

THERAPIST VARIABLES THAT PREDICT SYMPTOM CHANGE IN PSYCHOTHERAPY WITH CHRONICALLY DEPRESSED OUTPATIENTS

CARINA VOCISANO

Southern Connecticut State University

BRUCE ARNOW

Stanford University

JANICE A. BLALOCK

University of Texas

DINA VIVIAN

State University of New York at Stony Brook

RACHEL MANBER

Stanford University

A. JOHN RUSH

*University of Texas Southwestern
Medical Center*

JAMES P. MCCULLOUGH AND
SUSAN G. KORNSTEIN

Virginia Commonwealth University

DANIEL N. KLEIN

State University of New York at Stony Brook

CARIDAD RIVERA

Southern Connecticut State University

BARBARA ROTHBAUM

Emory University School of Medicine

JOHN C. MARKOWITZ AND
JAMES H. KOCSIS

Cornell University Medical Center

LOUIS CASTONGUAY

Pennsylvania State University

FRANCES E. BORIAN

Bristol-Myers Squibb

LAWRENCE P. RISO

Georgia State University

MICHAEL E. THASE

University of Pittsburgh Medical Center

Carina Vocisano and Caridad Rivera, Psychology Department, Southern Connecticut State University; Daniel N. Klein, Departments of Psychology and Psychiatry and Behavioral Sciences, State University of New York at Stony Brook; Bruce Arnow and Rachel Manber, Department of Psychiatry and Behavioral Sciences, Stanford University; Janice A. Blalock, M. D. Anderson Cancer Center, University of Texas; Barbara Rothbaum, Department of Psychiatry, Emory University School of Medicine; Dina Vivian, Department of Psychology, State University of New York at Stony Brook; John C. Markowitz and James H. Kocsis, Department of Psychiatry, Cornell University Medical Center; Louis Castonguay,

Department of Psychology, Pennsylvania State University; A. John Rush, Department of Psychiatry, University of Texas Southwestern Medical Center; Frances E. Borian, Bristol-Myers Squibb, Princeton, New Jersey; James P. McCullough and Susan G. Kornstein, Department of Psychology, Virginia Commonwealth University; Lawrence P. Riso, Department of Psychology, Georgia State University; Michael E. Thase, Adult Academic Psychiatry, University of Pittsburgh Medical Center.

Correspondence concerning this article should be addressed to Carina Vocisano, Southern Connecticut State University, 501 Crescent Street, New Haven, CT 06515-1355. E-mail: vocisanoc2@southernct.edu

The present study examines the contribution of psychotherapist variables to change in depressive symptoms in a large clinical trial comparing the efficacy of the cognitive-behavioral analysis system of psychotherapy, the antidepressant nefazodone, and the combination of both in the treatment of chronic depression. Greater change on the Hamilton Rating Scale for Depression (HRSD) was associated with greater emphasis on the therapeutic relationship, lower overall psychotherapy caseload, therapist psychodynamic orientation, and supervisory status. There was no relationship between HRSD change and therapist sex, age, or years of experience.

Over the past decade, there has been considerable concern among psychotherapy researchers over the neglect of therapist variables in psychotherapy research (Beutler, 1997). The largest and most influential psychotherapy outcome studies have focused primarily on technique efficacy (Bergin, 1997), despite the fact that therapy outcome is more closely related to therapist characteristics than to type of treatment (Lambert & Okiishi, 1997; Luborsky et al., 1986). The large-scale and influential studies that have given therapist characteristics some attention confirm that therapists vary substantially in their success even when they are working with patients who are all being treated for the same disorder with the same form of carefully monitored, manualized treatment (Blatt, Sanislow, Zuroff, & Pilkonis, 1996; Huppert et al., 2001).

Huppert and colleagues (2001) conducted a study of therapist characteristics and treatment outcome based on data from the Multicenter Collaborative Study for the Treatment of Panic Disorder. In the conclusion of their study, Huppert and colleagues (2001) pointed out that an ideal study of therapist effects on therapy outcome would include all patients who are receiving psychotherapy alone (as opposed to some patients who are receiving psychotherapy and medica-

tions), a large number of clinicians, and a sufficient number of patients per therapist. The present study evidences all of these characteristics. We examine the relationship of a number of important psychotherapist variables to therapy outcome in a large sample of outpatients with chronic depression who completed the psychotherapy alone condition of a multisite clinical trial.

Our research looks at the traditional therapist variables that have been included in most studies concerned with the impact of therapist variables on patient outcome, such as sex, age, and professional experience. The present study also contributes to the literature on these variables by providing information derived from a large patient sample, a large therapist sample, and a rigorous research design. The present study also evaluates the impact of several important therapist variables that have never been researched, such as overall patient caseload across all settings, global intervention strategy, and supervisory status.

Bowman, Scogin, Floyd, and McKendree-Smith (2001) used meta-analysis to summarize 58 studies on the relationship of therapist sex to treatment outcome and found a statistically significant but small advantage for female therapists. They found no differences in outcome associated with patient sex.

Therapy researchers have given little attention to therapist age because it is confounded by therapist experience and cohort effects that reflect changes in training and standards of practice. Beck (1988), however, suggested that therapists who are more than 10 years younger than their clients obtained poorer outcomes than older therapists or those of similar age to their clients.

Ethnic similarity between therapists and clients has been shown to predict therapy outcome in a few studies (Hosch et al., 1995; Ricker, Nystul, & Waldo, 1999; Sue, Fujino, Hu, Takeuchi, & Zane, 1991). The large-scale clinical trials that examined the relationship between therapist characteristics and treatment outcome have not included information on therapist ethnicity (Blatt et al., 1996; Huppert et al., 2001), although the latter study did report that their study patients were predominantly Caucasian. In the present study, the vast majority of both therapists and clients described themselves as Caucasian, so we had too few ethnic minority group members to conduct a meaningful analysis of the relation between therapist ethnicity and patient outcome. Future

clinical trials should seek to ensure an adequate representation of therapists and clients who are members of minority groups.

A similar situation occurred with respect to professional discipline; there was not enough variability in our clinician sample to discern whether discipline related to therapy outcome (almost all of the therapists were psychologists). The results of the only meta-analysis on this variable (Smith, Glass, & Miller, 1980) found a slight patient outcome advantage when therapy was conducted by a psychologist rather than a psychiatrist. A *Consumer Reports* (1995) study on client-rated self-improvement showed no differences between these two groups and showed greater improvement in clients seen by social workers.

The relationship between level of professional experience and treatment outcome has been reviewed in several meta-analyses with mixed conclusions (Christensen & Jacobson, 1994; Stein & Lambert, 1995). Some of the difficulties in understanding the relationship of professional experience to therapy outcome are due to the varied and problematic ways that this variable has been operationally defined (Beutler, 1997). In keeping with Beutler's recommendation regarding the measurement of therapist experience, we asked about the number of years during which therapists conducted individual psychotherapy rather than the amount of time that had passed since they assumed the professional role.

There is a plethora of research that attempts to discern the relation between specific interventions and patient change through observation and ratings of therapist in-session behavior. We were interested in knowing whether therapists' own perceptions of the degree of emphasis they place on specific interventions related to treatment outcome. Thus, we asked therapists to report on the relative emphasis they placed on a variety of interventions (global intervention strategy) to see whether intervention emphasis was related to therapy outcome.

The influence of clinicians' overall caseload on patient care is frequently discussed in the literature on professional burnout but has never been studied in direct relation to patient outcome. Burnout is a syndrome of emotional exhaustion and cynicism that frequently occurs as a result of "constant or repeated emotional pressure associated with an intense involvement with people over long periods of time" (Pines, Aronson, &

Kafry, 1981, p.15). Burnout involves a loss of concern and positive feeling for one's clients and a decline in the quality of service that the clients receive (Edelwich & Brodsky, 1980). Given the theoretical literature on professional burnout, we were very curious about whether clinicians with high caseloads across all of their work settings had clients within the study who evidenced less change.

We have also included two variables whose influence may be unique within the context of controlled clinical trials: therapists' self-identified primary theoretical orientation and supervisory status. It seems reasonable to assume that therapists' primary theoretical orientation exerts some influence on how manualized therapy is interpreted and delivered in controlled clinical trials. For example, a therapist whose primary theoretical orientation is psychodynamic may apply manualized cognitive-behavioral therapy (CBT) differently than one whose primary theoretical orientation is cognitive-behavioral. Therapists' self-identified primary orientation has rarely been considered when the outcomes of different forms of manualized psychotherapy are compared with one another and/or with medications. Huppert and his colleagues (2001) did examine the relationship of theoretical orientation to outcome and found none, but their study included only 14 therapists who could identify themselves as cognitive-behavioral therapists or "other." In controlled clinical trials, clinicians who supervise often serve as study therapists as well. Despite this, the possible relationship between therapists' supervisory status and treatment outcome has not been considered in past trials.

Method

Study Design

The present study is based on data from a larger study comparing the efficacy of the cognitive-behavioral analysis system of psychotherapy (CBASP; McCullough, 2000), the antidepressant nefazodone, and combination treatment in the 12-week acute phase in a multisite clinical trial for treatment of chronic depression (Keller et al., 2000). The methods employed in this multisite clinical trial are described in detail by Keller and his colleagues (2000); hence, only a brief summary is provided here. A total of 681 patients at

12 academic centers were randomized to 12 weeks of treatment with CBASP alone, nefazodone alone, or the combination of both treatments. In that study, 52% of patients who completed psychotherapy alone, 55% of patients who completed nefazodone alone, and 85% of patients who completed combination treatment responded to treatment (Keller et al., 2000). Thus, the two monotherapies had equivalent efficacy, and combination treatment produced significantly better outcomes than did either treatment alone. The present report is based on a sample of 173 patients who completed psychotherapy alone with 12 weeks of acute treatment.

All patients, therapists, and supervisors provided written informed consent. The psychotherapists attended a 2-day training workshop and met the criteria for mastery of treatment procedures entailed in CBASP, as assessed by evaluation of their performance during two videotaped pilot cases. During the study, all psychotherapy sessions were videotaped, and supervisors reviewed a sample of the videotapes weekly to discuss the therapeutic exchange and to assess the psychotherapists' adherence to CBASP. Supervision was conducted in group and/or individual formats. Most therapists received at least one weekly group supervision (69.2%), but a significant minority also received supervision individually (23.1%). Only 2 therapists received individual supervision without group supervision (7.7%).

CBASP

CBASP was designed by James McCullough (2000) to motivate and help chronically depressed patients to develop more effective social problem-solving and relationship skills. Situational analysis is the primary tool for helping patients to change their patterns of coping, improve their interpersonal skills, understand the consequences of their behavior, interact more effectively with others, and expand their social support network. During situational analysis, the client focuses on one recent interpersonal situation that is distressing and deconstructs the components of the situation with the therapist. Situational analysis has three phases: elicitation, remediation, and generalization. In the elicitation phase, the patient describes (a) the interpersonal event, (b) his or her behavior, (c) his or her interpretations of what occurred, (d) the outcome of

the event (actual outcome), (e) what he or she would have liked the outcome to be (desired outcome), and (f) why he or she did or did not achieve the desired outcome. In the remediation phase, the client's interpretations and behaviors during the event are analyzed and hypothetically revised in terms of what would have been more likely to bring about the patient's desired outcome. In this manner, the patient is assisted in examining the consequences of his or her thoughts and behavior and in constructing alternative ways of thinking and behaving that would have led to more effective social problem solving. Generalization involves a review of what has been learned in the preceding analysis and an exploration of the ways the patient's new understanding and skills may be applied to similar situations in the future. CBASP also provides a framework for therapists to use the patient-therapist relationship as a vehicle for improving problem-solving skills in the interpersonal domain. During the second session of CBASP, a history of the client's relationships with significant others is elicited. This information is used to identify and address patterns of negative interpersonal expectations that may be enacted in the therapeutic relationship and in the patient's life.

The psychotherapists followed a manual (McCullough, 1995) and a study protocol specifying twice-weekly sessions during Weeks 1 through 4 and weekly sessions during Weeks 5 through 12. Twice-weekly sessions could be extended until Week 8 if a patient was not adequately performing the social problem-solving procedure according to the criteria. Psychotherapy was extended to Week 14 if the patient's treatment response was equivocal. All psychotherapy sessions were videotaped, and a sample was reviewed weekly by supervisors.

Participants

Participants in the present study included three distinct groups: (a) patients who underwent treatment as part of the chronic depression treatment study, (b) psychotherapists who conducted the psychotherapy with these patients and, (c) psychotherapy supervisors, all of whom also served as psychotherapists in the study.

Patient participants. Patients were recruited at 12 academic sites between June 1996 and December 1997. They fulfilled criteria for one of three forms of chronic depression: (a) current ma-

major depressive episode of at least 2 years' duration, (b) current major depressive episode superimposed on a preexisting dysthymic disorder (double depression), (c) recurrent major depressive disorder with incomplete remission between episodes, a current major depressive episode, and a continuous illness of at least 2 years. Diagnoses were derived using the Structured Clinical Interview for Axis I *DSM-IV* (American Psychiatric Association, 1994) Disorders (SCID-I/P; First, Spitzer, Gibbon, & Williams, 1995).

To be eligible for the study, the patients had to be between the ages of 18 and 75 years and to have a score of at least 20 on the 24-item Hamilton Rating Scale for Depression (HRSD; Hamilton, 1967) at screening and after a 2-week drug-free baseline period. The exclusion criteria included presence of neurological disorders, a serious medical condition, or a history of psychosis, mania/hypomania, or substance-related disorders. Patients unresponsive to several previous adequate trials of antidepressant medication and empirically supported forms of psychotherapy for depression were also excluded (for a detailed description of study exclusion criteria, see Keller et al., 2000).

To avoid the confounding effects of antidepressant medications on patient outcomes, in the present analyses we included only patients receiving psychotherapy without medications. Data for the study were available for all of the patients who received psychotherapy alone and completed the 12-week acute phase ($N = 173$). Supervisors were included in the analyses as therapists, except where noted.

The majority of the 173 patients were female (63%) and Caucasian (90.8%). Their average age was 43.9 years ($SD = 10.6$). Almost half of the patients were married (36.4%) or cohabiting (6.9%), approximately one third (31.8%) were single, and about a quarter were divorced (19.1%), separated (4.6%), or widowed (1.2%).

The distribution of chronic depressive disorders in this sample ($N = 173$) was chronic major depression (35.3%), recurrent major depression with incomplete recovery (23.7%), double depression (23.1%), and chronic major depression superimposed on dysthymia (17.9%). The average baseline HRSD score was 26.5 ($SD = 4.9$), and the Global Assessment of Functioning Scale (Axis V in the *DSM-IV*) scores averaged 53.8 ($SD = 5.6$). The average age of onset of major depressive disorder was 27.4 years ($SD = 13.1$),

and the mean duration of the current major depressive episode was 8.5 years ($SD = 10.7$). The average age of onset of dysthymic disorder was 20.5 years ($SD = 15.0$), with a mean duration of 21.9 years ($SD = 15.0$). Most patients had been in psychotherapy (63.0%) or had been treated with antidepressants (58.4%) prior to participating in the study.

Therapist and supervisor participants. A detailed description of therapist demographic and professional characteristics are presented in the Results section and in Table 1. All of the 40 psychotherapists and 12 psychotherapy supervisors involved in the treatment study were invited to participate in this study. Three therapists and 1 supervisor conducted therapy with patients in combination treatment but did not conduct therapy with any patients in psychotherapy alone. We did not include these therapists and supervisors in the data analyses. Thus, we have data on 37 therapists and 11 supervisors. Two supervisors and 2 therapists had incomplete data and are not included in some analyses. Psychotherapy supervisors conducted psychotherapy with study patients and were included as psychotherapists in the analyses where appropriate. Study therapists were required to have had at least 2 years experience after earning an MD or PhD or at least 5 years of experience after earning an MSW. All psychotherapists had a PhD in psychology, except for 3 clinicians who had an MSW and 1 who had an MD with a specialty in psychiatry.

Study supervisors were required to have had at least 7 years postdoctoral or postmedical degree or 10 years post-MSW experience and a cognitive-behavioral theoretical orientation. All supervisors had a PhD in psychology, except for 1 who had an MSW.

Measures

Diagnoses were derived using a modified version of the Structured Clinical Interview for the *DSM-IV* (SCID I/P; First, Spitzer, Gibbon, & Williams, 1995) for Axis I disorders and an abbreviated version of the SCID-II (First, Gibbon, Spitzer, Williams, & Benjamin, 1997) for Axis II disorders during the screening evaluation. A physical examination, routine laboratory tests, and urine toxicology screen were also performed at this time.

Our primary outcome measure was the 24-item HRSD, which was administered at screening, baseline, and Weeks 1, 2, 3, 4, 6, 8, 10, and 12 by

TABLE 1. Therapist Sex, Age, Experience, Clinical Caseload in the CBASP Study, and Clinical Caseload Across All Settings

Variable	Therapists (<i>n</i> = 37)	Supervisors (<i>n</i> = 11)	All therapists (<i>n</i> = 48)	Correlations with change in HRSD scores
Female (%)	25 (67.6%)	5 (45.5%)	30 (62.5%) ^a	
Age				
<i>M</i>	44.0	49.4	45.1	<i>r</i> = .03
<i>SD</i>	8.1	10.1	8.7	
Years of experience as psychotherapist				
<i>M</i>	15.3	20.7	16.4	<i>r</i> = -.11
<i>SD</i>	7.8	9.9	8.4	
Caseload in the CBASP study ^b				
<i>M</i>	3.8	1.5	3.4	<i>r</i> = .05
<i>SD</i>	2.3	0.5	2.4	
Caseload across all settings ^c				
<i>M</i>	21.9	16.2	20.4	<i>r</i> = -.47*
<i>SD</i>	12.4	6.9	11.8	

Note. CBASP = cognitive behavioral analysis system of psychotherapy; HRSD = Hamilton Rating Scale for Depression.
^aThere were no differences in mean HRSD change scores between patients of female therapists (*M* = 10.19, *SD* = 6.0) versus male therapists (*M* = 12.85, *SD* = 5.5). ^bNumber of hours per week conducting therapy in the CBASP study. ^cNumber of hours per week conducting therapy across all settings.
 **p* < .002.

raters who were unaware of patients' treatment conditions. SCID and HRSD raters completed a 2-day training workshop on these instruments. In addition, all HRSD raters were certified by external experts who evaluated a videotape of the rater's HRSD assessment with a depressed patient. The HRSD interviewers were blind to group assignment and were certified to have a high level of interrater reliability and procedural integrity.

We also developed a supplementary self-report questionnaire completed by therapists and supervisors that included quantitative and qualitative questions to assess professional training and practice experiences, total clinical caseload, research caseload, primary theoretical orientations, and intervention emphasis. We sought to develop a self-report questionnaire that would (a) include the main therapist variables that have been examined in the therapy outcome literature, (b) take into account criticisms of how these variables have been measured in previous studies, and (c) include some new and important variables.

In keeping with Beutler's (1997) recommendation regarding the measurement of therapy experience, we asked therapists about the number of years during which they conducted individual psychotherapy rather than the amount of time that had passed since they assumed the professional role. Previous therapy outcome studies had not examined total caseload. We therefore asked therapists about the average number of hours per

week that they devoted to conducting psychotherapy across all work settings. We also asked them to describe their primary theoretical orientation in recognition of the fact that most clinicians use more than one therapy approach. Although past research has examined therapists' observed use of specific intervention strategies during psychotherapy sessions, we were interested in therapists' subjective perspective on their relative intervention emphasis. Thus, the intervention strategy items required therapists to report on the relative degree to which they emphasized each of five listed interventions across all patients in their research caseload: remediation of interpretations, remediation of behavior, modification of situational outcomes, examination of the relationship between patients' social histories and their current behavior, and discussions of the patient-therapist relationship. Therapists rated the percentage of emphasis they placed on each of these five interventions, such that the total added up to 100%.

Data Analysis

The main dependent variable was the mean of the change scores from baseline to end of the acute phase on the HRSD for all patients treated by each therapist. On average, therapists worked with 3 study patients at a time (*M* = 3.2, *SD* = 2.3), but a couple of therapists had much higher caseloads (range = 0-12). Thus, the mean of the

HRSD change scores for all of the patients seen by each therapist within the study was the main dependent measure. Although the use of raw change scores has been criticized in the past, more recent work has demonstrated that these criticisms were often overstated and that the use of residual change scores is often equally problematic (Rogosa, 1995; Willet, 1988).

We performed Pearson product-moment correlations to analyze the relationship between continuous therapist variables and patient outcome. We used univariate and multivariate analyses of variance to discern possible group differences between CBT supervisors, CBT-oriented therapists, and psychodynamic therapists, and we performed post hoc Tukey honestly significant difference (HSD) analyses where appropriate. We conducted a simultaneous multiple regression analysis to examine the independent contributions of supervisory status/therapeutic orientation, psychotherapy caseload, and intervention strategy to predicting patient outcome.

Results

In the first section, we present data on the relationship of several key therapist variables to patient change, including therapist age, sex, number of years of experience practicing individual psychotherapy, clinical caseload in the research study, and clinical caseload across all settings. We also present data on the relationship between self-identified primary theoretical orientation and supervisory status to outcome. Finally, we present our findings on the relationship between therapist global self-report about the use of intervention strategies and patient outcome.

The Relationship of Therapist Variables to Patient Outcome

Data on therapist sex, age, experience, caseload, and primary therapeutic orientation are pre-

sented in Tables 1 and 2. There were no differences in mean HRSD change scores between patients of female ($M = 10.19$, $SD = 6.0$) versus male therapists ($M = 12.85$, $SD = 5.5$). We could not meaningfully address how patient and therapist ethnicity or therapist discipline and patient change relate because the vast majority of therapists were psychologists who described themselves as Caucasian. Therapist age, the number of years that a therapist had devoted to conducting psychotherapy (including training), and the number of hours per week therapists spent working with study patients were not correlated with change in depression scores ($r = -.03$, $p < .87$; $r = -.11$, $p < .51$; $r = .05$, $p < .73$, respectively). The average number of hours per week that psychotherapists and supervisors devoted to psychotherapy across all settings, however, was negatively correlated with patient change ($r = -.47$, $p < .002$).

As all supervisors had a cognitive-behavioral orientation, primary theoretical orientation and supervisory status were combined to create a three-level dummy variable: cognitive-behavioral supervisor, cognitive-behavioral therapist, and psychodynamic therapist. Therapists with other theoretical orientations were excluded from these analyses ($n = 5$, 13.5%). A univariate analysis of variance yielded significant differences between the cognitive-behavioral supervisors, the psychodynamic psychotherapists, and the cognitive-behaviorally oriented therapists on average HRSD change scores, $F(2, 38) = 5.57$, $p < .001$. A post hoc Tukey HSD analysis showed a significant reduction in depression scores for patients of therapy supervisors and psychodynamic therapists when compared with patients of the cognitive-behavioral psychotherapists. There were no differences in change scores between patients whose therapists were supervisors versus patients whose therapists identified

TABLE 2. Change in Hamilton Rating Scale for Depression (HRSD) Scores According to Supervisory Status and Self-Identified Therapeutic Orientation

Change in HRSD-24	Cognitive behavioral therapists (excluding supervisors) ($n = 20$)	Psychodynamic therapists ($n = 10$)	Cognitive behavioral supervisors ^a ($n = 11$)
<i>M</i>	9.3	14.1 ^b	15.0 ^c
<i>SD</i>	4.7	7.0	4.5

^aAll of the supervisors were cognitive-behaviorally trained (CBT) because only CBT clinicians were selected to become study supervisors. ^bTukey honestly significant difference, psychodynamic versus CBT therapists, $p < .05$. ^cTukey honestly significant difference, supervisors versus CBT therapists, $p < .01$.

their primary orientation as psychodynamic (Table 2).

A multivariate analysis of variance yielded significant differences among the three therapist groups (CBT therapists, psychodynamic therapists, and supervisors) on global intervention strategy, Wilks's $\lambda(10, 62) = .493, p = .001$. Follow-up univariate analyses of variance revealed significant differences among the three therapist groups in emphasis on remediation of interpretations, $F(2, 38) = 3.29, p < .05$, and discussions of the patient–therapist relationship, $F(2, 38) = 8.33, p < .001$. Tukey HSD post hoc tests showed that the supervisors placed significantly less emphasis on cognitive interventions and greater emphasis on discussing the patient–therapist relationship as compared with CBT therapists and that psychodynamic therapists also placed greater emphasis on the therapist–patient relationship than did CBT therapists. In addition, psychodynamic therapists placed significantly greater emphasis on cognitive interventions than did supervisors. (See Table 3.)

We also examined the relationship between intervention emphasis and symptom change. A greater emphasis by therapists (including those who supervised) on the relationship between therapist and client was correlated with greater change in psychotherapy (Table 3).

We conducted a simultaneous multiple regression analysis to examine the independent contributions of supervisory status/therapeutic orientation (CBT supervisors, CBT therapists, psychodynamic therapists), overall psychotherapy caseload, and intervention strategy (emphasis on patient–therapist relationship) to predicting patient outcome. The multiple correlation between patient outcome and the three predictor variables was $.61, F(3, 35) = 6.87, p < .001$. The only unique predictor of change was emphasis on the patient–therapist relationship ($B = .37, R^2 = .25, p < .02$). Supervisor status/theoretical orientation and overall psychotherapy caseload did not make independent contributions to outcome. None of the three predictor variables (supervisory status/therapeutic orientation, overall psycho-

TABLE 3. Therapist Global Intervention Strategy

Self-report of global intervention strategy	Correlations with change in HRSD-24	CB therapists (no supervisors) (n = 20)	Psychodynamic therapists (n = 10)	CB supervisors (n = 9)
Emphasis on cognitive interventions				
<i>R</i>	-.25			
<i>p</i>	.11			
<i>M%</i>		30.2 ^a	29.6	21.1
<i>SD</i>		10.7	8.0	4.9
Emphasis on behavioral interventions				
<i>R</i>	-.30			
<i>p</i>	.06			
<i>M%</i>		23.0	16.4	19.4
<i>SD</i>		9.6	10.3	8.1
Emphasis on desired outcomes				
<i>R</i>	.09			
<i>p</i>	.55			
<i>M%</i>		21.2	19.4	21.1
<i>SD</i>		5.9	4.6	4.2
Emphasis on patient–therapist relationship				
<i>R</i>	.48			
<i>p</i>	.001			
<i>M%</i>		11.1 ^b	22.0 ^c	18.1
<i>SD</i>		6.8	9.4	5.8
Relative emphasis on learning history				
<i>R</i>	.03			
<i>p</i>	.85			
<i>M%</i>		15.0	12.8	16.9
<i>SD</i>		5.6	5.7	6.4

Note. HRSD = Hamilton Rating Scale for Depression; CB = cognitive-behavioral.

^aTukey honestly significant difference (HSD), cognitive-behaviorally trained (CBT) therapists versus supervisors, $p < .05$. ^bTukey HSD, CBT therapists versus supervisors, $p < .05$. ^cTukey HSD, psychodynamic therapists versus CBT therapists, $p < .001$.

therapy caseload across all settings, and emphasis on the therapeutic relationship) were correlated with baseline HRSD scores ($r = .06, p < .74$; $r = .00, p < .98$; $r = .06, p < .72$, respectively).

We also conducted a series of analyses to address the possibility that the variability in the number of cases that each therapist treated could influence the findings. We performed Spearman rank order correlations to ascertain whether the key independent variables (supervisory status/therapeutic orientation, overall caseload across settings, and emphasis on the patient–therapist relationship) were correlated with the total number of study patients treated by each therapist and with the average within-study caseload. None of the key independent variables were correlated with the total number of patients treated by each therapist or the average within-study caseload.

Discussion

The single best predictor of psychotherapy outcome in this study was the overall degree of emphasis therapists placed on discussing the patient–therapist relationship. The overall emphasis therapists report placing on remediation of cognitions, behaviors, and desired outcomes and on examination of patient social learning history was not associated with symptom reduction. Symptom change was negatively correlated with the total number of hours therapists spent conducting psychotherapy across all settings, but it was not related to therapist sex, age, experience, or caseload within the study.

Supervisory status and self-identified primary orientation were also related to symptom change; patients of cognitive–behavioral psychotherapy supervisors and therapists who identified their primary orientation as psychodynamic evidenced significantly greater change on the HRSD as compared with patients of cognitive–behavioral psychotherapists.

The predictive value of the degree of emphasis therapists placed on the therapeutic relationship is congruent with past research (Safran & Wallner, 1991) highlighting discussions of the therapist–client relationship as a key component of change in CBT. Our findings are also consistent with past research showing that interventions targeting interpersonal domains in cognitive therapy for depression are associated with improvement (Hayes, Castonguay, & Goldfried, 1996; Jones & Pulos, 1993).

The results of the present study suggest that the best psychotherapy outcomes, at least for chronically depressed patients, are facilitated by therapists who use a sophisticated blend of cognitive–behavioral and interpersonal/psychodynamic approaches. A number of findings support this perspective. First, the CBASP method, although it emphasizes cognitive–behavioral interventions, is composed of a blend of therapeutic approaches and has previously been demonstrated to be efficacious in treating chronic depression (Keller et al., 2000). Second, supervisors whose primary orientation was cognitive–behavioral yielded outcomes that were equivalent with those of psychodynamic therapists, and both groups reported using the most blended intervention strategies. Finally, cognitive–behavioral therapists who did not supervise reported using the least integrated form of treatment and yielded outcomes that were significantly poorer than those achieved by psychodynamic therapists and cognitive–behavioral supervisors. Our findings agree with those of Goldfried, Raue, and Castonguay (1998). In their study, the portions of sessions that master therapists judged as clinically significant reflected a blending of both psychodynamic and cognitive–behavioral orientations, regardless of the primary orientation of the therapist.

In interpreting these results, it is important to consider that although the supervisors were somewhat more experienced than psychotherapists who did not supervise, the number of years that a clinician had practiced individual psychotherapy was not related to patient outcome. The superior performance of the clinical supervisors (relative to the CBT supervisees) cannot, therefore, be attributed to greater experience in conducting individual psychotherapy.

One possible explanation for the lack of association between therapist experience and patient outcome concerns the relevance of past experience in this study. Experience may not have been related to patient outcome because CBASP was new to almost all therapists and supervisors. The relationship between therapist experience and therapy outcome may have also been limited by the fact that all therapists were quite experienced, having practiced psychotherapy for an average of more than 16 years.

We found that the number of hours therapists spent treating chronically depressed patients in the research study was not related to patient outcome—a finding congruent with the results of the

Treatment of Depression Collaborative Research Program (Elkin, 1999). However, the inverse relationship between the total number of hours clinicians devoted to psychotherapy across all settings and patient outcome suggests that too many concentrated hours of psychotherapy may tax therapists and negatively impact patients as well. Although there has been ample concern in the field about therapist burnout, we were surprised to find no previous research on the relationship between overall psychotherapy caseload and patient outcome. More research on this issue is needed, as it has critical public health implications.

Given the small number of therapists, especially in the supervisor and psychodynamic groups, there was a moderate risk of Type II error, and it is likely that results could be detected only if the effect sizes were relatively large. We did not, therefore, apply a correction for the numbers of analyses that we ran, and this increased the risk of Type I error. In addition, some data were missing from some therapists and supervisors on some variables. For the above reasons, the results of this study should be considered preliminary. Another limitation of this study concerns the fact that the therapist and supervisor data were collected on a one-time basis, when the acute phase of the project was nearly complete. Thus, the therapists and supervisors provided retrospective self-reports, and the results of the study need to be interpreted in this context. Although self-report offers a distinct and meaningful perspective on the therapeutic relationship, it does not necessarily correlate with in-session behavior (Carroll, Nich, & Rounsaville, 1998). In addition, some measures were developed solely for this study and have unknown psychometric properties. Finally, the results of this study may not generalize to nonacademic settings or to other patient populations.

The present study has several strengths. Overall, a larger number of patients, therapists, and supervisors participated in this investigation, as compared with past studies on the relationship of therapist characteristics to therapy outcome. Consequently, few psychotherapy studies have had comparable statistical power. In addition, we assessed the multiple perspectives of independent evaluators, patients, therapists, and supervisors. This decreased the influence of demand characteristics for evidence of improvement and the possible impact of biases about treatments or clinicians.

If replicated, the results of this study have important implications for the organization and delivery of psychotherapy services. An integrated approach with ample discussion of the therapeutic relationship and a limit on the total number of hours psychotherapists spend conducting therapy are important ingredients of treatment that substantially reduce symptoms of depression.

References

- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- BECK, D. F. (1988). *Counselor characteristics: How they affect outcomes*. Milwaukee, WI: Family Service of America.
- BERGIN, A. (1997). Neglect of the therapist and the human dimensions of change: A commentary. *Clinical Psychology: Science and Practice*, 4, 83–89.
- BEUTLER, L. E. (1997). The psychotherapist as a neglected variable in psychotherapy: An illustration by reference to the role of therapist experience and training. *Clinical Psychology: Science and Practice*, 4, 44–52.
- BLATT, S. J., SANISLOW, C. A., ZUROFF, D., & PILKONIS, P. (1996). Characteristics of the effective therapist: Further analysis of the data from the NIMH TDCRP. *Journal of Consulting and Clinical Psychology*, 64, 1276–1284.
- BOWMAN, D. G., SCOGIN, F., FLOYD, M., & MCKENDREE-SMITH, N. (2001). Effect of therapist sex on outcome of psychotherapy: A meta-analysis. *Psychotherapy*, 38, 142–148.
- CARROLL, K. M., NICH, C., & ROUNSAVILLE, B. J. (1998). Utility of therapist checklists to monitor delivery of coping skills treatment for cocaine abusers. *Psychotherapy Research*, 8, 307–320.
- CHRISTENSEN, A., & JACOBSON, N. D. (1994). Who (or what) can do psychotherapy: The status and challenge of nonprofessional therapies. *Psychological Science*, 5, 8–14.
- Consumer Reports. (1995, November). *Mental health: Does therapy help?* pp. 734–739.
- EDELWICH, J., & BRODSKY, A. (1980). *Burn-out: Stages of disillusionment in the helping professions*. New York: Human Sciences Press.
- ELKIN, I. (1999). A major dilemma in psychotherapy outcome research: Disentangling therapists from therapies. *Clinical Psychology: Science and Practice*, 6, 10–32.
- FIRST, M. B., GIBBON, M., SPITZER, R. L., WILLIAMS, J. B. W., & BENJAMIN, L. S. (1997). *Structured Clinical Interview for DSM-IV Axis II Disorders (SCID-II)*. Washington, DC: American Psychiatric Press.
- FIRST, M. B., SPITZER, R. L., GIBBON, M., & WILLIAMS, J. B. W. (1995). *Structured Clinical Interview for DSM-IV Axis I Disorders—Patient Edition (SCID-I/P, Version 2.0)*. New York: Biometrics Research Department, New York State Psychiatric Institute.
- GOLDFRIED, M. R., RAUE, P. J., & CASTONGUAY, L. G. (1998). The therapeutic focus in significant sessions of master therapists: A comparison of cognitive-behavioral and psychodynamic-interpersonal interventions. *Journal of Consulting and Clinical Psychology*, 66, 803–810.
- HAMILTON, M. (1967). Development of a rating scale for pri-

- mary depressive illness. *British Journal of Social and Clinical Psychology*, 6, 278–296.
- HAYES, A. M., CASTONGUAY, L. G., & GOLDFRIED, M. R. (1996). Effectiveness of targeting the vulnerability factors of depression in cognitive therapy. *Journal of Consulting and Clinical Psychology*, 64, 623–627.
- HOSCH, H. M., BARRIENTOS, G. A., FIERRO, C., RAMIREZ, J. I., PELAEZ, M. P., CEDILLOS, M. A., ET AL. (1995). Predicting adherence to medications by Hispanics with schizophrenia. *Hispanic Journal of Behavioral Sciences*, 17, 320–333.
- HUPPERT, J., BUFKA, L. F., BARLOW, D. H., GORMAN, J. M., SHEAR, M. K., & WOODS, S. W. (2001). Therapists, therapist variables, and cognitive-behavioral therapy outcome in a multicenter trial for panic disorder. *Journal of Consulting and Clinical Psychology*, 69, 747–755.
- JONES, E. E., & PULOS, S. M. (1993). Comparing the process of psychodynamic and cognitive-behavioral therapies. *Journal of Consulting and Clinical Psychology*, 61, 306–316.
- KELLER, M. B., MCCULLOUGH, J. P., KLEIN, D. N., ARNOW, B., DUNNER, D. L., GELENBERG, A. J., ET AL. (2000). A comparison of Nefazodone, the cognitive behavioral-analysis system of psychotherapy, and their combination for the treatment of chronic depression. *New England Journal of Medicine*, 342, 1462–1470.
- LAMBERT, M., & OKIISHI, J. C. (1997). The effects of the individual psychotherapist and implications for future research. *Clinical Psychology: Science and Practice*, 4, 66–75.
- LUBORSKY, L., CRITS-CRISTOPH, P., McLELLAN, T., WOODY, G., PIPER, W., LIVERMAN, B., ET AL. (1986). Do therapists vary much in their success? Findings from four outcome studies. *American Journal of Orthopsychiatry*, 56, 501–512.
- MCCULLOUGH, J. P. (1995). *Therapist manual for cognitive behavioral analysis system of psychotherapy*. Richmond: Virginia Commonwealth University.
- MCCULLOUGH, J. P. (2000). *Treatment for chronic depression: Cognitive-behavioral analysis system of psychotherapy*. New York: Guilford Press.
- PINES, A. M., ARONSON, E., & KAFRY, D. (1981). *Burnout: From tedium to personal growth*. New York: Free Press.
- RICKER, M., NYSTUL, M., & WALDO, M. (1999). Counselors' and clients' ethnic similarity and therapeutic alliance in time-limited outcomes of counseling. *Psychological Reports*, 84, 674–676.
- ROGOSA, D. (1995). Myths and methods: "Myths about longitudinal research" plus supplemental questions. In J. M. Gottman (Ed.), *The analysis of change* (pp. 2–65). Mahwah, NJ: Erlbaum.
- SAFRAN, J. D., & WALLNER, L. K. (1991). The relative predictive validity of two therapeutic alliance measures in cognitive therapy. *Psychological Assessment*, 3, 188–195.
- SMITH, M. L., GLASS, G. V., & MILLER, T. I. (1980). *The benefits of psychotherapy*. Baltimore: Johns Hopkins University Press.
- STEIN, D. M., & LAMBERT, M. J. (1995). Graduate training in psychotherapy: Are therapy outcomes enhanced? *Journal of Consulting and Clinical Psychology*, 63, 182–196.
- SUE, S., FUJINO, D. C., HU, L.-T., TAKEUCHI, D. T., & ZANE, N. W. S. (1991). Community mental health services for ethnic minority groups: A test of the cultural responsiveness hypothesis. *Journal of Consulting and Clinical Psychology*, 59, 533–540.
- WILLET, J. B. (1988). Questions and answers in the measurement of change. *Review of Research in Education*, 15, 345–422.