University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Faculty Publications, Department of Psychology   Psychology, Department of

2-1990

Cognitive Behavioral Group Treatment for Social Phobia: Comparison with a Credible Placebo Control

Richard G. Heimberg
State University of New York at Albany, heimberg@temple.edu

Cynthia S. Dodge
State University of New York at Albany

Debra A. Hope
State University of New York at Albany, dhope1@unl.edu

Charles R. Kennedy
State University of New York at Albany

Linda J. Zollo
State University of New York at Albany

See next page for additional authors

Follow this and additional works at: https://digitalcommons.unl.edu/psychfacpub

    Part of the Psychology Commons

Authors

Richard G. Heimberg, Cynthia S. Dodge, Debra A. Hope, Charles R. Kennedy, Linda J. Zollo, and Robert E. Becker

Cognitive Behavioral Group Treatment for Social Phobia: Comparison with a Credible Placebo Control

Richard G. Heimberg,[1] Cynthia S. Dodge,[1] Debra A. Hope,[1]

Charles R. Kennedy,[1] Linda J. Zollo,[1] and Robert E. Becker[2]

1. University at Albany, State University of New York
2. Medical College of Pennsylvania at Eastern Pennsylvania Psychiatric Institute

Corresponding author – Richard G. Heimberg, Center for Stress and Anxiety Disorders, Department of Psychology, University at Albany, State University of New York, 1535 Western Avenue, Albany, New York 12203.

Abstract
Forty-nine patients participated in a study comparing cognitive-behavioral group treatment (CBGT) for social phobia with a credible placebo control. CBGT consisted of exposure to simulated phobic events, cognitive restructuring of maladaptive thoughts, and homework for self-directed exposure and cognitive restructuring between sessions. Control patients received a treatment package consisting of lecture-discussion and group support that was comparable to CBGT on measures of treatment credibility and outcome expectations. At pretest, posttest, and 3- and 6-month follow-ups, patients completed assessments that included clinician ratings, self-report measures, and behavioral physiological and cognitive-subjective measures derived from a behavioral simulation of a personally relevant phobic event. Both groups improved on most measures, but, at both posttest and follow-up, CBGT patients were rated as more improved than controls and reported less anxiety before and during the behavioral test. At follow-up, CBGT patients also reported significantly fewer negative and more positive self-statements than controls on a thought-listing task following the behavioral test. Regardless of treatment condition, follow-up changes in clinician-rated phobic severity were significantly related to changes on the thought-listing measure.

Keywords: social phobia, cognitive-behavioral group treatment, social anxiety, group treatment, anxiety disorders

Social phobia is defined as a persistent fear of situations in which the person is exposed to possible scrutiny by others and fears that he or she may do something that will be humiliating or embarrassing (American Psychiatric Association, 1987). Recent epidemiological studies (Myers et al., 1984) put the 6-month prevalence of social phobia at 0.9%–1.7% for men and 1.5%–2.6% for women. Despite its prevalence, social phobia has received less research attention than agoraphobia or the simple phobias and hence has been dubbed the "neglected anxiety disorder" (Liebowitz, Gorman, Flyer, & Klein, 1985).

Exposure has played a major role in the treatment of phobic disorders and is often viewed as the treatment of choice (Barlow & Beck, 1984). Although reports of exposure treatments for social phobia have just begun to appear, initial data suggest that exposure is also effective for social phobia (Heimberg, 1989; Heimberg, Dodge, & Becker, 1987). However, as Butler (1985) has noted, the variable and uncontrolled nature of social situations makes exposure treatments for social phobia more difficult to conduct than for other phobic patients. Furthermore, Emmelkamp (1982) and Butler (1985) have also speculated that social phobia may have a larger cognitive component than other anxiety disorders and that cognitive treatment, alone or in combination with exposure, may produce the most positive results. Studies that have examined cognitive restructuring packages such as rational-emotive therapy or self-instructional training have reported positive results (Emmelkamp, Mersch, Vissia, & van der Helm, 1985; Jerremalm, Jansson, & Ost, 1986; Kanter & Goldfried, 1979), but it is unclear whether cognitive techniques enhance exposure treatments. Two studies reported that a combined package was superior to exposure alone (Butler, Cullington, Munby, Amies, & Gelder, 1984; Mattick & Peters, 1988) and one did not (Biran, Augusto, & Wilson, 1981). We have speculated elsewhere (Heimberg & Barlow, 1988) that Biran's negative findings may be attributable to the fact that the cognitive procedures and exposures were administered separately. Arranging treatment procedures so that cognitive interventions immediately precede and follow behavioral procedures in the treatment session and in the natural environment should provide a stronger test.

Over the last few years we have devised a cognitive-behavioral treatment package that addresses the concerns raised above and by Butler (1985) and Emmelkamp (1982). Treatment is conducted in groups and features the following components: (a) specific educational exercises for the development of skill in identifying, categorizing, and disputing problematic cognitions, (b) exposure to personally relevant feared social events as simulated in the therapy group by therapists and group members, (c) cognitive restructuring exercises that immediately precede and follow simulated exposures, (d) homework assignments for self-directed exposure to phobic situations between weekly sessions with self-administered cognitive restructuring before and after the exposure. A preliminary version of this package was tested with seven patients in a multiple-baseline design (Heimberg, Becker, Goldfinger, & Vermilyea, 1985). After treatment, patients demonstrated significant reductions in anxiety as reflected in a series of behavioral, physiological, and subjective measures. These gains were maintained across a 6-month follow-up for six of the seven patients.

Few studies of the treatment of social phobia have included adequate control procedures. Fourteen of 17 studies reviewed by Heimberg (1989) utilized between-group designs, but 7 contained no control group and 5 included only a waiting list group. In the

present study we sought to evaluate the effectiveness of CBGT in comparison with a credible placebo treatment. A comparison treatment was developed to control for the effects of therapist attention, treatment credibility, and expectations for treatment outcome. A preliminary study suggested that treatment rationales based on CBGT and comparison treatments produced equivalent evaluations of treatment credibility (Kennedy & Heimberg, 1986).

Method

Subjects

Twenty-seven men and 22 women who sought treatment at the SUNY-Albany Phobia and Anxiety Disorders Clinic participated in the study. After an initial telephone screening, patients were interviewed with the Anxiety Disorders Interview Schedule (ADIS; DiNardo, O'Brien, Barlow, Waddell, & Blanchard, 1983) or its recent revision (Barlow, 1985). All participating patients were interviewed by clinical psychologists or advanced graduate students in clinical psychology and met DSM-III (American Psychiatric Association, 1980) criteria for social phobia. (A kappa coefficient of .905 has been previously reported for an ADIS diagnosis of social phobia; DiNardo et al., 1983.) Interviewers also rated each patient on the 0-to-8 Phobic Severity Rating Scale (Watson & Marks, 1971). Patients were included in the study only if this rating equaled or exceeded 4 (moderate impairment in daily functioning). Potential patients were excluded if they received a diagnosis of organic brain disorder, antisocial or avoidant personality disorder, or concurrent major depression, or received a score exceeding 25 on the 24-item version of the Hamilton Rating Scale for Depression (Hamilton, 1960), which is incorporated into the ADIS interview. Patients were also excluded if they received a diagnosis of another anxiety disorder and the symptoms of the second disorder were judged to be as severe as, or more severe than, their social phobic symptoms. If a patient had a history of alcohol or substance abuse, a 6-month period of abstinence was required prior to involvement in the study. Demographic characteristics are described in Table I.

Procedure

Subjects were assigned to Cognitive Behavioral Group Therapy (CBGT) or the Educational-Supportive Psychotherapy Comparison Group (ES). There were four groups per condition, with four to seven subjects per group. Groups met weekly for 12 2-hour sessions. Subjects were assigned to treatment groups as they appeared at the clinic, but treatment groups were assigned to conditions on the basis of a predetermined, randomly ordered list. Before the beginning of treatment, subjects participated in a preliminary interview, in which their treatment was explained and individualized treatment goals were derived. They then completed pretreatment assessment, which included self-report, behavioral, physiological, and clinician-rating measures. Assessments were repeated posttreatment and at follow-ups of 3 and 6 months.

Table I. Demographic Characteristics of Social Phobics Entering Cognitive Behavioral Group Therapy (CBGT) and Educational-Supportive Group Psychotherapy (ES)

	CBGT	ES
Women/men	11/14	11/13
Mean age (years)	29.88	31.00
Marital status		
Single	15	16
Married	9	2
Divorced/separated/widowed	1	6
Education		
High school or less	3	3
Some college	7	8
College graduate	15	13
Employment		
Employed	13	16
Unemployed	5	5
Student	7	3
Median income	$14,000	$13,000
Mean duration of social fears[a]		
≤ 5 years	4	5
6–15 years	11	9
≥ 15 years	4	9
As long as can remember	3	1

a. Three CBGT patients failed to answer this question.

Group sessions were conducted by male-female cotherapist teams. Therapists included a clinical psychologist (R.G.H.) and five advanced doctoral students in clinical psychology (including C.S.D., C.R.K., D.A.H., and L.J.Z.).[1] The first author served as cotherapist for two groups in each treatment condition and supervisor for the rest. Therapists received 10 to 12 hours of training in the conduct of each treatment and were supervised on a weekly basis. Audiotapes of all sessions were reviewed by R.G.H.

Treatments

Cognitive Behavioral Group Therapy

In session 1, therapists presented a cognitive-behavioral model of social phobia emphasizing the learned nature of social anxiety and the reciprocal influence of cognitive, behavioral, and physiological components of anxiety. During sessions 2 and 3, a didactic approach to the teaching of cognitive-behavioral concepts was adopted. Exercises developed in our research program or adapted from the work of others (Burns, 1980; Moorey & Burns, 1983; Sank & Shaffer, 1984) were utilized to teach patients to identify, analyze, and dispute problematic cognitions ("automatic thoughts").

Sessions 4–12 were devoted to simulated exposures, cognitive restructuring, and homework assignments. Each patient selected a target situation that was then simulated in the group. The roles of other persons or audiences were assumed by therapists, group members, or (occasionally) research assistants. Staging of the simulation was directed by the

therapists, but instructions were provided by the target patient to the other participants on how they should behave.

Immediately before and after each simulated exposure, therapists and group members assisted the target patient in identifying, analyzing, and disputing the automatic thoughts associated with the exposure situation. During simulations, patients gave periodic ratings of their anxiety on the 0-100 Subjective Units of Discomfort Scale (SUDS; Wolpe & Lazarus, 1966). These ratings were utilized in later cognitive restructuring discussions.

The importance of exposing oneself to anxiety-provoking situations and utilizing cognitive coping skills in real life was stressed throughout treatment. Homework assignments were made throughout treatment to facilitate this process. Early assignments were designed to aid in the acquisition of skills for cognitive restructuring. Later assignments were closely tied to simulated exposures. Patients were asked to place themselves in situations that were previously avoided or tolerated only with excessive anxiety. They were instructed to self-administer the cognitive restructuring procedures before and after the homework exposures. Homework assignments from the previous week were discussed at the beginning of each session.

During the final session, some time was devoted to review of homework and the conduct of simulated exposures. The remainder of the session was devoted to a discussion of what the patients had learned and how this learning might be applied in the future.

Educational Supportive Psychotherapy Comparison Group
ES combined educational presentations and supportive group psychotherapy. The initial session focused on introductions, ground rules, and the development of the treatment rationale. In the first portion of sessions 2–12, a series of lecture-demonstration-discussions was presented on topics of relevance to social phobic individuals: (a) definitions of fear, anxiety, and phobia, (b) theoretical formulations of social phobia, (c) fear of negative evaluation, (d) skills for effective conversation, (e) anticipatory anxiety, (f) physiological factors in anxiety, (g) assertiveness and interpersonal sensitivity, (h) perfectionism and the need for acceptance, (i) the need to be in control at all times, (j) an open topic, to be determined by the group, and (k) in the final session, an evaluation of the educational portion of the treatment. Homework assignments were given each week in the form of handouts that described the outline of the next session and posed questions for patients to consider. Written responses were brought to the following session and served as a basis for discussion.

In the second portion of sessions 2–12, group members shared their activities of the past week and concerns about upcoming anxiety-provoking events. They also suggested methods they may have used to cope with situations that were current for other group members. This support portion of each session was relatively unstructured. To assist therapists in keeping the discussion focused, a series of questions was provided for each session that was linked to the educational discussion in the first half of the session. Unlike CBGT, therapists refrained from providing specific encouragement or instruction for patients to seek out and confront phobic situations (i.e., exposure). However, patients were instructed to discuss whatever topics they chose and to use the group as a forum in which to prepare themselves for upcoming phobic events.

Assessment

Phobic Severity Rating Scale
This 0–8 clinician rating scale was administered pretreatment as part of the ADIS interview. It was repeated in an abbreviated interview at posttreatment and follow-up assessments by interviewers not involved in the subject's treatment.

Self-Report Assessment of Anxiety and Depression
Subjects completed several self-report questionnaires for the assessment of social anxiety and depression. These included the Social Avoidance and Distress Scale (SADS; Watson & Friend, 1969), the Fear of Negative Evaluation Scale (FNE; Watson & Friend, 1969), the Fear Questionnaire (FQ; Marks & Mathews, 1979), the Personal Report of Confidence as a Speaker (PRCS; Paul, 1966), and the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961).

Behavioral Simulation
All subjects participated in a behavioral simulation of a personally relevant anxiety-provoking event. Simulations were designed to recreate situations that typically evoked high levels of anxiety (at least 75 on the SUDS scale). Since personalized stimulus situations have been found to produce greater arousal and behavioral disruption than standardized situations in previous research (Chiauzzi, Heimberg, Becker, & Gansler, 1985), patients were not presented with identical stimuli. Examples of simulations included presenting material at a staff meeting, making a classroom presentation, or initiating a conversation with a person of the opposite sex. Graduate and undergraduate assistants (not involved in the subject's treatment) played the roles of audience or interaction partners during the assessment simulations.

  Before each simulation, subjects were fitted with heart rate monitoring equipment (described below) and prepared for the simulation. Following a 3-minute adaptation period for the heart rate assessment, the experimenter described the scenario for the upcoming simulation and asked the subject to think about it for 3 minutes. Immediately after this "anticipatory phase," subjects were taken to another room in which the audience or role-play partners awaited. Subjects had been previously informed that the simulation would be videotaped, and this room contained video recording equipment in full view of the subject. The second phase of the simulation, the "performance phase," consisted of the 4-minute role-play. Thereafter, subjects completed the thought-listing and simulation ratings described below.

Subjective Anxiety and Performance Quality. Subjects reported their subjective anxiety in anticipation of and during the simulation on the 0–100 SUDS scale. Subjects were prompted for ratings at 1-minute intervals, resulting in three anticipatory and five performance SUDS ratings. After the simulation, subjects also completed 0–100 scales to assess the maximum anxiety they experienced and the quality of their performances.

Heart Rate. Subjects' physiological arousal was assessed with a portable heart rate monitor (Exersentry III, Model No. 51330, by Respironics, Inc.). During simulations, subjects wore the Exersentry around the chest beneath their clothing. The Exersentry processes an electrocardiogram signal, providing as output a logic voltage corresponding to the presence or absence of a beat. For present use, the device had been rewired so that the voltage signal was diverted from the speaker to a cassette recorder. Each beat produced a voltage change that was recorded on tape. The recorder was carried in a purse or camera case and remained relatively unobtrusive during the simulation. Heart rate (in beats per minute) was calculated for the first 30 seconds of the performance and the 30 seconds surrounding each SUDS rating given by the subject, providing a total of five heart rate measurements.

Cognitive Assessment. Cognitive activity in response to the simulation was assessed with the thought-listing procedure used previously with socially anxious college students (Cacioppo, Glass, & Merluzzi, 1979; Heimberg, Acerra, & Holstein, 1985; Heimberg, Nyman, & O'Brien, 1987). Immediately following the simulation, subjects were given prepared forms and asked to record the thoughts they experienced during the performance phase, ignoring spelling, grammar, and punctuation. Graduate assistants later categorized thoughts as positive (facilitating relaxed and effective performance), negative (hindering relaxed and effective performance), or neutral-unclassifiable. Interrater agreement for a sample of 17 subjects was 86% for positive thoughts and 95% for negative thoughts (kappas = .79 and .93, respectively). As an additional cognitive assessment measure, subjects also completed the Social Interaction Self-Statement Test (Glass, Merluzzi, Biever, & Larsen, 1982).

Behavioral Measure. Videotapes of the performance phase of the simulations were analyzed with an adaptation of Paul's (1966) Timed Behavioral Checklist for Performance Anxiety (TBCL). The original TBCL was modified to fit present circumstances. Behaviors that could not be reliable detected on videotape (e.g., perspiring, blushing) were deleted, and others (e.g., nervous laughter) were added, yielding a total of 15 behavioral indices of anxiety. Audiotaped instructions prompted undergraduate observers to alternate between 10-second observation intervals and 10-second recording intervals. Behaviors could be scored only once per interval. Thus TBCL scores could range from 0 (no anxiety signs) to 180 (15 anxiety signs in each of the 12 intervals).

Before rating study data, observers were trained on videotapes from a previous study (Heimberg, Becker et al., 1985). Training was considered complete when observers achieved the criterion of $r = .80$ with the scoring recorded by the trainer (C.R.K.). Study data were independently rated by four undergraduate observers, each rating between 56 and 105 assessment simulations. Coefficients of agreement ranged from .904 to .927, with a median of .909.

Treatment Credibility and Outcome Expectancy
To assess whether or not the treatments were equally believable and produced similar expectations regarding treatment outcome, the Reaction to Treatment Questionnaire (RTQ;

Kennedy & Heimberg, 1986) was utilized. The RTQ, a questionnaire developed in the context of our research program, consists of three sections: (a) four questions developed by Borkovec and Nau (1972) to assess the credibility of treatment rationales, (b) nine items that ask subjects to rate their confidence that the treatment they received would effectively reduce anxiety in situations that have been demonstrated to be problematic for social phobics (Amies, Gelder, & Shaw, 1983), and (c) four items that ask subjects to rate the severity of their anxiety now, after treatment, 1 year later, and 5 years later. The RTQ was administered during the first and fourth treatment sessions.[2]

Results

Preliminary Analyses

Subject Attrition
Five subjects who received CBGT and four subjects who received ES failed to complete posttreatment assessment. Comparison of dropouts and completers on demographic variables revealed no significant differences. Analyses of pretest measures revealed a nonsignificant tendency for dropouts to appear more anxious on several measures. Dropouts ($M = 57.89$, $SD = 14.54$) did endorse more frequent negative self-statements on the SISST than completers ($M = 45.72$, $SD = 15.27$; $F(1, 43) = 4.65$, $p < .04$). They also tended to report more skepticism about the effectiveness of their assigned treatment than completers when assessed at the first session (RTQ–section a; Dropouts, $M = 6.11$, $SD = 2.08$; Completers, $M = 7.40$, $SD = 1.46$; t(41) = 2.01, p < .06).

Pretreatment Comparison of CBGT and ES Completers
No significant differences appeared in the analyses of pretreatment outcome measures. However, CBGT patients were more likely to be currently married, while ES patients were more likely to be previously married (divorced, separated, widowed), ($\chi^2(2, N = 49) = 7.32$, $p < .03$). CBGT patients also tended to report a higher family income than ES patients ($p < .09$), presumably due to the presence of more two-earner families. Additional analyses of the potential confounding effects of marital status on treatment outcome are reported below.

Treatment Credibility and Outcome Expectancy
CBGT and ES were essentially equivalent on these dimensions. Groups did not differ in their assessment of the credibility of their treatments or the mean confidence they placed in the treatments for the remediation of specific social fears, when assessed at either the first or the fourth session. CBGT and ES patients were also similar in their predictions of immediate and long-term outcome. In general, patients in both groups became more pessimistic in their predictions of treatment outcome from the first session to the fourth. For instance, both groups expected to be significantly more impaired at posttest when queried at session 4 than at session 1 (ps < .05).

Assessment of Treatment Outcome

Twenty subjects from each treatment condition completed the posttreatment assessment. Seventeen subjects from each condition were available for the 6-month follow-up assessment. For most measures, posttreatment or follow-up scores were submitted to analyses of covariance (ANCOVA) with pretreatment score as the covariate. Within-group changes were examined with dependent-sample *t* tests. Because of the larger number of self-report measures of anxiety and depression, multivariate analyses were conducted in advance of the univariate tests for these measures. Sample sizes vary from analysis to analysis because of missing data. Because the pattern of results at the two follow-ups was very similar, only the data for posttest and the 6-month follow-up are reported.

Phobic Severity Rating Scale

The analysis of covariance of posttreatment ratings revealed a significant effect of Treatment Condition on phobic severity ($F(1, 37) = 5.49$, $p < .03$). Treatment completers received a mean pretreatment phobic severity rating of 5.58 *(SD* = 1.08). While both groups demonstrated significant pretreatment-to-posttreatment change (ps $< .001$), CBGT patients' phobias were rated as significantly less severe (Adj. *M* = 2.38) than those of ES patients (Adj. *M* = 3.53) at posttest assessment. Six months later, this pattern remained the same. Both groups continued to demonstrate significant change from pretreatment ($p < .001$), but CBGT patients (Adj. *M* = 2.44) were again rated as less impaired than ES patients (Adj. *M* = 3.70; $F(1, 31) = 4.68$, $p < .04$). (See Figure 1.)
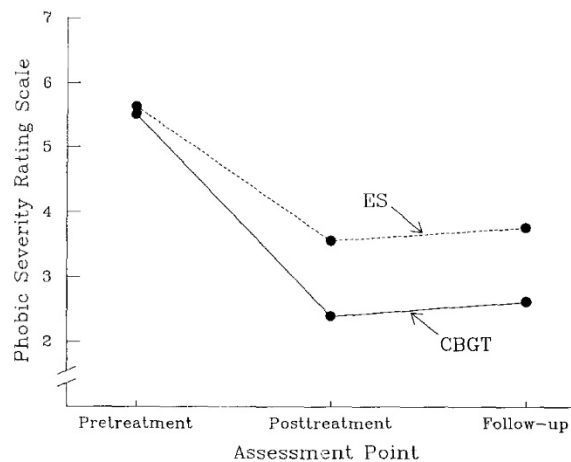

Figure 1. Phobic Severity Rating Scale scores for patients receiving Cognitive Behavioral Group Therapy or Educational-Supportive Group Psychotherapy.

The phobic severity rating also provided an index of the *number of patients* who manifested clinically significant improvement. Improvement was defined as (a) a decrease of at least 2 points *and* (b) an end-point score below 4, i.e., below the level defined as clinically significant. According to these criteria, 15 of 20 CBGT patients (75%) were judged to be improved at posttest while only 8 of 20 ES patients (40%) were judged to be improved

(χ^2 (1, N = 40) = 5.01, p < .05). At follow-up, 13 of 16 patients in CBGT were rated as improved (81%) compared with 8 of 17 patients in ES (47%) (χ^2(1, N = 33) = 4.16, p < .04).[3]

As a check on the effects of marital status on treatment outcome, further analyses of the phobic severity rating were undertaken. A treatment condition by marital status analysis was not possible because of the uneven distribution of currently and previously married subjects (see Table I), but single subjects could be compared with nonsingle subjects, separately by treatment condition. Fisher's Exact Tests revealed no significant differences in percent improvement between single and nonsingle subjects in either treatment condition at either posttest or follow-up assessment. Pooling across treatment conditions, nonsingle subjects were more likely to be classified as improved (78.6%) than single subjects (46.2%) at posttest (χ^2(1, N = 40) = 3.91, p < .05), but this pattern was no longer evident at follow-up (χ^2(1, N = 33) = 0.00, n.s. 63.6% improved).

Self-Report Measures of Anxiety and Depression

Multivariate analyses of covariance revealed no significant differences between CBGT and ES on the questionnaire measures at either posttest or follow-up. However, patients in both conditions showed significant multivariate changes from pretest to posttest (CBGT: F(7, 13) = 5.04, p < .006; ES: F(7, 13) = 2.92, p < .05). Each group showed significant change on six of seven self-report measures. For CBGT patients, the number and magnitude of significant within-group changes remained stable from pretest to follow-up (Multivariate F(7, 10) = 4.23, p < .02). For ES patients, however, overall within-group change fell short of significance at the 6-month follow-up (Multivariate F(7, 10) = 2.73, .05 < p < .10). Weaker effects at follow-up for ES patients were accounted for by failure to maintain change on the main fear, social phobia, and total fear scores on the FQ. Subjects' scores on the self-report measures of anxiety and depression are reported in Tables II and III.

Table II. Cognitive Behavioral Group Therapy: Means, Standard Deviations, and Significance of Within-Group Changes for Self-Report Measures of Anxiety and Depression[a]

Measures	Pretreatment	Posttreatment	Follow-up	t(pre-post)	t(pre-follow-up)
FNE	24.73 (5.23)	20.78 (7.62)	19.11 (8.16)	2.45[b]	3.81[d]
SADS	16.41 (9.64)	13.53 (8.69)	12.24 (10.14)	1.68	1.97
PRCS	24.76 (4.59)	16.76 (8.75)	16.06 (9.58)	4.03[d]	3.69[c]
FQ—Main fear	6.29 (2.05)	3.79 (2.89)	4.15 (3.08)	3.35[c]	2.76[b]
FQ—Social phobia	20.83 (6.81)	12.89 (7.46)	13.23 (9.11)	4.32[d]	3.58[c]
FQ—Total score	35.67 (16.41)	22.39 (11.87)	21.53 (15.88)	3.92[d]	3.86[d]
BDI	13.15 (8.76)	6.05 (7.91)	8.17 (8.28)	3.94[d]	2.43[b]

a. Numbers in parentheses are standard deviations. FNE = Fear of Negative Evaluation Scale, SADS = Social Avoidance and Distress Scale, PRCS = Personal Report of Confidence as a Speaker, FQ = Fear Questionnaire, BDI = Beck Depression Inventory.
b. p < .05
c. p < .01
d. p < .001

Table III. Educational-Supportive Group Psychotherapy: Means, Standard Deviations, and Significance of Within-Group Changes for Self-Report Measures of Anxiety and Depression[a]

Measures	Pretreatment	Posttreatment	Follow-up	t(pre-post)	t(pre-follow-up)
FNE	25.11 (5.67)	22.79 (8.13)	22.25 (7.04)	1.51[b]	2.49[b]
SADS	19.79 (8.98)	15.95 (9.38)	17.63 (8.25)	2.17[b]	2.35[b]
PRCS	23.19 (5.27)	18.19 (7.21)	18.31 (8.73)	3.57[c]	2.74[b]
FQ—Main fear	5.73 (1.94)	3.80 (2.04)	5.08 (1.98)	3.15[c]	1.62[b]
FQ—Social phobia	19.28 (8.10)	13.56 (6.88)	14.60 (8.48)	2.98[c]	1.47
FQ—Total score	34.61 (18.35)	24.00 (12.20)	29.20 (23.24)	2.77[b]	0.90
BDI	13.80 (7.91)	8.85 (7.80)	8.00 (9.94)	2.55[b]	2.76[b]

a. Numbers in parentheses are standard deviations. FNE = Fear of Negative Evaluation Scale, SADS = Social Avoidance and Distress Scale, PRCS = Personal Report of Confidence as a Speaker, FQ = Fear Questionnaire, BDI = Beck Depression Inventory.

b. $p < .05$

c. $p < .01$

Behavioral Simulation Measures

Subjective Anxiety and Performance Quality. Analyses of SUDS ratings revealed a number of differences between CBGT and ES (see Fig. 2). Both groups demonstrated significant reductions in anticipatory phase SUDS ratings at posttest ($ps < .01$). However, an ANCOVA with SUDS Probe as a repeated measure revealed a significant Treatment Condition × SUDS Probe interaction ($F(2, 73) = 4.92$, $p < .01$). Post hoc analysis of the interaction effect with Duncan's Multiple Range Test revealed that ES patients reported greater anxiety than CBGT patients at each SUDS probe. In addition, while CBGT patients' anxiety remained stable, ES patients' ratings increased significantly as the performance phase drew nearer. Analysis of posttreatment performance phase SUDS ratings revealed significant effects for Treatment Condition ($F(1, 36) = 5.48$, $p < .03$) and SUDS Probe ($F(4, 147) = 4.33$, $p < .003$). The interaction was not significant. CBGT patients reported significantly less anxiety (Adj. $M = 19.86$) during the behavioral simulation than ES patients (Adj. $M = 31.17$). Scores for the entire sample decreased from the first SUDS probe to the last.

At the 6-month follow-up, within-group change from pretreatment remained significant during both the anticipatory and performance phases for CBGT patients ($ts(16) = 4.53$, 7.99, $ps < .001$), but only for the performance phase for ES patients ($t(16) = 2.71$, $p < .02$). ANCOVAs revealed significant effects of Treatment Condition for both anticipatory ($F(1, 30) = 5.81$, $p < .03$) and performance SUDS ($F(1, 30) = 10.30$, $p < .003$), with CBGT patients reporting less anxiety in both phases.
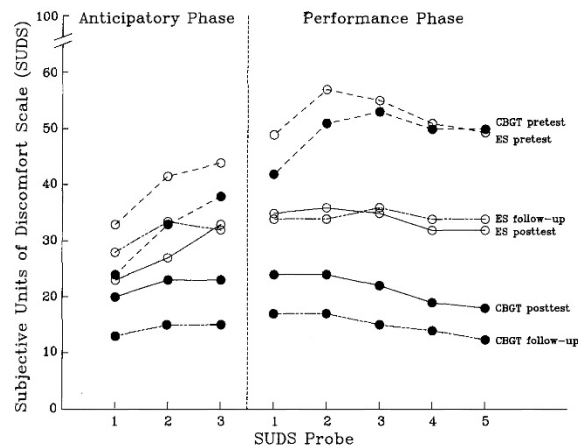
Figure 2. Subjective Units of Discomfort Scale scores obtained during behavioral simulations from patients receiving Cognitive Behavioral Group Therapy or Educational-Supportive Group Psychotherapy.

Patients in both treatments showed significant improvements in their ratings of maximum anxiety and performance quality at posttreatment assessment ($ps < .01$), but there were no differences between the two groups. At follow-up, CBGT patients continued to show significant improvement in both ratings, but for ES patients only the pretreatment-to-follow-up change in maximum anxiety remained significant. The analysis of covariance of follow-up maximum anxiety ratings showed significantly greater improvement for CBGT patients ($F(1, 30) = 5.41$, $p < .03$). On the 0–100 anxiety scale, CBGT patients averaged 26.26 while ES patients averaged 41.98.

Heart Rate. Patients in both treatment conditions showed significant within-group reductions in heart rate at posttreatment assessment ($ps < .03$). CBGT patients showed an average reduction of 8.29 beats per minute, ES patients a mean reduction of 11.28 beats per minute. At follow-up, within-group change remained significant for the ES group ($M = 13.73$) but not the CBGT group ($M = 7.83$). ANCOVAs with Measurement Period as a repeated measure failed to reveal significant differences between groups at either assessment point.

Cognitive Assessment. Patients in both conditions showed significant increases in the percentage of listed positive thoughts at both posttreatment and follow-up assessment. Both groups also showed significant decreases in the percentage of listed negative thoughts at posttreatment, but at follow-up assessment this change remained significant only for CBGT patients. No differences between treatments on either measure were noted at posttest. At follow-up, however, CBGT patients reported a greater percentage of positive thoughts and a lesser percentage of negative thoughts than ES patients ($Fs (1, 29) = 4.86, 5.64$, $ps < .04$). CBGT patients reported (adjusted) means of 47% positive thoughts and 22% negative thoughts, while ES patients reported (adjusted) means of 22% positive thoughts and 46% negative thoughts.

CBGT and ES patients did not differ in their response to the SISST. Subjects in both conditions showed significant increases in positive self-statements at posttest but little change in negative self-statements as measured by the SISST.

Behavioral Measure. Patients in both treatment conditions tended to exhibit fewer behavioral signs of anxiety at posttest (ps < .10). At follow-up, this reduction was significant (p < .05) only for ES patients. However, the difference between groups was not significant at either posttest or follow-up.

Correlational Analyses

Pearson product-moment correlations were calculated between change in phobic severity and change in positive and negative self-statement percentage scores derived from the thought-listing task. Pretest-to-follow-up change scores were used in these analyses, and only full-sample results are reported because of sample size restrictions. Change in phobic severity as rated by clinical interviewers was significantly related to both self-statement change measures, although slightly more so for negative self-statements (r(32) = .44, p < .005) than positive self-statements (r(32) = −.31, p < .05).

Discussion

The present study examined the effectiveness of a cognitive-behavioral group treatment package for social phobia. The cognitive-behavioral package was found to produce statistically and clinically significant reductions in social phobic anxiety. While other studies (Emmelkamp et al., 1985; Jerremalm et al., 1986; Kanter & Goldfried, 1979) have found cognitive-behavioral treatment packages to produce meaningful changes in anxiety, the present findings are significant because CBGT was found to produce results superior on several measures to those achieved by a credible comparison condition.

The ES treatment was developed as a control for therapist attention, treatment credibility, outcome expectation, and other "nonspecific factors" that compete with specific therapeutic procedures as potential agents of change. Preliminary analyses of the rationale for the ES condition (Kennedy & Heimberg, 1986) revealed it to be as credible as CBGT and other accepted treatments for social anxiety, and, in fact, ES and CBGT did not differ on any measure of treatment credibility when assessed at either the first or the fourth session. Thus, treatment credibility and outcome expectancy seem to be unlikely explanations for the present results.

In studies comparing theoretically active treatments with placebo-control conditions, it may be expected that both conditions will produce significant change, and this was the case in the present study. ES led to significant within-group changes on several measures, including the phobic severity rating, SUDS ratings, self-statement scores, and scores on several questionnaires. ES patients demonstrated significant change on heart rate and the TBCL (when assessed at the 6-month follow-up) while CBGT patients did not. However, in no case did the scores of ES patients show significantly greater improvement than those of CBGT patients—all significant between-groups analyses favored CBGT. In addition, ES

patients' improvements seemed more fleeting as scores on several measures showed significant change at posttest but not when assessed at the 6-month follow-up. This pattern was evident for CBGT patients on only a single measure (heart rate).

To what may the superior showing of CBGT be attributed? First, we must acknowledge a variable that may have influenced our findings. Although groups of patients were randomly assigned to conditions, CBGT patients were significantly more likely to be currently married and tended to report a higher family income than ES patients. ES patients were more likely to be previously married. Thus, it is possible that the greater improvement evidenced by CBGT patients is related to a difference between conditions in degree of social/emotional/financial support. Unfortunately, this unequal distribution prohibited the use of marital status as an additional independent variable. However, comparisons of single and nonsingle subjects, separately for CBGT and ES, revealed no differences, providing some measure of confidence that marital status was not a confounding variable. Since studies of other anxiety disorders (e.g., agoraphobia; Barlow, O'Brien, & Last, 1984) suggest that spousal involvement in treatment may positively affect outcome, this question bears further examination.

CBGT patients were rated as more improved than ES patients at posttreatment, and this difference remained stable between posttest and follow-up. Examination of other measures that discriminated between groups may suggest some hypotheses to account for this pattern. Patients in both groups exhibited changes in their self-statement patterns over the course of treatment and follow-up (as assessed by the thought-listing task). While between-group differences did not achieve significance at posttest, CBGT patients demonstrated greater change on both positive and negative self-statements by the follow-up assessment. Thus, their greater overall improvement appears to be related to cognitive change and may be related to the continued use of cognitive coping strategies. This hypothesis is consistent with the speculations of Butler (1985) and Emmelkamp (1982) that cognitive techniques may be of central importance in the treatment of social phobia, but it is not clearly consistent with the findings of previous studies. Butler et al. (1984) found that exposure was significantly aided by the addition of an anxiety management package that included a variety of cognitive coping strategies, but the exposure-alone condition in that study was significantly less credible than the combined package. Biran et al. (1981) and Stravynski, Marks, and Yule (1982) found that cognitive restructuring did not enhance the effectiveness of more strictly behavioral techniques. However, as we noted above, the method of administration of the cognitive techniques may have reduced their effectiveness. Mattick and Peters (1988) have recently reported that cognitive restructuring *did* enhance the outcome of therapist-assisted exposure in the treatment of severe but specific social phobias (e.g., fears of eating, drinking, or writing in public). Thus, the facilitative role of cognitive techniques in combination with behavioral treatments for social phobia remains an open question. Since the CBGT package included a number of techniques, future research should examine the relative contribution of cognitive restructuring, in-session exposures, and homework assignments for exposure and cognitive coping to the gains achieved by CBGT patients.

If the use of cognitive strategies is, in fact, related to the positive outcome for CBGT patients, a further question arises: How does the use of these strategies mediate anxiety

reduction? Does it reduce anxiety by altering patients' constructions of situations or does it exert its effect by facilitating exposure, which then mediates anxiety reduction? While the design of this study does not allow definitive statements, examination of patients' SUDS scores may suggest a possible mechanism. At posttest, the two groups showed different patterns of anticipatory anxiety. CBGT patients maintained a low, stable level of anxiety. ES patients, on the other hand, showed a pattern of escalating anxiety as the assessment simulation approached, maximizing the difference between the two conditions by the end of the anticipatory phase. SUDS ratings for both groups of patients remained stable during the performance phase at a level predictable from their final anticipatory SUDS rating. A similar, but less clear-cut, pattern was demonstrated at follow-up. This pattern would appear to suggest that the difference in anxiety experienced by CBGT and ES patients was evident before their entry into the situation and may be a likely correlate of differences in cognitive constructions.

Several authors (Heimberg, Keller, & Peca-Baker, 1986; Kendall & Korgeski, 1979) have suggested the importance of including cognitive assessment measures in studies of cognitive-behavioral techniques. It is important to show that cognitive techniques result in changes on these measures. It is also important to show that changes on cognitive assessment measures are related to changes in the target behavior. Changes in positive and negative self-statements were significantly related to changes in phobic severity. A number of points are important here. First, since self-statement change was related to improvement regardless of treatment condition, it may be that cognitive change is an important building block for behavior change and that CBGT and ES differed primarily in their ability to instigate cognitive change. Second, previous research has stressed the more central role of reduction of negative self-statements in behavior change (Kendall & Hollon, 1981). However, while the magnitude of the correlation between changes in positive self-statements and phobic severity was less than the correlation for negative self-statements, this difference was not significant. Third, Schwartz and Garamoni (1986) have suggested that changes in the ratio of positive self-statements to the sum of positive and negative self-statements (the "states-of-mind" ratio) should be most strongly related to behavior change. However, the correlation of this ratio to change in phobic severity was $-.43$ ($N = 31$, $p < .05$), nearly identical in magnitude to the r between change in phobic severity and negative self-statements alone.

Some of these arguments hinge on the greater changes achieved by CBGT subjects (or improved subjects) on cognitive assessment measures. However, differential change was evident on the thought-listing task but not on the SISST. Inconsistent patterns of results for production and endorsement methods of cognitive assessment have been the rule rather than the exception in recent research (e.g., Glass & Furlong, in press; Myszka, Galassi, & Ware, 1986). Also, in this study, SISST instructions to report self-statements after a role-played interaction were modified to refer to an interaction in the subject's recent experience. While this strategy has demonstrated validity (Dodge, Hope, Heimberg, & Becker, 1988), it has been criticized by the creator of the SISST as less likely to reflect change (Arnkoff & Glass, 1989).

Anxiety has been conceptual as three loosely related response systems the behavioral, physiological, and cognitive/subjective (Lang, 1968). In the present study, CBGT patients

showed their greatest change on cognitive/subjective measures. Behavioral and physiological changes were smaller, more variable, and more inconsistent. In fact, only ES patients showed significant reductions on both behavioral and physiological measures of anxiety at the follow-up assessment. However, these changes were not reflected in clinicians' ratings or in ES patients' own reports of subjective anxiety. Again, this raises the question of which components of the anxiety response are most related to ratings of patient improvement. In the study by Mattick and Peters (1988), reductions in fear of negative evaluation were most closely related to patient improvement. While these investigators did not include physiological measures, behavioral scores did not contribute to prediction of outcome.

The unusual pattern of findings for the behavioral measure may have been a statistical artifact. Behavioral scores were generally at the low (nonanxious) end of the possible distribution of scores (0–180) at pretest assessment (CBGT $M = 19.42$; ES $M = 23.33$; all scores < 39), and a floor effect may have come into play. While only ES subjects showed significant reductions in TBCL scores from pretest to follow-up, CBGT and ES subjects differed by only 0.43 on this measure at follow-up.

CBGT appears to be a viable treatment for individuals who experience social phobic anxiety. It is more effective than ES on a variety of measures. Future research should consider the following lines of investigation: (a) identification of the effective components of the CBGT package, (b) investigation of the effectiveness of CBGT when administered in group versus individual formats, (c) examination of the effectiveness of CBGT in comparison with other treatment procedures, including applied relaxation training and social skills training, (d) comparison of CBGT to anxiolytic or antidepressant medication, (e) identification of patient characteristics that are predictive of treatment outcome, and (f) examination of the mechanisms by which CBGT results in anxiety reduction.

Notes

1. Janet S. Klosko also served as a therapist for one of our groups.
2. In addition to other measures described in this paper, subjects also completed daily self-monitoring records for a period of 2 weeks surrounding each assessment point. These records were intended to provide an assessment of the transfer of treatment gains into the natural environment. Unfortunately, however, compliance with record-keeping procedures was low and the percentage of missing data unacceptably high. Since these data cannot be clearly interpreted, they have not been included in the present report.

3. Different results may obtain from the application of different criteria. Jacobson and Revenstorf (1988) have suggested a twofold criterion for assessing clinical significance of behavior change when adequate norms on a measure do not exist. They suggest that (1) change should be statistically significant and (2) the individual subject must end up no less than 2 standard deviations beyond the mean of the dysfunctional population when treatment is complete. If we take the mean pretreatment phobic severity rating of the initial sample (M = 5.49, SD = 1.06; n = 49) to represent the mean of the dysfunctional population, then a subject would be required to achieve an end-point score of 3.37, similar to our criterion of a score of 3 or less. Jacobson and Revenstorf (1988) suggest that statistical significance be based on their reliable change (RC) index, i.e., the absolute magnitude of change divided by the standard error of the change score (as suggested by Christensen & Mendoza, 1986). Applying the twofold criteria of Jacobson and Revenstorf to our data reveals a similar but more conservative pattern of outcome. At posttest assessment, 65% of CBGT patients and 40% of ES patients are classified as improved. At follow-up, 69% of CBGT patients and 35% of ES patients are improved.

References

American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: Author.

American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (3rd ed., rev.). Washington, DC: Author.

Amies, P. L., Gelder, M. G., & Shaw, P. M. (1983). Social phobia: A comparative clinical study. *British Journal of Psychiatry, 142,* 174–179.

Arnkoff, D. B., & Glass, C. R. (1989). Cognitive assessment in social anxiety and social phobia. *Clinical Psychology Review, 9,* 61–74.

Barlow, D. H. (1985). The dimensions of anxiety disorders. In A. H. Tuma & J. D. Maser (Eds.), *Anxiety and the anxiety disorders* (pp. 479–500). Hillsdale, N J: Erlbaum.

Barlow, D. H., & Beck, J. G. (1984). The psychosocial treatment of anxiety disorders: Current status, future directions. In J. B. W. Williams & R. L. Spitzer (Eds.), *Psychotherapy research: Where are we and where should we go?* (pp. 29–66). New York: Guilford Press.

Barlow, D. H., O'Brien, G. T., & Last, C. G. (1984). Couples treatment of agoraphobia. *Behavior Therapy, 15,* 41–58.

Beck, A. T., Ward, C. H., Mendelson, M. J., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4,* 561–571.

Biran, M., Augusto, F., & Wilson, G. T. (1981). *In vivo* exposure vs. cognitive restructuring in the treatment of scriptophobia. *Behaviour Research and Therapy, 19,* 525–532.

Borkovec, T. D., & Nau, S. D. (1972). Credibility of analogue therapy rationales. *Journal of Behavior Therapy and Experimental Psychiatry, 3,* 257–260.

Burns, D. D. (1980) *Feeling good: The new mood therapy.* New York: William Morrow.

Butler, G. (1985). Exposure as a treatment for social phobia: Some instructive difficulties. *Behaviour Research and Therapy, 23,* 651–657.

Butler, G., Cullington, A., Munby, M., Amies, P., & Gelder, M. (1984). Exposure and anxiety management in the treatment of social phobia. *Journal of Consulting and Clinical Psychology, 52,* 642–650.

Cacioppo, J. T., Glass, C. R., & Merluzzi, T. V. (1970). Self-statements and self-evaluations: A cognitive-response analysis of heterosocial anxiety. *Cognitive Therapy and Research, 3,* 249–262.

Chiauzzi, E. J., Heimberg, R. G., Becket, R. E., & Gansler, D. (1985). Personalized versus standard role plays in the assessment of depressed patients' social skill. *Journal of Psychopathology and Behavioral Assessment, 7,* 121–133.

Christensen, L., & Mendoza, J. L. (1986). A method of assessing change in a single subject: An alteration of the RC index. *Behavior Therapy, 17,* 305–308.

DiNardo, P. A., O'Brien, G. T., Barlow, D. H., Waddell, M. T., & Blanchard, E. B. (1983). Reliability of DSM-III anxiety disorder categories using a new structured interview. *Archives of General Psychiatry, 40,* 1070–1074.

Dodge, C. S., Hope, D. A., Heimberg, R. G., & Becker, R. E. (1981). Evaluation of the Social Interaction Self-Statement Test with a social phobic population. *Cognitive Therapy and Research, 12,* 211–222.

Emmelkamp, P. M. G. (1982). *Phobic and obsessive-compulsive disorders: Theory, research and practice.* New York: Plenum Press.

Emmelkamp, P. M. G., Mersch, P. P., Vissia, E., & van der Helm, M. (1985). Social phobia: A comparative evaluation of cognitive and behavioral interventions. *Behaviour Research and Therapy, 23,* 365–369.

Glass, C. R., & Furlong, M. (in press). Cognitive assessment of social anxiety: Affective and behavioral correlates. *Cognitive Therapy and Research.*

Glass, C. R., Merluzzi, T. V., Biever, J. L., & Larsen, K. H. (1982). Cognitive assessment of social anxiety: Development and validation of a self-statement questionnaire. *Cognitive Therapy and Research, 6,* 37–55.

Hamilton, M. (1960). A rating scale for depression. *Journal of Neurology, Neurosurgery, and Psychiatry, 23,* 56–62.

Heimberg, R. G. (1989). Cognitive and behavioral treatments for social phobia: A critical analysis. *Clinical Psychology Review, 9,* 107–128.

Heimberg, R. G., Acerra, M., & Holstein, A. (1985). Partner similarity mediates interpersonal anxiety. *Cognitive Therapy and Research, 9,* 436–445.

Heimberg, R. G., & Barlow, D. H. (1988). Psychosocial treatments for social phobia. *Psychosomatics, 29,* 27–37.

Heimberg, R. G., Becker, R. E., Goldfinger, K., & Vermilyea, J. A. (1985). Treatment of social phobia by exposure, cognitive restructuring and homework assignments. *Journal of Nervous and Mental Disease, 173,* 236–245.

Heimberg, R. G., Dodge, C. S., & Becker, R. E. (1987). Social phobia. In L. Michelson & M. Ascher (Eds.), *Anxiety and stress disorders* (pp. 280–309). New York: Guilford Press.

Heimberg, R. G., Keller, K. E., & Peca-Baker, T. (1986). Cognitive assessment of social-evaluative anxiety in the job interview: Job Interview Self-Statement Schedule. *Journal of Counseling Psychology, 33,* 190–195.

Heimberg, R. G., Nyman, D. S., & O'Brien, G. T. (1987). Assessing variations of the thought-listing technique: Effects of stimulus intensity, stimulus modality, instructions, and scoring procedures. *Cognitive Therapy and Research, 11,* 13–24.

Jacobson, N. S., & Revenstorf, D. (1988). Statistics for assessing clinical significance of psychotherapy techniques: Issues, problems, and new developments. *Behavioral Assessment, 10,* 133–145.

Jerremalm, A., Jansson, L., & Ost, L. G. (1986). Cognitive and physiological reactivity and the effects of different behavioral methods in the treatment of social phobia. *Behaviour Research and Therapy, 24,* 171–180.

Kanter, N. J., & Goldfried, M. R. (1979). Relative effectiveness of rational restructuring and self-control desensitization in the reduction of interpersonal anxiety. *Behavior Therapy, 10,* 472–490.

Kendall, P. C., & Hollon, S. D. (1981). Assessing self-referent speech: Methods in the measurement of self-statements. In P. C. Kendall & S. D. Hollon (Eds.), *Assessment strategies for cognitive-behavioral interventions* (pp. 85–118). New York: Academic Press.

Kendall, P. C., & Korgeski, G. P. (1979). Assessment and cognitive-behavioral interventions. *Cognitive Therapy and Research, 3,* 1–21.

Kennedy, C. R., & Heimberg, R. G. (1986, November). *Treatment credibility and client outcome expectancy: An evaluation of five treatment rationales.* Paper presented at the annual meeting of the Association for the Advancement of Behavior Therapy, Chicago.

Lang, P. J. (1968). Fear reduction and fear behavior: Problems in treating a construct. In J. M. Shlien (Ed.), *Research in psychotherapy* (Vol. 3). Washington, DC: American Psychological Association.

Liebowitz, M. R., Gorman, J. M., Fyer, A. J., & Klein, D. F. (1985). Social phobia: Review of a neglected anxiety disorder. *Archives of General Psychiatry, 42,* 729–736.

Marks, I. M., & Mathews, A. M. (1979). Brief standard self-rating for phobic patients. *Behaviour Research and Therapy, 17,* 263–267.

Mattick, R. P., & Peters, L. (1988). Treatment of severe social phobia: Effects of guided exposure with and without cognitive restructuring. *Journal of Consulting and Clinical Psychology, 56,* 251–260.

Moorey, S., & Burns, D. D. (1983). The apprenticeship model: Training in cognitive therapy by participation. In A. Freeman (Ed.), *Cognitive therapy with couples and groups* (pp. 303–321). New York: Plenum.

Myers, J. K., Weissman, M. M., Tischler, G. L., Holzer, C. E. III, Leaf, P. J., Orvaschel, H., Anthony, J. C., Boyd, J. H., Burke, J. D., Jr., Kramer, M., & Stolzman, R. (1984). Six-month prevalence of psychiatric disorders in three communities. *Archives of General Psychiatry, 41,* 959–967.

Myszka, M. T., Galassi, J. P., & Ware, W. B. (1986). Comparison of cognitive assessment methods with heterosocially anxious women. *Journal of Counseling Psychology, 33,* 401–407.

Paul G. L. (1966). *Insight vs. desensitization in psychotherapy.* Stanford, CA: Stanford University Press.

Sank, L. I., & Shaffer, C. S. (1984). *A therapist's manual for cognitive behavior therapy in groups.* New York: Plenum.

Schwartz, R. M., & Garamoni, G. L. (1986). A structural model of positive and negative states of mind: Asymmetry in the internal dialogue. In P. C. Kendall (Ed.), *Advances in cognitive-behavioral research and therapy* (Vol. 5, pp. 1–62) New York: Academic Press.

Stravynski, A., Marks, I., & Yule, W. (1982). Social skills problems in neurotic outpatients: Social skills training with and without cognitive modification. *Archives of General Psychiatry, 39,* 1378–1385.

Watson, D., & Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of Consulting and Clinical Psychology, 33,* 448–457.

Watson, J. P., & Marks, I. M. (1971). Relevant and irrelevant fear in flooding—A crossover study of phobic patients. *Behavior Therapy, 2,* 275–293.

Wolpe, J., & Lazarus, A. A. (1966). *Behavior therapy techniques: A guide to the treatment of neuroses.* Oxford: Pergamon.