypes of depression, panic disorder, current alcohol or other substance abuse, past or present schizophrenia or schizophreniform disorder, organic brain syndrome, and mental retardation.

### Setting, Design, and Outcome Measures

All assessment and treatment sessions were conducted in four rural CMH service agencies. Eight practicing staff therapists, two from each agency, delivered the treatment. Most therapists held a master's degree in social work or psychology. One held a doctoral degree in psychology, and all were licensed by the state to deliver mental health services. A pretest–posttest wait list control design was used. Participants were assigned to either the immediate treatment (IM) or wait list condition (WL). All participants were evaluated (a) before treatment, (b) at the termination of treatment, and (c) at 3-month follow-up.

The Structured Clinical Interview for Diagnosis of *DSM-IV* (SCID; First, Spitzer, Gibbon, & Williams, 1997), the BDI-II (Beck, Steer, & Garbin, 1988; Steer, Ball, Ranieri, & Beck, 1997) and the RHRSD (Warren, 1994) were used to assess depressive symptomatology. The BDI-II was administered at every therapy session during the course of treatment to monitor change on a weekly basis. WL participants were assessed at the beginning and at the end of a 4–6-week waiting period. Once the waiting period ended and participants began BAGT, WL participants were assessed on the same schedule as the IM condition participants.

### Special Circumstances

Because a large number of participants were expected to be receiving medication treatment along with BAGT, a special procedure was implemented to address this potentially confounding variable. Participants who were taking psychotropic medication at the onset of BAGT were (a) required to be on a maintenance dose of the medication for a minimum of 6 weeks prior to participating in the study and were (b) asked not to change their medication use during the course of BAGT treatment. This included changing dosages, terminating medication use, and/or starting a new medication. Participants who were not being treated with psychotropic medication at the onset of BAGT treatment were asked not to start psychotropic medication use while receiving BAGT treatment.

### Treatment

The theory and practice of BAGT was based heavily on the BA manual developed by Jacobson et al. (1996), which was derived from Beck's original cognitive therapy manual (Beck, Rush, Shaw, & Emery, 1979). The adaptation of BA to a group therapy format was completed with a BAGT manual developed to guide treatment in this investigation. The BAGT manual is a "hands on" manual that was written for clinicians who did not have a strong background in cognitive-behavioral psychology. A BAGT treatment manual was provided to all therapists and included detailed session-by-session steps to be implemented at different phases of treatment.

On the basis of a biopsychosocial conceptualization of the pathogenesis of depression, the overall purpose of BA treatment for depression is to (a) determine the life circumstances that have precipitated the depression, (b) determine the coping patterns that have exacerbated the depression, and (c) develop a treatment plan for improving the coping patterns and for providing access to more reinforcing life circumstances (Jacobson et al., 1996). These goals were seen as achievable through the use of a variety of behavioral interventions described in detail in the BAGT manual. (Interested readers can obtain copies of the BAGT therapist and client manuals from Jeffrey F. Porter.)

BAGT sessions occurred weekly for 10 weeks. Each session lasted 95 min. Before each therapy session, all participants were asked to complete a BDI-II. For BAGT, two cotherapists led a group of 6–10 participants. Cotherapists were responsible for reviewing BDI-IIs at the beginning of each session, leading group discussions focused on BA principles, soliciting group member disclosure, planning and evaluating interventions, and providing feedback to group members.

### Findings

#### *Preliminary Analyses: Demographics of Participants*

The majority (89%) of participants were female. The mean age was 44 years and most participants (92%) were Caucasian. Thirty percent of the participants had less than a high school education. Thirty-five percent of the participants had an annual income of less than \$10,000, with an additional 27% of participants having an annual income between \$10,000 and \$20,000. These demographics represent about what would be expected of clients served at small, rural CMH agencies. There was no significant difference between the IM and the WL group on BDI-II scores at screening,  $t(35) = 0.17, p = .87$ . A significant difference between the IM and WL groups on RHRSD scores at screening,  $t(35) = 2.24, p = .03$ , was obtained, suggesting a greater degree of clinician-rated depressive symptomatology at screening for the WL participants. A paired sample  $t$  test on the WL group comparing their BDI-II scores at Pretest 1 and Pretest 2 showed no significant change during the waiting period on the BDI-II,  $t(19) = 13.00, p = .90$ . Taken together, these analyses suggest that participants were sampled from the same population and that WL participants did not experience any significant change in depressive symptomatology from the beginning to the end of the wait period, as measured by the BDI-II. Furthermore, the initial difference on the RHRSD favoring greater severity in the WL group is of little consequence in this

design inasmuch as all participants met clinical criteria for major depressive disorder.

*Primary Analyses: BAGT Effects on BDI-II, RHRSD, and Diagnostic Status*

A statistically significant reduction in depression symptoms, as measured by the BDI-II and the RHRSD, resulted from BAGT treatment from pretesting to follow-up assessment for both the IM and WL groups; for BDI-II,  $F(2, 50) = 16.53, p < .0001$ ; for RHRSD,  $F(2, 50) = 30.27, p < .0001$ . There were no differences between the groups nor was there a Group  $\times$  Phase interaction. Figures 1 and 2 present these findings graphically for visual inspection. The stable Pretest 1 to Pretest 2 scores on the BDI-II for the WL group suggest that the WL condition itself did not lead to significant improvement and that no concurrent conditions affected outcomes. This was important in light of the fact that many participants were taking psychotropic medications.

As an additional measure of clinically significant change, DSM-IV diagnoses at screening were compared with DSM-IV diagnoses at posttreatment and at 3-month follow-up. Figure 3 presents the frequency of major depression diagnoses at these three times for all participants who completed treatment. At screening, all 26 participants (100%) who completed the study met DSM-IV criteria for major depressive disorder. At posttreatment, 7 participants (26.9%) met DSM-IV criteria for major depressive disorder, whereas at 3-month follow-up, 7 participants (26.9%) met DSM-IV criteria for major depressive disorder. These results suggest that approximately 3 out of 4 participants were free of a major depressive disorder 3 months after treatment. A Cochran's Q nonparametric analysis of these diagnostic data confirmed that this drop in the number of participants diagnosed with major depressive disorder across assessment periods was statistically significant,  $\chi^2(2, N = 26) = 20.83, p < .001$ . The findings from the self-rating (BDI-II), therapist rating (RHRSD), and the structured interview data (SCID) suggest a significant improvement for clients who received BAGT in this investigation. The results from the WL control procedure confirmed that the observed change was due to the application of BAGT intervention.

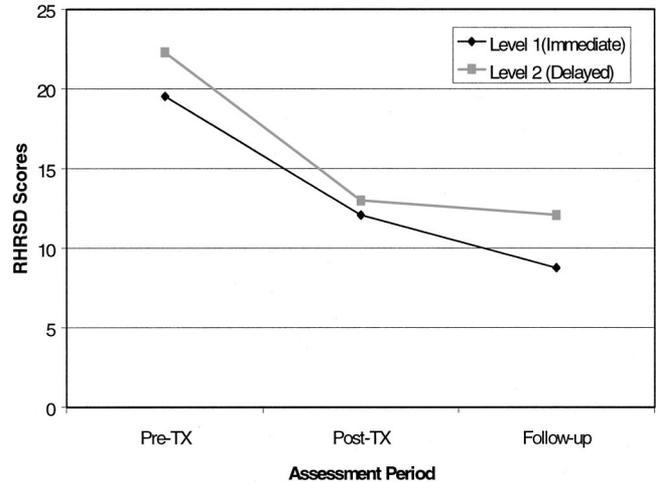


Figure 2. Revised Hamilton Rating Scale for Depression (RHRSD) scores by assessment phase over time as a function of treatment (TX).

Post Hoc Analyses: Effects of Medications on BAGT Outcomes

*Post Hoc Analyses: Effects of Medications on BAGT Outcomes*

Because a large number of participants were concurrently taking psychotropic medications, it was important to demonstrate that the findings were due to BAGT rather than to psychotropic medications. To achieve this goal, we examined the mean BDI-II and RHRSD scores at all assessment times by separating the sample into BAGT alone and BAGT plus medication participants (74% of the treatment completers were receiving antidepressant medications while receiving BAGT). This analysis revealed that participants in both conditions changed significantly from pretest to follow-up assessment on both dependent measures and that there were no significant differences between the two groups. Consequently, it appeared that the reduction in depressive symptomatol-

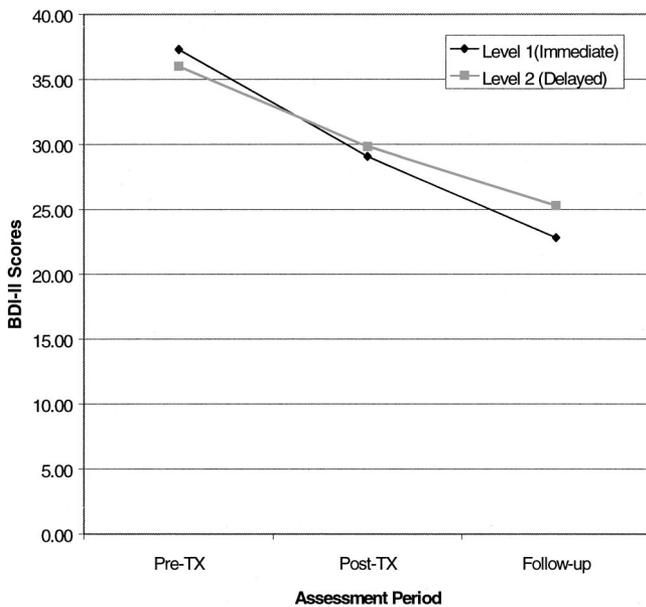


Figure 1. Beck Depression Inventory—Second Edition (BDI-II) scores by assessment phase over time as a function of treatment (TX).

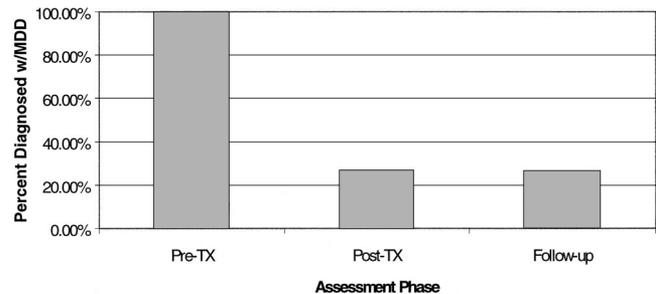


Figure 3. Change in diagnostic status across assessment periods. MDD = major depressive disorder; TX = treatment.

ogy was to a significant degree attributable to BAGT, irrespective of medication status.

### *Implications for Practice and Future Research*

The purpose of this study was to examine the effectiveness of BAGT as a treatment for major depressive disorder in a sample of real world participants. The findings indicate that BAGT led to significantly reduced self-ratings of depression, independent assessor ratings of depression, and formal diagnoses of major depressive disorder from pretesting to 3-month follow-up. Moreover, neither the use of psychotropic medications nor participants' status as IM or WL explained the findings. Although the end-state functioning of participants in this study did not achieve "normal" status, as assessed by the BDI-II, clearly the improvement was both statistically and clinically important, as evidenced by the change in diagnostic status that occurred for the majority of participants.

We believe that the results of this study have important implications for the clinician who treats major depressive disorder in a cost-conscious environment. Under the current model, significant improvement in major depressive disorder was obtained in only 10 sessions (or less) utilizing a group therapy format. From a purely economic perspective, the use of a group format allows the clinician to deliver a greater amount of service per unit of time, compared with individual therapy, thereby resulting in the potential to generate greater amounts of revenue while at the same time reducing treatment costs for clients. Additionally, the use of the group modality allows the clinician to provide services to a greater number of individuals, which is of great consequence in regions where access to mental health care is limited.

When compared with other psychological treatments for depression, such as interpersonal therapy or CBT, BA stands out as a more concrete and tangible approach. Interventions are behavioral in nature and target specific behaviors for change. This benefits both the treatment provider as well as the recipient. For the provider, BAGT is relatively easy to learn and administer, and compliance with the manual is easy for the individual therapist to assess. For the recipient, BAGT's focus on observable behaviors is desirable because participation does not require abstract thought processes. Consequently, clients who have limited intellectual abilities, regardless of whether they are imposed by the depressive condition, can successfully complete the behavioral assignments that lead to improvement in the depressive condition.

Although we examined the effectiveness of BAGT delivered using a cotherapist model, we cannot foresee any theoretical or practical reasons why BAGT could not be successfully administered by a single therapist with group therapy skills. One aspect of this study that warrants reconsideration in future investigations is the length of treatment and its impact on treatment outcome. We somewhat arbitrarily chose to limit the number of treatment sessions to a maximum of 10 (while utilizing a minimum cutoff for inclusion in data analysis of at least 6 sessions). This decision was made to be consistent with our goal of developing a cost-effective treatment for depression. However, in our evaluation of consumer satisfaction, many participants recommended extending the treatment for additional sessions. This, coupled with the observation that BDI-II scores continued to decrease from posttreatment to follow-up, serves to strengthen our belief that severe depression is

slow to respond to treatment and thus requires intervention over a period longer than 10 weeks. The finding that participants recommended extending the length of treatment suggests both that the intervention was acceptable to them and that it contained clinical value as a treatment for their depression.

Finally, we received overwhelming support from study participants regarding the use of the BAGT patient manual. Many participants cited the manual as the most important element of the treatment, stating that it gave them something concrete to learn from and that it provided easily accessible help when they experienced recurrences of depression after treatment had concluded. This finding makes intuitive sense to those of us who treat depression inasmuch as during the presence of depression, cognitive functioning is depressed, making problem solving and creative thinking difficult. Consequently, anything that can help the individual manage depressive symptoms, while at the same time reducing cognitive burden, is a valuable tool in the treatment of depression. It was in this manner that the BAGT patient manual appeared to have occupied a valuable place in the posttreatment period.

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