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Self-help cognitive–behavioral therapy with minimal therapist contact for social phobia: A controlled trial

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ABSTRACT

Due to treatment accessibility and cost issues, interest in self-help programs (e.g., bibliotherapy, telehealth) for common psychological disorders is growing. Research supporting the efficacy of such a program for social anxiety, however, is limited. The present study examined the efficacy of an 8-week self-directed cognitive behavioral treatment with minimal therapist involvement for social phobia based on a widely available self-help book. Twenty-one adults with social phobia initially received either treatment (i.e. assigned readings in the workbook with limited therapist contact) or were wait-listed. Wait-listed patients eventually received the same self-directed treatment. Results revealed that the self-help/minimal therapist contact treatment was superior to wait-list on most outcome measures. Across the entire sample, reductions in social anxiety, global severity, general anxiety, and depression were observed at posttest and 3-month follow-up. These findings provide preliminary support for using this self-help workbook for individuals with mild to moderate social anxiety in conjunction with infrequent therapist visits to reinforce the treatment principles. Study limitations and future directions are discussed.

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1. Introduction

Social phobia (SP) is characterized by the extreme fear of embarrassment, criticism, or negative evaluation (American Psychiatric Association, 2000). Individuals with SP frequently avoid, or endure with great difficulty, social situations such as parties, interviews, speaking in groups, and dating. These symptoms are often highly distressing and typically produce functional impairment. Empirically supported psychological treatments for SP primarily incorporate 2 cognitive–behavioral therapy (CBT) techniques: cognitive restructuring (e.g., Beck, Emery, & Greenberg, 1985) and situational (in vivo) exposure. Numerous trials indicate that CBT is an effective short- and long-term intervention for SP (Heimberg & Becker, 2002).

Despite its efficacy, the widespread use of CBT for SP is impeded by accessibility and cost issues. Only a small number of therapists are well trained to use CBT (Sholomskas et al., 2005). Individuals with SP might also be fearful of pursuing treatment because it involves social contact. Finally, many patients cannot afford treatment (e.g., due to unemployment). Accordingly, interest in self-help CBT has grown and studies with panic disorder (e.g., Gould & Clum, 1995), agoraphobia (e.g., Gosh & Marks, 1987), obsessive–compulsive disorder (Fritzler, Hecker, & Losee, 1997), and depression (Jamison & Scogin, 1995) have yielded encouraging findings. To date, however, there has been little research on self-directed treatments for SP.

The *Shyness and Social Anxiety Workbook* (SSAW; Antony & Swinson, 2000) is a CBT-based self-help resource that includes instruction in how to implement cognitive restructuring and situational exposure. Although it is based on an empirically supported approach, its efficacy has not been evaluated. The aim of the present study was therefore to examine the efficacy of an 8-week self-directed treatment for SP based on the SSAW with minimal therapist involvement. We hypothesized that patients would show significant reductions in SP and related symptoms over the 8-week treatment period, and that treatment would produce superior results compared to wait-list. We also predicted patients would maintain improvement up to 6 months following treatment. Finally, on the basis of past research (e.g., Leung & Heimberg, 1996), we predicted that symptom improvement would be associated with greater self-reported adherence to the SSAW.

2. Method

2.1. Participants

Twenty-one adults (18 years or older) participated in the study, which took place in a multidisciplinary anxiety disorders clinic housed in an academic medical center. Recruitment methods included advertisements and referrals from mental health providers. Inclusion criteria were (a) DSM-IV diagnosis of SP, (b) a score of >20 on the Brief Social Phobia Scale (Davidson, Potts, Richichi, & Ford, 1991), (c) at least an 8th grade English reading level as assessed by the Wide Range Achievement Test [WRAT], 3rd ed. – Reading subscale (Wilkinson, 1993), and (d) willing and able to attend 5 treatment sessions, and willing to receive minimal therapist contact and bibliotherapy. Individuals were excluded if they reported active suicidal ideation, a history of psychosis or bipolar disorder, substance abuse/dependence in last 6 months, met criteria for borderline personality disorder, endorsed severe depression as indicated by a Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) score of >30, or had previously received an adequate trial of CBT. Individuals on psychotropic medication were instructed to remain on their current dose and were included as long as they had been at the same dosage for 3 months or more.

Twenty-eight individuals were screened for the study. Of the 21 who met entry criteria and agreed to participate, 16 (76%) were women and all were Caucasian. The mean age was 43.4 years (SD = 10.8; range = 23–67). Twelve (57%) were married, 5 (24%) were divorced, and 3 (14%) had never been married. Twelve patients (57%) were currently taking medication for SP, and 10 (48%) met the criteria for additional psychiatric diagnoses, including generalized anxiety disorder ($n = 2$), mood disorders ($n = 4$), obsessive–compulsive disorder ($n = 1$), panic disorder with agoraphobia ($n = 1$), and eating disorders ($n = 2$).

2.2. Design

Participants were randomly assigned to 1 of 2 conditions: Immediate Treatment (IT) or Wait-List (WL). Individuals in the IT group received the SSAW and began treatment within 2 weeks of enrolling in the study. Those in the WL group received no intervention for SP for 8 weeks, but subsequently received a copy of the SSAW and the same treatment as the IT group. Details of the treatment are described in Section 2.5 below. Symptom severity was assessed at pretest, posttest, and at 3-month follow up. The WL group was also assessed following the 8-week waiting period, but before beginning active treatment (see Fig. 1).

2.3. Measures

The severity of SP symptoms was assessed with the interviewer-rated Brief Social Phobia Scale (BSPS; Davidson et al., 1991; Davidson, Miner, De Veaugh-Geiss, Tupler, & Potts, 1997) and the Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998). Anxiety symptoms were assessed using the trait version of the State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, Lushene, Vaag, & Jacobs,

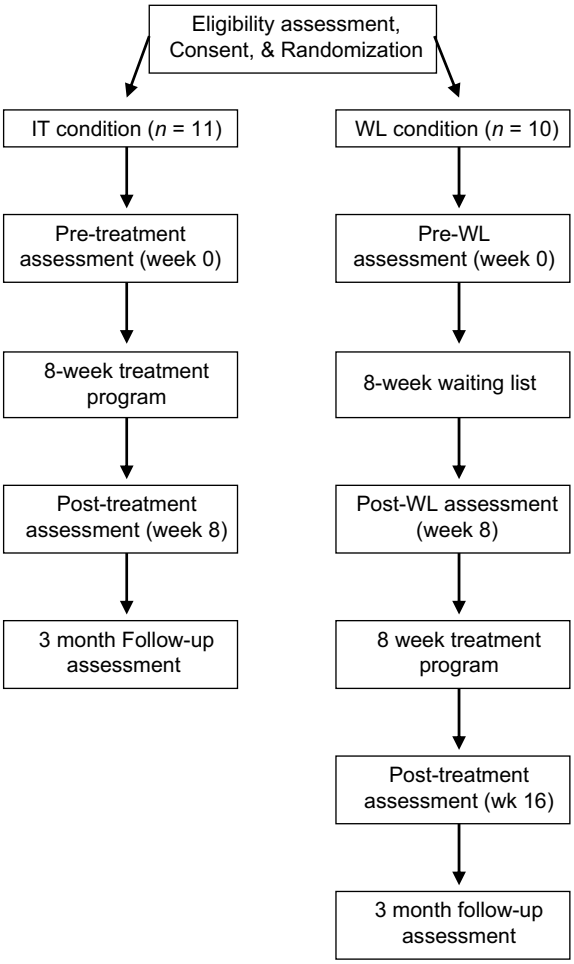

Fig. 1. Study design.

1983) and depressive symptoms, using the *Beck Depression Inventory* (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). The Clinical Global Impressions-Severity Scale (CGI-S; Guy, 1976) was used to provide an interviewer-rated index of global illness severity.

2.4. Procedure

Individuals who inquired about the study were screened by telephone. If they appeared to meet entry criteria, they were invited to undergo a diagnostic interview, which included the Mini International Neuropsychiatric Interview (MINI; Sheehan et al., 1998), BSPS, CGI-S, and the WRAT-3. Eligible, consenting individuals were randomly assigned to the IT or WL group and asked to complete the self-report measures described above. Two independent evaluators (IEs) administered all posttest and follow-up assessments. IEs were trained in the administration of the BSPS and CGI-S and completely blind to treatment condition and assessment time.

2.5. Treatment

Patients were provided with a copy of the SSAW free of charge. The 11 chapters in the workbook were divided into 5 sections to be read over the 8 weeks of therapy as shown in Table 1. At weeks 1, 2, 3, 6, and 8, a brief (<30 min) meeting with the therapist was held to review the chapters assigned for that particular week. No exposure or cognitive therapy took place; all CBT techniques were performed by the patient on his or her own. Questions for how to implement these techniques could be addressed in session, however. On weeks when no therapist contact was scheduled, a maximum 15-min telephone call was scheduled.

2.6. Treatment fidelity

Treatment for all patients proceeded according to the outline in Table 1. The same therapist (ELM) worked with each patient and used a manual (available from the authors) to guide each meeting. There was no video or audiotaping of sessions.

At posttest, patients provided ratings of how closely they adhered to the SSAW in conducting (a) non-exposure assignments (e.g., cognitive restructuring), and (b) exposure practice. Each of these ratings were made on a Likert scale from 1 (did no recommended assignments/never) to 7 (did all recommended assignments/everyday).

3. Results

3.1. Preliminary analyses

All patients completed the IT or WL phase and were assessed at pre and posttest; there were no drop-outs. *t*-Tests (or χ^2 tests) comparing the groups indicated no significant differences on sociodemographic or clinical variables at pretest, suggesting successful randomization.

Table 1
Timeline for completing *Shyness and Social Anxiety Workbook*

Week in treatment	Assigned workbook chapter
1	Chapters 1–3
2	Chapters 6 and 7
3	Chapters 8 and 9
4	Phone call
5	Phone call
6	Chapter 10
8	Chapter 11

3.2. Effects of treatment

3.2.1. Treatment versus wait-list

Means and standard deviations for the IT and WL groups at pre- and posttest appear in Table 2. ANOVAs indicated significant group by time interactions for the BSPS, $F(1, 19) = 4.47$, $p < 0.05$; SIAS, $F(1, 19) = 15.86$, $p < 0.01$; CGI-S, $F(1, 19) = 16.91$, $p < 0.05$; and BDI, $F(1, 19) = 9.03$, $p < 0.01$, but not for the STAI. Within-group analyses indicated significant pre- to posttest decreases (all $ps < 0.05$) for the IT group on all variables except the STAI. Effect sizes (see Table 3) calculated as the standardized pre- to posttest difference ($M_{pre} - M_{post}/SD_{pooled}$) show that treatment was associated with large effects on SP and depressive symptoms, and medium effects on global severity and general anxiety. As expected, none of the pre- and posttest comparisons for the WL group were significant; and effect sizes were accordingly small (SIAS, CGI, BDI) to medium (BSPS, STAI) in magnitude. Whereas there were no significant between-group differences at pretest, significant differences were found at posttest on the BSPS and CGI, with the IT group showing lower scores than the WL group ($p < 0.05$).

For the IT group, pretest to follow-up differences were significant for all outcome variables ($p < 0.05$). Moreover, posttest to follow-up contrasts indicated no significant changes ($p > 0.05$). Thus, on average, patients remained improved from the end of treatment through the 3-month follow-up assessment. Follow-up effect sizes appear in Table 3.

3.2.2. Delayed treatment condition

After the 8-week waiting period, the 10 patients in the WL group received the same treatment regimen as the IT group had received, although follow-up data from 3 patients could not be obtained. To conserve statistical power, we substituted mean scores from the remainder of the sample for these 3 patients. The means and standard deviations for these patients once they received their delayed treatment are presented in Table 2.

Repeated measures ANOVAs indicated significant decreases on all measures from pre- to posttest: BSPS, $F(1, 9) = 49.66$, $p < 0.001$; SIAS, $F(1, 9) = 28.68$, $p < 0.001$; CGI-S, $F(1, 9) = 31.15$, $p < 0.001$; STAI, $F(1, 9) = 64.81$, $p < 0.001$; and BDI, $F(1, 9) = 6.08$, $p < 0.05$. Moreover, similar analyses indicated significant decreases on all measures from pretest to follow-up (all $ps < 0.05$). There were no significant

Table 2
Means (standard deviations) on outcome variables at pretest, posttest and follow-up for the immediate treatment ($n = 11$), wait-list ($n = 10$), and delayed treatment ($n = 10$) conditions

Variable and condition	Pretest	Posttest	Three-month follow-up
BSPS			
Immediate treatment	33.18 (9.11)	21.72 (7.32)	18.67 (8.16)
Wait-list	32.20 (8.80)	28.60 (3.56)	
Delayed treatment	28.60 (3.56)	16.20 (6.68)	15.89 (5.25)
SIAS			
Immediate treatment	58.81 (12.44)	40.81 (16.34)	42.86 (17.01)
Wait-list	52.60 (10.29)	52.20 (12.74)	
Delayed treatment	52.20 (12.74)	34.20 (11.71)	34.63 (11.03)
CGI-S			
Immediate treatment	5.09 (1.04)	3.45 (0.93)	3.33 (1.41)
Wait-list	4.50 (0.53)	4.30 (0.67)	
Delayed treatment	4.30 (0.67)	3.00 (1.05)	2.89 (1.17)
STAI			
Immediate treatment	56.90 (8.64)	49.63 (13.72)	47.11 (9.52)
Wait-list	53.00 (5.05)	50.00 (5.89)	
Delayed treatment	50.00 (5.89)	39.7 (7.45)	40.33 (7.40)
BDI			
Immediate treatment	15.90 (6.42)	6.54 (4.22)	7.56 (4.42)
Wait-list	10.70 (7.16)	10.90 (6.27)	
Delayed treatment	10.90 (6.27)	4.30 (4.06)	4.67 (4.36)

BSPS = Brief Social Phobia Scale; SIAS = Social Interaction and Anxiety Inventory; CGI-S = Clinical Global Impression-Severity; Anxiety Sensitivity Index-3rd version social concerns subscale; STAI = State–Trait Anxiety Inventory-Trait version; BDI = Beck Depression Inventory.

Table 3
Effect sizes at posttest and follow-up

Variable	Pretest–posttest			Pretest–3-month follow-up	
	IT	WL	Delayed treatment	IT	Delayed treatment
BSPS	1.39	0.54	2.32	1.39	2.83
SIAS	1.24	0.03	0.74	1.07	0.79
CGI-S	0.65	0.33	1.48	1.42	1.49
STAI	0.63	0.55	1.82	1.08	1.45
BDI	1.72	0.03	1.25	1.51	1.15

BSPS = Brief Social Phobia Scale; SIAS = Social Interaction and Anxiety Inventory; CGI-S = Clinical Global Impression-Severity; STAI = State–Trait Anxiety Inventory-Trait Version; BDI = Beck Depression Inventory.

posttest to follow-up differences on any measures (all $ps > 0.05$), indicating that patients improved at posttest and maintained this improvement at follow-up. Effect sizes for the delayed treatment group at posttest and follow-up are presented in Table 3. As can be seen, treatment was associated with large effects that surpassed 1 standard deviation on all outcome measures except for the SIAS.

3.3. Clinically significant change

As indicated above, treatment gains were statistically highly significant on our primary measure of social anxiety—the BSPS. However, it is also important to show that treatment gains were *clinically* significant. We therefore conducted endstate functioning and reliable change analyses according to the methods specified by Jacobson and Truax (1991). Cut scores between functional and clinical distributions were determined using norms reported in the literature and the formula provided by Jacobson and Truax (1991). Clinically significant change was defined as having achieved both (a) endstate functioning within the functional distribution and (b) reliable change. Among the IT group, 27% of patients at posttest, and 36% at follow-up evidenced both of these criteria. Among the WL group, once treatment was received, 40% of patients at posttest, and 40% at follow-up met both of the criteria for clinically significant change.

3.4. Treatment adherence and outcome

The mean score for all participants on the adherence question pertaining to completion of non-exposure therapy assignments in the SSAW was 6.38 (SD = 0.80; range = 5–7), suggesting relatively good self-reported adherence. On the question assessing adherence to exposure assignments, the mean score was 5.85 (SD = 1.32; range = 2–7), also suggesting fairly good self-reported adherence with instructions for self-exposure practice.

To conserve power, we conducted correlations between scores on the adherence items and the outcome measures at posttest and follow-up using data from the entire sample of treated patients. Greater adherence with exposure tasks was associated with lower scores on the BSPS at follow-up, $r\,(18) = -0.68$, $p < 0.01$, and on the CGI-S at follow-up $r\,(18) = -0.70$, $p < 0.01$. This suggests that patients who reported at the end of treatment that they had adhered to the instructions to conduct exposure practice also had less severe social anxiety symptoms at follow-up.

4. Discussion

The present study examined the efficacy of an 8-week self-directed, minimal therapist contact treatment program for SP. The evaluation of CBT-based self-help resources for SP is important since many sufferers do not have access to CBT or choose not to pursue this treatment. Our hypothesis that patients would show improvement on measures of SP and related constructs over the treatment period received general support. In both the active treatment groups, statistically significant reductions in social anxiety, global severity, general anxiety, and depression were observed. Clinically significant

improvement, however, was observed in less than half of the patients at posttest and at follow-up. This suggests that whereas patients showed some improvement after using the SSPW, their level of symptom severity remained more representative of the population of individuals with SP, as opposed to the nonclinical population.

We benchmarked our BSPS scores to those obtained in studies of therapist-guided CBT for SP to examine how much our mode of delivering CBT attenuated treatment efficacy. Both groups' BSPS mean score after receiving treatment was similar to that reported in a large controlled trial of CBT (e.g., $M = 20.6$, $SD = 9.9$ in Davidson et al., 2004); although our pretest mean scores were somewhat lower than that reported in the Davidson et al. study ($M = 39.2$, $SD = 10.4$). Perhaps our less severe patient sample accounted for similarities in posttest scores. This would support recommending the SSAW with minimal therapist contact for patients with mild to moderate SP. Additional research is necessary to examine its effectiveness with severe samples.

Our prediction that that the SSAW program would produce superior results compared to wait-list received mixed support. We found group by time interactions on all measures except the STAI. With the exception of the BSPS and CGI, between-group differences on other outcome variables failed to reach statistical significance. The most likely explanation for this is insufficient statistical power as afforded by our somewhat small sample. Our hypothesis that patients would maintain improvement at follow-up also received mixed support. Significant pretest to follow-up differences, and large effect sizes, were found on all measures following treatment for both groups of patients.

In partial support of our hypothesis regarding treatment adherence, more adherence with situational exposure instructions predicted greater improvement in clinician-rated SP symptoms at follow-up, but not at posttest. This is consistent with research demonstrating that compliance with exposure homework assignments is related to treatment outcome (Leung & Heimberg, 1996). Although it might be tempting to conclude that performing more self-controlled exposure leads to greater reductions in social anxiety, an equally plausible explanation is that patients who evidence greater improvements are motivated to perform more exposure exercises.

The present study represents a first step in evaluating the effectiveness of a self-help workbook for SP. It appears that at least for milder forms of SP, the SSAW might be an effective self-help program, with adjunctive, infrequent therapist visits to reinforce the material. Patients following this treatment regimen should perhaps be informed that following through with instructions to complete situational exposures is related to better long-term outcomes. An important caveat with self-help treatment for SP, however, is that the usual social interactions inherent in working with a therapist are not present. Thus, patients might be encouraged to seek out therapist-guided exposure if they are unable to perform exposures on their own.

Although our findings are encouraging, they should be considered as preliminary due to the following limitations. First, despite the detection of a significant group by time interaction, our sample was small for a randomized trial. Second, although the therapist was to adhere to an outline for each of the 5 check-in sessions, no sessions were recorded or observed. Third, we did not obtain data on the reliability of the interview measures used in the study: the BSPS and CGI-S. Fourth, the representativeness of our sample is uncertain given the exclusions for severe depression, substance abuse/dependence, and prior CBT, and the fact that participants elected self-help, as opposed to face-to-face treatment. Specifically, our sample might have been more highly self-motivated and easier to help than individuals with social phobia at large. Future research addressing these limitations is necessary to determine how the average individual with SP would respond to this treatment regimen.

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