Cognitive Therapy for Depression

A Comparison of Individual Psychotherapy and Bibliotherapy for Depressed Older Adults

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Thirty-one community-residing older adults age 60 or over either received 16 sessions of individual cognitive psychotherapy (Beck, Rush, Shaw, & Emery, 1979) or read *Feeling Good* (Burns, 1980) for bibliotherapy. Posttreatment comparisons with the delayed-treatment control indicated that both treatments were superior to a delayed-treatment control. Individual psychotherapy was superior to bibliotherapy at posttreatment on self-reported depression, but there were no differences on clinician-rated depression. Further, bibliotherapy participants continued to improve after posttreatment, and there were no differences between treatments at 3-month follow-up. Results suggest that bibliotherapy and that individual psychotherapy are both viable treatment options for depression in older adults.

Keywords: *bibliotherapy; depression; psychotherapy; cognitive therapy; older adults*

National surveys of mental health have shown that depressive disorders are among the most common problems experienced by older adults. Prevalence rates of major depression have been estimated at 3% to 5%, and up to an additional 12% to 15% of older adults experience significant depressive symptoms (Blazer, 1989, 1991; Newman, 1989). Studies, however, have demonstrated that psychosocial treatments for geriatric depression are quite effective as reported in a meta-analysis (Scogin & McElreath, 1994).

Cognitive therapy is one of the most commonly used therapeutic techniques for the treatment of geriatric depression. Cognitive therapy has been suggested as being particularly well suited for older adults because older adults experience a disproportionate number of unchangeable negative events; the emphasis of cognitive therapy is on the development of a more adaptive view of oneself and of one's situation (Gallagher-Thompson & Thompson, 1995). Furthermore, an informal survey of depressed older adults participating in a cognitive group-therapy study revealed that the opportunity to use their minds in new ways was one of the most enjoyable aspects of the therapy experience. They appreciated the therapists' respecting their ability to process new ideas (Yost, Beutler, Corbishley, & Allender, 1986).

Cognitive therapy for geriatric depression has been administered in different formats (e.g., individual psychotherapy, group psychotherapy, and self-administered or bibliotherapy) and has been compared with medication, other psychosocial treatments, and attention-placebo or no-treatment control groups. Individual psychotherapy is by far the most commonly used delivery modality (see review by Teri & McCurry, 2000). Bibliotherapy, the reading of a self-help book for psychological treatment, has not been as frequently studied. The purpose of this study was to examine the effectiveness of cognitive bibliotherapy relative to individual cognitive psychotherapy and to delayed-treatment control.

The efficacy of cognitive bibliotherapy for geriatric depression was first investigated in a study comparing cognitive bibliotherapy with an attention control and a delayed-treatment control (Scogin, Hamblin, & Beutler, 1987). Results indicated that the cognitive bibliotherapy was significantly better than both the control conditions on measures of depression. Follow-up scores indicated that the benefits were main-

tained at 1 month after the end of treatment. A second test of cognitive bibliotherapy involved a comparison of cognitive bibliotherapy, behavioral bibliotherapy, and a delayed-treatment control group (Scogin, Jamison, & Gochneaur, 1989). There were no differences between the immediate-treatment groups at posttreatment, and both were superior to the delayed-treatment control. Analysis of the 6-month follow-up data revealed that treatment effects were maintained, and there were no differences between the cognitive and the behavioral treatments.

STATEMENT OF THE PROBLEM

Bibliotherapy has some advantages over other treatments in that it is self-paced, more convenient, less costly, and does not have the stigma associated with seeing a mental-health professional. The purpose of this study was to compare cognitive bibliotherapy, individual cognitive psychotherapy, and a delayed-treatment control to determine treatment efficacy for an older adult population. It was anticipated that the differences between bibliotherapy and individual psychotherapy would be minimal and that both would be significantly better than control.

METHOD

PARTICIPANTS

Participants were recruited in the Tuscaloosa, Alabama, and Birmingham, Alabama, area. The primary and most successful recruitment tool was a newspaper article asking for study volunteers. Other recruiting techniques included paid newspaper advertisements, a television news interview, listing on the television community-access channel, flyers distributed at health fairs, flyers posted throughout the community, and depression talks given at senior-citizen activity centers.

Persons who inquired were screened by the first author (Mark Floyd) using the following inclusion criteria: (a) 60 years of age or

older; (b) no life-threatening illnesses; (c) ability to read as indicated by self-report; (d) no concurrent psychological or psychiatric treatment, except if on antidepressant medication, after receiving a stable dosage for a minimum of 3 months; (e) absence of self-reported or of evident thought disorders, bipolar disorder, alcoholism or substance dependence, or immediate suicide risk; (f) a Diagnostic and Statistical Manual of Mental Disorders (*DSM-IV*) diagnosis of Major Depressive Disorder or a diagnosis of Minor Depression or Dysthymia and a score of 10 or higher on the Hamilton Rating Scale for Depression (Hamilton, 1967); and (g) absence of apparent cognitive impairment as evidenced by a score of 8 or higher on the Mental Status Questionnaire (Kahn, Goldfarb, Pollack, & Peck, 1960).

The recruiting period began in September 1995 and continued until June 1997. There was a total of 111 inquiries, and 46 volunteers entered the study. Of the 65 who inquired but did not enter the study, 27 did not meet the depression criteria, 14 were not interested in participating after learning more about the study, 8 were inquiries made for an older relative, 5 were too young, 1 could not participate because of health problems, 1 chose to obtain medication, and 1 could not be reached because of a disconnected phone. Eight were excluded from the study for the following reasons: 4 for cognitive impairment, 1 for current suicidal intentions, 1 for bipolar disorder, 1 for schizophrenia, and 1 for vision problems.

The participants were 35 females and 11 males. The average age was 68 (ranging from 60 to 80) and the average level of formal education was 14 years (ranging from 9 to 22). Regarding race, 43 were Caucasian, 2 were African American, and 1 was Hispanic American. Of participants, 41% were married, and 43% were living alone. Seventeen percent of the participants had a history of psychiatric hospitalization, and 26% were currently taking antidepressant medication. The most common pretreatment diagnosis was major depressive episode, and for 70% of the participants, it was either a chronic or a recurrent episode. There were no significant differences between treatment conditions (immediate or delayed) or between the treatments (bibliotherapy or individual psychotherapy) for the demographic variables.

ATTRITION

Fourteen participants dropped out of the study before the posttreatment assessment. The reasons given by the participants for discontinuing treatment were that four decided to try medication instead, three had significant health problems, three were too busy, two thought the treatment involved too much work, one moved out of town, and one increased her antidepressant dosage without realizing that it violated the protocol of the study. A dropout rate of 30% is not unusual for psychotherapy treatment studies (Elkin, 1994). One additional participant in the delayed-treatment group was not depressed at Time T2 (pretreatment assessment) and decided not to participate in the treatment. Thus, a total of 31 participants completed the treatment. Univariate ANOVAs indicated no differences between treatment completers and noncompleters on any of the demographic or the pretreatment variables. There were no significant differences between number of dropouts in active treatments. This suggests dropout from the study was not related to treatment conditions.

Six of the participants who completed treatment did not participate in the follow-up assessment. Three participants were not willing to come in or could not be scheduled for the assessment, two participants could not be contacted, and one participant died.

MEASURES

Outcome measures. The primary depression-severity measures were the Hamilton Rating Scale for Depression (HRSD) and the Geriatric Depression Scale (GDS). The HRSD is a 21-item scale that is considered the interview standard for the assessment of depression and that includes questions about mood, guilt, interest level, suicidal ideation, somatic complaints, and disturbances in appetite, libido, and sleep. Scores of 10 or more are generally taken to indicate the presence of depressive symptoms, and scores of 17 or more almost always indicate the participant meets the *DSM-IV* criteria for Major Depressive Disorder (Scogin, 1994). Interviewers were trained in the use of the HRSD by a licensed clinical psychologist. HRSD reliability in this study was checked by taking a random sample of 16 interviews rated

independently by two interviewers. The correlation of scores on individual HRSD items was acceptably high, $r = .80$, and there was complete agreement on 74% of all items scored. *DSM-IV* diagnoses were made based on information obtained from the HRSD with supplemental questions to address symptoms not included on the HRSD (e.g., cognitive problems or prior episodes).

The GDS is a 30-item measure of depression that uses a yes-no answer format. The initial validation study indicated high internal consistency, with alpha of .94, and high convergent validity, as indicated by a correlation of .83 with the HRSD (Yesavage et al., 1983). Yesavage et al. (1983) suggested a cutoff score of 10, with scores of 11 or higher indicative of depression. This cutoff score has been determined to be extremely accurate for outpatient older adults, with a sensitivity of .96 and specificity of .96 (Olin, Schneider, Eaton, Zemansky, & Pollock, 1992).

In addition to measures specifically for depression, the Brief Symptom Inventory (BSI) (Derogatis & Spencer, 1993) was used in this study to provide an indication of overall pathology. The BSI is a 53-item self-report instrument that measures symptoms on nine scales of distress and on three global indices. The nine BSI symptom scales are Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism. The three global indices are the global severity index (GSI), the positive symptom distress index (PSDI), and the positive symptom total (PST). The BSI dimensions and the indices all have good internal consistency, with alphas ranging from .71 to .85, and good test-retest correlations, which range from .68 to .91 (Derogatis & Spencer, 1993). The BSI has shown good validity, as indicated by significant correlations with the Symptom Checklist 90-Revised (SCL-90R) and the Minnesota Multiphasic Personality Inventory-2 (MMPI) scales (Derogatis & Spencer, 1993). In this study, the global severity index (GSI) was the specific measure used from the BSI.

Additional measures. Additional measures were used primarily for the purpose of manipulation checks for the treatments. These measures included completion of homework assignments; the score on a

Cognitive Bibliotherapy Test (Scogin, Jamison, Floyd, & Chaplin, 1998); and the Cognitive Therapy Scale (CTS) (Young & Beck, 1980). Homework compliance in cognitive therapy has been described as essential to effective treatment (Beck et al., 1979), and a positive relation between homework completion and successful outcome has been found (Neimeyer & Feixas, 1990; Persons, Burns, & Perloff, 1988). For bibliotherapy participants, number of pages read in *Feeling Good* served as the measure of homework completion. Number of pages read in the book was assessed during weekly telephone contacts with bibliotherapy participants. For participants in the individual-psychotherapy condition, the number and the type of homework assignments varied depending on the participant's specific needs. To obtain a measure of homework compliance for individual psychotherapy, the therapist rated the participant on percentage of assignments completed. Completion ratings were done at the end of treatment by comparing the actual homework turned in by the participant with the total number of assignments made for the participant.

The Cognitive Bibliotherapy Test is a 23-item, true-false test of the principles of cognitive therapy. The test has an internal validity of .77 and a test-retest reliability of .80. The test was designed to measure the learning of cognitive-therapy principles presented in *Feeling Good*.

The CTS gives an indication of the purity of the cognitive therapy administered and the effectiveness of the therapist. The CTS is an 11-item, observer-based scale with two subscales: the General Skills subscale and the Specific Cognitive Therapy Skills subscale. The internal consistency of the CTS is good, with items correlating well with their respective subscale, the other subscale, and the CTS total score, indicating a homogenous scale (Vallis, Shaw, & Dobson, 1986). In this study, only the CTS total score was used.

PROCEDURE

After the telephone screening by the first author, participants who met entry requirements and expressed interest in the study were invited for the initial assessment. At the initial assessment, study procedures were again explained, and participants completed an informed-

consent form. Next, their initial depression level was assessed on the HRSD. If they met depression criteria, they were given self-report measures. After completion of the assessment, participants were randomly assigned to one of three conditions: immediate-treatment bibliotherapy, immediate-treatment individual psychotherapy, or delayed treatment. Delayed-treatment participants received treatment after a 4-week waiting period. At the end of the waiting period, and before starting treatment, participants in the delayed-treatment condition were assessed again. Half of the participants in the delayed-treatment condition received bibliotherapy, and the other half received individual psychotherapy.

The initial assessment included the HRSD, DSM-IV criteria, BSI, GDS, and the Cognitive Bibliotherapy Test. The follow-up assessment was conducted 3 months after completion of treatment. In each assessment, interview-based measures were administered first, followed by the self-report measures. Assessors were clinical-psychology graduate students who were blind to treatment condition and to time of assessment, with the exception of the first author, who conducted four posttreatment interviews and 14 follow-up interviews. A random sample of the first author's HRSD interviews was reviewed by an assessor who was blind to condition and to time and indicated that the first author's interviews and HRSD scores were not biased by knowledge of treatment status.

Self-report assessments were also done at the midpoint of each treatment condition. The self-report instruments used were the GDS, BSI, and the Cognitive Bibliotherapy Test. To minimize the inconvenience for the participants receiving bibliotherapy, these instruments were mailed with stamped return envelopes and with instructions for completion. Participants receiving individual psychotherapy were given their packet of instruments immediately after Session 8 and were asked to bring them when coming in for the next therapy session.

DESCRIPTION OF TREATMENTS

Bibliotherapy. After the initial assessment, subjects in the immediate-treatment bibliotherapy condition were given the book *Feeling Good* (Burns, 1980), a cognitive therapy self-help book. Participants were

asked to read the book and to complete all the homework exercises in the book within 1 month. The principal investigator called each participant on a weekly basis to monitor adherence to the treatment conditions, to answer questions about the book, to note if they concurrently received any other psychological treatment, and to assess for deteriorating mental health. These telephone contacts were brief (5 minutes or less) and rarely involved answering questions about the book.

Individual cognitive psychotherapy. Those assigned to individual psychotherapy received 12 to 20 sessions of cognitive therapy administered by one of six therapists. Participants in the immediate-treatment condition began therapy as soon as possible after the initial assessment and followed a schedule of 2 sessions each week for the first 4 weeks and then for weekly sessions for the remaining 8 to 12 weeks. The therapy protocol followed recommendations of Beck et al. (1979), with modifications suggested by Yost et al. (1986) for older adults such as providing cues to maintain their attention, providing advance notice of tasks to complete, and providing ways to assist them with retaining the concepts presented in the sessions. Therapists were clinical-psychology graduate students trained in cognitive therapy. Training consisted of studying the available therapy manuals (Beck et al., 1979; Yost et al., 1986) and of practicing in mock therapy sessions. Therapists were supervised in weekly group sessions by a licensed clinical psychologist who practices cognitive therapy. These sessions consisted of reviewing portions of the audiotapes from prior therapy sessions, reviewing specific techniques, and planning future interventions. All therapy sessions were audiotaped. As a manipulation check, tapes from Session 5 and Session 10 were selected as being representative of early and of late sessions for grading on the CTS. Each participant's Session 5 and Session 10 tapes were rated on the CTS by a psychologist who was not involved in training the therapists. Therapists were blind to which tapes were being rated.

Delayed treatment. Participants assigned to the delayed treatment were told that they would return in 4 weeks for another pretreatment assessment and that then would begin one of the two treatments. The first author called each participant weekly to note if they concurrently

received any other psychological treatment and to assess for deteriorating mental health. These telephone contacts were brief to minimize the effects of contact with the investigator and to control for the telephone contact received by participants in the immediate-treatment bibliotherapy condition. After the 4-week waiting period, participants were randomly assigned to one of the two treatments and followed the same treatment procedures described above for immediate treatment.

Note that the treatments had different durations and that the assessments were conducted at different times (see Table 1). Bibliotherapy was completed in 4 weeks, and individual psychotherapy was completed in 12 weeks. For immediate-treatment bibliotherapy, the assessment schedule was Time 1 (T1) at pretreatment, midtreatment at two weeks, Time 2 (T2) at posttreatment (4 weeks), and Time 3 (T3) at 3-month follow-up (16 weeks after starting treatment). For immediate-treatment individual psychotherapy, the assessment schedule was T1 at pretreatment, midtreatment after eight sessions (4 weeks), T2 at posttreatment (12 weeks), and T3 at 3-month follow-up (24 weeks after starting treatment). For the delayed-treatment condition, T1 was at the beginning of the waiting period, and T2 was 4 weeks later, at the end of the waiting period. The midtreatment, posttreatment (T3), and 3-month follow-up (T4) assessments were conducted according to the schedules outlined for the assigned active treatments, as explained above. The difference in time of assessment introduced the potential for extraneous influences to differentially impa

ct the groups; however, different durations were necessary to provide a comparison of treatments as conducted in prior research. Sixteen sessions of individual psychotherapy is consistent with most of the research on depression. Four weeks is consistent with prior research using cognitive bibliotherapy for depression.

RESULTS

The data were analyzed to address the following research questions: (a) Are the immediate treatments more effective than the delayed-treatment control? (b) Which of the two treatments is more effective? (c) Is there evidence supporting the cognitive mediation of depression?

TABLE 1
Assessment Schedule

Group	Start	2	4	6	8	12	16	20	24	28
						Week				
Bib	Pre	Mid	Post				FU			
CT	Pre		Mid			Post			FU	
WL-bib	Pre		Pre	Mid	Post			FU		
WL-CT	Pre		Pre		Mid		Post			FU

NOTE: Bib = immediate-treatment bibliotherapy; CT = immediate-treatment individual psycho-therapy; WL-bib = delayed-treatment bibliotherapy; WL-CT = delayed-treatment individual psychotherapy; Pre = pretreatment assessment; Mid = midtreatment assessment; Post = posttreatment assessment; FU = 3-month follow-up assessment.

ARE THE IMMEDIATE TREATMENTS MORE EFFECTIVE THAN THE DELAYED-TREATMENT CONTROL?

Depression variables and GSI. The means and the standard deviations for each of the variables by condition and by assessment time are shown in Table 2. Repeated measures univariate analyses were conducted from T1 to T2. There was a significant time-by-treatment interaction, with the immediate-treatment individual-psychotherapy condition superior to the delayed-treatment control condition on the HRSD, $F(1, 20) = 13.22$, $p < .05$; the GDS, $F(1, 20) = 23.48$, $p < .05$; and the GSI, $F(1, 20) = 13.62$, $p < .05$. Effect sizes for each of these comparisons are as follows: HRSD, $d = 2.01$, GDS, $d = 1.87$; and GSI, $d = 1.44$. The time-by-treatment interaction was significant, with the immediate-treatment bibliotherapy condition superior to the delayed-treatment control on the HRSD, $F(1, 25) = 13.20$, $p < .05$, $d = 1.38$; and on the GDS, $F(1, 25) = 8.01$, $p < .05$, $d = .80$. The time-by-treatment interaction on the GSI was nonsignificant.

End-point analysis. HRSD and GDS end-point data for the immediate-treatment conditions are shown in Table 3 along with the T2 data for the delayed-treatment control. End-point data were analyzed to address the potential for selection bias in the therapy completion process. End-point analysis is a procedure that carries the last data from noncompleters forward for use in analysis of subsequent assessment times. The time-by-condition interaction was significant in repeated

TABLE 2
Outcome Data by Condition

Condition	n	HRSD		GDS		GSI	
		M	SD	M	SD	M	SD
Time T1							
Bibliotherapy	16	17.12	5.43	16.06	6.63	64.44	8.98
Indiv. therapy	16	16.62	5.25	18.81	5.76	69.56	7.65
Delayed trmt.	14	16.36	5.09	15.86	7.06	66.00	6.09
Time T2							
Bibliotherapy	13	10.31	6.52	10.46	6.75	61.54	8.85
Indiv. therapy	8	6.00	2.73	7.13	2.64	58.00	6.63
Delayed trmt.	14	16.07	6.11	15.07	7.29	63.93	7.55
Time T3							
Bibliotherapy	10	4.56	4.07	7.60	6.70	57.80	8.34
Indiv. therapy	4	10.40	7.47	8.75	4.57	61.75	14.89
Delayed trmt.	10	7.30	5.36	8.00	7.67	56.80	6.84

NOTE: HRSD = Hamilton Rating Scale for Depression; GDS = Geriatric Depression Scale; GSI = Global Symptom Index of Brief Symptom Inventory; Bibliotherapy = bibliotherapy condition; Indiv. Therapy = individual-psychotherapy condition; Delayed trmt. = delayed-treatment condition; T1 = pretreatment; T2 = posttreatment for bibliotherapy and for individual therapy but pretreatment for delayed treatment; T3 = a 3-month follow-up for bibliotherapy and for individual therapy but posttreatment for delayed treatment.

TABLE 3
End-Point Data by Condition

Treatment Group	n	HRSD		GDS	
		M	SD	M	SD
Bibliotherapy	16	10.50	5.91	10.81	6.13
Individual psychotherapy	16	11.19	6.25	12.69	7.55
Delayed treatment	14	16.07	6.11	15.07	7.29

NOTE: HRSD = Hamilton Rating Scale for Depression; GDS = Geriatric Depression Scale. End-point data provided for individual psychotherapy and for bibliotherapy groups. Time T2 (second pretreatment assessment) data is provided for the delayed-treatment group.

measures ANOVAs for the HRSD, $F(2, 43) = 4.02, p < .05$. The time-by-condition interaction for the GDS just missed significance, $F(2, 43) = 3.12, p = .054$. Planned univariate comparisons between the active treatments and the delayed-treatment control on the HRSD
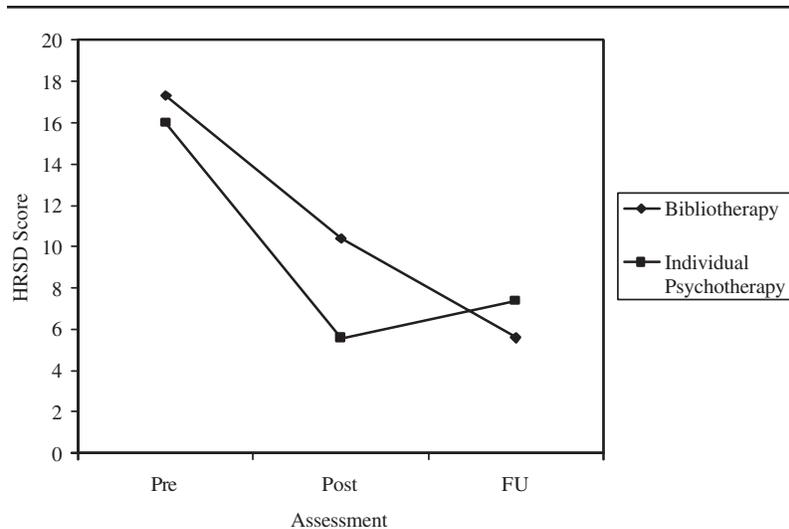
Figure 1.   Comparison of bibliotherapy and of individual psychotherapy on the HRSD at pretreatment, posttreatment, and 3-month follow-up assessments.
NOTE: Pre = pretreatment assessment; Post = posttreatment assessment; FU = 3-month follow-up; HRSD = Hamilton Rating Scale for Depression.

indicated that both the individual psychotherapy, $F(1, 28) = 4.65$, $p < .05$, $d = 0.79$, and the bibliotherapy, $F(1, 28) = 6.43$, $p < .05$, $d = 0.93$, were superior to control. On the GDS, neither individual psychotherapy nor bibliotherapy was significantly different from control; however, the bibliotherapy effect size appears to be larger.

WHICH OF THE TWO TREATMENTS IS BETTER?

To determine the relative effectiveness of the two active treatments, delayed-treatment participants were pooled with the immediate-treatment participants who had received the same treatment (individual psychotherapy or bibliotherapy). Repeated measures univariate analyses were conducted from pretreatment to posttreatment and from posttreatment to 3-month follow-up. Results for the HRSD and the GDS are shown graphically in Figures 1 and 2, respectively.

Pretreatment to posttreatment. The time-by-treatment interaction was significant from pretreatment to posttreatment for the GDS, $F(1,$
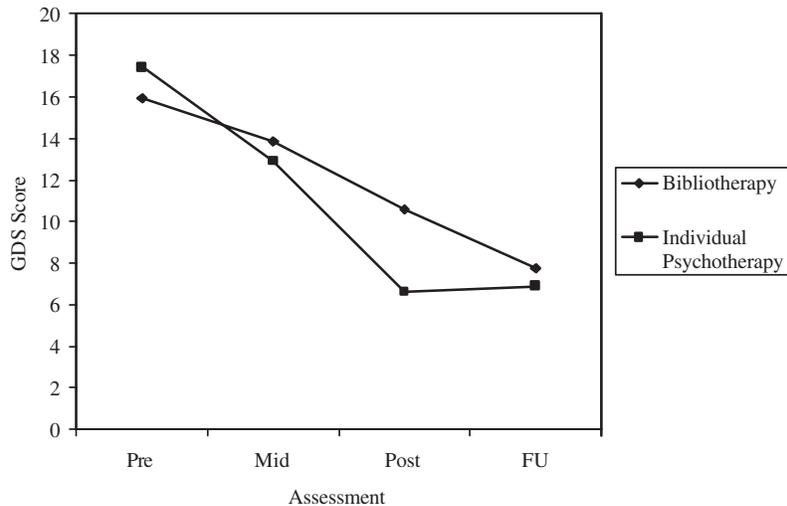
Figure 2.   Comparison of bibliotherapy and of individual psychotherapy on the GDS at pretreatment, midtreatment, posttreatment, and 3-month follow-up assessments.
NOTE: Pre = pretreatment assessment; Mid = midtreatment assessment; Post = posttreatment assessment; FU = 3-month follow-up assessment; GDS = Geriatric Depression Scale.

29) = 4.45, $p < .05$, $d = .75$; and the GSI, $F(1, 29) = 6.29$, $p < .05$, $d = .88$; with individual-psychotherapy participants improving more than bibliotherapy participants. Interactions were nonsignificant for the HRSD.

Posttreatment to 3-month follow-up. The time-by-treatment interactions were significant from posttreatment to 3-month follow-up for the HRSD, $F(1, 21) = 5.62$, $p < .05$. On the HRSD, the significant interaction was explained by the continued improvement of bibliotherapy participants from posttreatment to 3-month follow-up, $F(1,11) = 6.31$, $p < .05$, $d = 0.84$, whereas the individual-psychotherapy participants showed no change. The nonsignificant time-by-treatment interactions for the GDS and GSI were because of a lack of change from posttreatment to follow-up by participants in both treatments.

Outcome at 4 weeks. Because there were differences in treatment duration, the posttreatment and the follow-up assessments were confounded with time. To determine the effects at equal times, the individual-psychotherapy midtreatment data (after eight therapy sessions, at 4 weeks) and the bibliotherapy posttreatment data (at 4 weeks) were compared in one-way ANOVAs. There were no differences on the GDS or the BSI.

Outcome at 12 to 16 weeks. The posttreatment assessment for individual psychotherapy took place at 12 to 16 weeks after the start of treatment, and the 3-month follow-up for bibliotherapy took place 16 weeks after the start of treatment. Although not precisely the same moment in time, these assessments are comparable within the overall duration of this project. Comparison of the individual-psychotherapy posttreatment data with the bibliotherapy 3-month follow-up data indicated no significant differences on any of the variables.

End-point analysis. Analyses of end-point data with the delayed-treatment participants collapsed into the active treatments indicated no significant differences between the treatments on either of the depression variables. However, participants in both treatments improved from pretreatment to posttreatment on the HRSD, $F(1, 21) = 33.35, p < .05, d = 1.14$ and $F(1, 23) = 16.99, p < .05, d = 1.07$, and on the GDS, $F(1, 21) = 10.97, p < .05, d = 0.72$, and $F(1, 23) = 17.33, p < .05, d = 0.84$, respectively for bibliotherapy and for individual psychotherapy. There were no significant differences between posttreatment and follow-up for either of the treatments.

CLINICAL SIGNIFICANCE OF TREATMENT EFFECTS

An outcome is considered to be clinically significant when the posttreatment scores are more indicative of being in a normal population than in a dysfunctional population and are also different enough from pretreatment scores to be indicative of reliable change (Jacobson & Truax, 1991). For a clinically significant outcome in this study, participants had to achieve at least an 11-point reduction on the HRSD and to no longer meet the selection criteria for the study (i.e., no longer

diagnosed with Major Depressive Episode or have a score of less than 10 on the HRSD). Out of the 31 who completed treatment, 14 (45%) had a clinically significant improvement in their depression. Six of 17 (35%) bibliotherapy completers achieved a clinically significant improvement, whereas 8 of 14 (57%) did so in the individual psychotherapy. Difference between the treatments was nonsignificant. There were no treatment completers whose posttreatment HRSD score was worse than their pretreatment HRSD score.

MANIPULATION CHECKS

Cognitive Bibliotherapy Test. On the Cognitive Bibliotherapy Test, the immediate-treatment bibliotherapy condition was superior to both the immediate-treatment individual psychotherapy condition and to the delayed-treatment control at Time T2, $F(2, 32) = 8.60$, $p < .05$. Combining the delayed-treatment participants with the immediate-treatment participants, the bibliotherapy participants scored higher than did individual-psychotherapy participants at posttreatment, $F(1, 29) = 7.38$, $p < .05$, and at follow-up $F(1, 20) = 7.42$, $p < .05$. The scores of individual-psychotherapy participants did not change significantly from pretreatment to posttreatment or to follow-up.

Homework. Review of homework-compliance data indicated that the participants were engaged in their treatment. The average number of pages read by bibliotherapy participants was 254 pages ($SD = 172$ pages), which is more than half the book. Individual-psychotherapy participants completed an average of 80.19% ($SD = 31.73\%$) of homework assignments.

CTS. The average total CTS score was 37.3 ($SD = 14.16$). CTS scores were not significantly correlated with outcome.

DISCUSSION

Active treatments were both superior to the delayed-treatment control on depression variables at Time T2, as expected, and individual psychotherapy also showed improvements on measures of overall

symptomatology (GSI). When directly comparing the two active treatments, individual psychotherapy was superior to bibliotherapy at posttreatment on the GDS and the GSI, but there were no differences at follow-up because the bibliotherapy participants continued to improve. The posttreatment differences between treatments and the continued improvement by bibliotherapy participants were unexpected.

The observed differences between treatments appear to come from the difference in treatment duration and in assessment times. The treatment phase of individual psychotherapy covered a 3 to 4-month span, compared with only 1 month for bibliotherapy. The midtreatment assessment for individual psychotherapy took place at the same time as the posttreatment assessment for bibliotherapy (4 weeks), and comparisons at 4 weeks showed no differences in depression. This indicates that at the end of 4 weeks, reading *Feeling Good* was equivalent to eight sessions of individual psychotherapy. Therefore, although the individual-psychotherapy posttreatment scores were superior to the bibliotherapy posttreatment scores, this difference can be at least partially explained by an additional eight psychotherapy sessions and by an additional 8 weeks to process the therapy experience. Lack of difference between the treatments at 12 to 16 weeks suggests that bibliotherapy participants benefited significantly from having an additional 3 months to process what they had learned from *Feeling Good*. What remains unknown is when exactly the bibliotherapy participants received the full effect of their treatment. Future studies with unequal-duration treatments should consider assessments that measure the effects of time as well as treatment dosage. Regardless, in terms of the speed and the magnitude of improvement, bibliotherapy participants appear to have had essentially the same response as individual-psychotherapy participants.

A potential explanation for lack of significant differences between treatments is that the quality of therapy may not have been good enough. The average CTS scores seem low but are similar to scores reported during the training phase of the National Institute of Mental Health (NIMH) Treatment of Depression Collaborative Research Program (Vallis et al., 1986). Depression outcome in this study is essentially equivalent to the outcome of other studies using individual psy-

chotherapy for depression in older adults (e.g., Thompson, Gallagher, & Breckinridge, 1987). Thus, even if the quality of therapy was less than ideal, it was effective. Furthermore, master's-level therapists were used in this study, which is consistent with the trend of treatment delivery by master's-level clinicians. This provides some external validity at the possible expense of internal validity.

The Cognitive Bibliotherapy Test yielded some unexpected results. Although the test was designed specifically as a manipulation check for *Feeling Good*, there was an expectation that the test had enough items covering the general principles of cognitive therapy to be suitable for both individual psychotherapy and bibliotherapy. Test results demonstrated that bibliotherapy participants indeed learned the material in *Feeling Good*, which is an important confirmation of the bibliotherapy intervention. However, interpreting the lack of improvement by individual-psychotherapy participants is not possible because the test may not be valid. Additional research with the Cognitive Bibliotherapy Test will be needed to establish validity with a sample that has not read *Feeling Good*.

Rates of clinically significant improvement were just as expected. Approximately 50% of the participants experienced clinically significant improvement, and there were no differences between treatments. Even among participants who did not improve, the treatments do not appear to have been detrimental. This finding agrees with prior research on negative outcomes in self-administered treatments (Scogin et al., 1996).

A potential limitation of this study is the use of a 4-week control condition. That is, had there been a 16-week control interval, evaluation of the effects of individual cognitive therapy would have been stronger. We argue that the longer control interval would have made little difference in the findings. First, a similar control interval (6 weeks) was used in one of the most influential clinical trials for geriatric depression (Thompson et al., 1987). Second, the majority of participants who completed treatment ($n = 31$) were experiencing either chronic depression ($n = 12$), recurrent depression ($n = 7$), or double depression ($n = 2$). Thus, likelihood of significant general improvements as a function of 12 additional weeks is not great. Furthermore, the time course of untreated depression among older adults is believed

to be longer than (Koenig & Blazer, 1992) or similar to that evidenced by younger adults (Dick & Gallagher-Thompson, 1996), and response to treatment is slower (Reynolds et al., 1996). Although many factors influence the time course of depressive episodes, according to *DSM-IV* (APA, 1994) untreated episodes typically last 6 months or longer, regardless of age at onset. Collectively, choice of a 4-week control interval does little to compromise the findings and did much to aid the recruitment and the retention of participants.

A more serious limitation of this study is the relatively small sample size. All of the findings in this study should be interpreted in light of sample size and of statistical power. Using Cohen's (1977) guidelines for classifying effect sizes in social sciences, the sample of 31 treatment completers provided enough power to detect medium-to-large effects but not small effects. A lack of statistical power is not unusual for clinical studies comparing so-called active treatments (Kazdin & Bass, 1989). In this vein, a more accurate statement regarding null findings is that if there were any differences at all between the treatments, the associated effect sizes were relatively small. Similarly, significant differences should be interpreted cautiously.

A final point of discussion is the impact of the weekly telephone calls on bibliotherapy participants. The primary reason for the weekly contact with bibliotherapy participants was to be able to intervene in the event of a significant deterioration. We did not feel comfortable, from an ethical standpoint, with giving a depressed person a self-help book and not having any contact with them for a 4-week period. Granted, in an effectiveness study of *Feeling Good*, there would be no professional contact whatsoever. However, we argue that the amount of professional contact in this study was the absolute minimum necessary to recruit a depressed sample, obtain accurate depression measures, and ethically provide a treatment to an at-risk population. This contact did not compromise the impact of *Feeling Good*. Participants in the delayed treatment condition were also called on a weekly basis during the waiting period, and they showed no change in depression level. Thus, the efficacy of the bibliotherapy intervention is attributable to *Feeling Good*. Future studies should specifically investigate the impact of periodic telephone contact and determine, if possible, the optimal frequency and the amount of contact.

In summary, this study indicates that bibliotherapy is an effective treatment for depression in older adults. The data also suggest that bibliotherapy was comparable to individual psychotherapy. This is impressive considering the advantages bibliotherapy has in cost, time, convenience, and flexibility. To illustrate, the cost of the book was less than $10, whereas 16 sessions of psychotherapy could exceed $1,000. Further, issues of illness, convenience, and time were the most frequently offered reasons for dropout. Results of this study suggest that bibliotherapy can be recommended, particularly for depressed individuals who are unlikely to seek or participate in psychotherapy. The effectiveness of both treatments underscores the consistent finding in the literature that geriatric depression is treatable and that older adults respond well to psychosocial treatments.

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