CME ACTIVITY

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CME Objectives

After completing this CME activity, the reader should be able to:

- Assess the use of cognitive-behavioral therapy (CBT) in group sessions for the treatment of panic disorder
- Compare this study's patient outcomes using group CBT to the use of CBT in the treatment of panic disorder
- Consider the effect comorbid substance abuse or dependence and severe personality disorders have on patient outcomes when group CBT is used in the treatment of panic disorder

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Neither Drs. Martinsen, Nyland, Aarre, Mr. Olsen, nor Mr. Tønset has significant relationships with entities that may have influenced the presentation in any way.

Discussion of Investigational Information

During the course of their talks and discussions in this *Journal*, faculty may be presenting investigational information about pharmaceutical agents that is outside Food and Drug Administration–approved labeling. This information is intended solely as continuing medical education and is not intended to promote off-label use of any of these medications. Please refer to page 442 for a list of indications of off-label usage describing any medication discussed in this enduring material that, in the authors' clinical estimation, is outside the manufacturer's current recommendations for standard prescribing practices.

Cognitive-Behavioral Group Therapy for Panic Disorder in the General Clinical Setting: A Naturalistic Study With 1-Year Follow-Up

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Background: Cognitive-behavioral therapy (CBT) is well documented in the treatment of panic disorder. As most investigators have studied selected patients without comorbid disorders, it is less clear how well the treatment will perform in the usual clinical setting for patients with comorbid disorders and with physicians who do not have training in CBT. During the last 6 years, we have offered CBT in outpatient groups for patients with panic disorder and agoraphobia. The purpose of this prospective study was to assess the outcome of group treatment and compare the results with those of studies that used individual treatment. We wanted to identify variables that might predict outcome at follow-up and to assess the number and characteristics of dropouts.

Method: Eighty-three consecutive patients with DSM-III-R panic disorder (56 women and 27 men; mean age = 34.5 years) were studied. Mean duration of panic disorder was 7.5 years. There was a high degree of comorbid major depression, social phobia, and psychoactive substance abuse/dependence. Treatment consisted of 4-hour group sessions conducted once a week for 11 weeks. More than half of the patients used antidepressant drugs. Degree of phobic avoidance, bodily sensations, anxiety cognitions, and depression were assessed at pretreatment, baseline, and end of treatment and at follow-up after 3 and 12 months.

Results: There was a large decrease in scores from start to end on all assessments. Sixty-three (89%) of 73 completers responded (≥ 50% reduction in Phobic Avoidance Rating Scale scores). Gains were maintained and even improved upon at follow-up. The results are comparable with studies that used individual therapy. A high depression score at the end of treatment predicted poor outcome at 1-year follow-up. Twelve (14%) of 83 did not complete the program. The presence of severe personality disorders and ongoing alcohol or substance abuse or dependence was associated with poor outcome and high dropout rate.

Conclusion: CBT appears to be effective in the usual clinical setting, even in the hands of therapists without formal competence. Group therapy is a feasible arrangement, and the results from group treatment are comparable to those of individual approaches. Precise diagnosis and treatment of comorbid depression are of utmost importance. Patients with additional substance abuse or dependence, as well as severe personality disorders, may find this treatment modality less helpful.

(J Clin Psychiatry 1998;59:437–442)

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Cognitive-behavioral therapy (CBT) is well established as an effective treatment for panic disorder with or without agoraphobia. CBT appears to be superior to relaxation techniques[1] and nondirective psychotherapies,[2,3] and equally as effective as antidepressant medication.[1,4] Gains made with CBT during treatment seem to be maintained during follow-up.[5–7] Although group treatments with CBT have been devised,[8,9] few studies have assessed treatment outcome of group therapy.

The most influential research on CBT has been conducted by eminent clinicians from centers that have specialized in this treatment modality. Most investigators have studied selected patients without comorbid disorders, and few trials have been undertaken in the usual clinical setting. It is less clear how well the treatment will perform in everyday practice and in the hands of clinicians not specifically trained for it.[10]

During the last 6 years, we have operated a CBT program in which patients with panic disorders have been treated in outpatient groups. The therapy has been conducted by clinicians not specifically trained in CBT. In this prospective, naturalistic study, we present the treatment outcome in this unselected sample of consecutively admitted panic disorder patients with a high degree of comorbid disorders. The aim of the present study was to assess the outcome of group treatment at the end of treatment and during follow-up and to compare the results with those of studies that used individual treatment. We wanted to identify pretreatment or posttreatment variables that might predict outcome at follow-up and to assess the number and characteristics of dropouts.

METHOD

Patients

Patients were recruited from 1988 to 1994 from a regional outpatient clinic serving a catchment area of

Table 1. Sociodemographic Characteristics of Patients Receiving Cognitive-Behavioral Group Therapy (N = 83)

Characteristic	Value
Age, y (mean ± SD)	34.5 ± 8.4
Females/males, N	56/27
Marital status, N	
Married	58
Divorced/widowed	8
Single	17
Occupation, N	
Employed	54
Receiving Social Security benefits	17
Other, not employed	12
Age at onset of anxiety disorder, y (mean ± SD)	27.0 ± 9.1
Years of duration of anxiety disorder, mean ± SD	7.5 ± 7.6
Previous psychiatric treatment, yes/no (N)	42/41
Medication at start of study, N[a]	
TCAs	38
SSRIs	9
Benzodiazepines	30
Lithium	5
Other	4

[a]Some patients took more than 1 medication.

Table 2. Pretreatment Diagnoses of Patients Receiving Cognitive-Behavioral Group Therapy (N = 83)

DSM-III-R Axis I Diagnosis	N
Panic disorder	83
With agoraphobia	76
Without agoraphobia	7
Comorbid disorders	
Social phobia	19
Obsessive-compulsive disorder	7
Major depression	24
Bipolar disorder	4
Alcohol/substance abuse/dependence	12

35,000 people. All patients were referred from doctors in primary care or at somatic departments. The treatment team received all referrals with a probable diagnosis of panic disorder. Those patients who met DSM-III-R criteria for panic disorder with or without agoraphobia, and did not meet criteria for psychotic disorders or posttraumatic stress disorder, were asked to take part in group treatment.

Eighty-three patients (56 women, mean ± SD age = 33.3 ± 8.0 years; and 27 men, mean ± SD age = 37.1 ± 9.2 years) were included. Demographic characteristics and diagnostic distribution are presented in Tables 1 and 2. Mean duration of panic disorder was 7.5 ± 7.6 years. Nearly half of the patients (41/83) had not previously received psychiatric treatment. There was a high degree of comorbid DSM-III-R major depression (29%), social phobia (23%), and psychoactive substance abuse/dependence (14%). More than half of the patients used antidepressants at the start of the study. Many had received antidepressants from their primary care physician, especially after the selective serotonin reuptake inhibitors (SSRIs) had been introduced. More than half of the patients used cyclic antidepressants, while 30 (36%) used benzodiazepines when treatment started.

Treatment

Patients were treated in groups comprising 6 to 10 patients each. The groups met for 11 weekly 4-hour sessions. The families or significant others took part in 1 of the sessions. All group sessions were conducted by the same social worker (T.O.) assisted by various co-therapists who were either registered psychiatric nurses or registrars (E.T., K.E.N., and T.F.A., among others). The Head of the Psychiatric Department (E.W.M.) twice gave lectures to each group on anxiety disorders and their treatment. He also supervised the therapists weekly. Neither the supervisor nor the therapists had received formal training in CBT.

At the pretreatment visit, the patients were given a brief outline of the treatment, explaining the rationale for exposure and cognitive restructuring. All patients who met the criteria for major depression during the pretreatment visit were presented antidepressants if not already on medication; however, patients who did not meet these criteria were not prescribed additional antidepressants at the start of the study. Our protocol was to try group CBT treatment for about 6 weeks. Patients still having repetitive panic attacks at that point, with little tendency toward improvement, were defined as refractory to psychosocial interventions alone and treated with antidepressants. This was true for 5 patients. Benzodiazepines were tapered and stopped within the first weeks of treatment. Patients were encouraged not to use alcohol while in therapy.

In the groups comprising the first 38 patients, therapy focused mainly on exposure to feared situations or stimuli. In subsequent groups, cognitive therapy[11] became an increasingly important part of the therapy. When cognitive therapy procedures were added, the time allocated to pure exposure at the hospital was reduced, as the treatment time at the hospital was held constant. During the homework that group members had to complete, however, the amount of exposure was held relatively constant.

Initial sessions were devoted to psychoeducation with special emphasis on the connection between perceived threat, somatic symptoms of arousal, automatic thoughts, and anxious feelings. The physiologic symptoms of sympathetic discharge were examined in detail, as were the feelings of disaster associated with each of the somatic symptoms. The patients were helped to recognize their own vicious cycles of symptoms, thoughts, and feelings

and learned to rate their anxiety on a 0–10 (0 = absent, 10 = full panic) scale. The use of diaries was introduced for recording anxiety ratings, noting daily homework assignments, discussing dysfunctional thoughts, and personal monitoring of gains made in therapy. Patients were repeatedly encouraged to use these diaries systematically.

Later sessions typically consisted of 4 modules:

1. Review of homework including anxiety ratings during exposure and discussion of somatic symptoms, dysfunctional thoughts, and coping strategies
2. Planning, performing, and reviewing the day's in vivo exposure at downtown locations, such as attending public offices, riding the omnibus, shopping, walking the streets, or going to a café
3. Review of the progress made and recapitulation of cognitive theory
4. Assigning daily homework for the week to come

The therapists made special efforts to reveal covert avoidance during exposure, e.g., distraction and muscular tension while in a feared situation. The patients were encouraged to comment freely on the others' performance, share experiences, and bring forth topics for discussion.

Assessments

Patients were scored on the Phobic Avoidance Rating Scale (PARS),[12] a 13-item observer-rated scale that measures degree of avoidance. Each item is scored on a 5-point scale, where 0 represents no avoidance and 4 indicates total avoidance of the situation in question. A 50% reduction in PARS total score from start to 1-year follow-up was defined a priori as the primary criterion of response to treatment.[3] Reduced avoidance of this magnitude will be readily recognized as clinically significant by both patient and therapist. The scale comprises 3 subscales: separation, social, and simple phobias.

The following symptoms were assessed by self-rating scales as follows: level of depression was assessed by the Beck Depression Inventory (BDI)[13]; degree of catastrophic interpretation of somatic symptoms was assessed by the Body Sensations Questionnaire (BSQ)[14]; fear of fear was measured by the Agoraphobic Cognitions Questionnaire (ACQ)[14] and Agoraphobic Cognitions Scale (ACS)[15]; and degree of phobic avoidance was measured by the Mobility Inventory for Agoraphobia (MIA),[16] with subscales of avoidance alone and accompanied. All ratings were performed at the pretreatment visits, first and last treatment sessions, and at follow-up after 3 months and 1 year. Unfortunately, frequency of panic attacks was not routinely recorded.

Complete data sets obtained at start and end of treatment are available for all patients who did not drop out of the treatment program. Eight attended follow-up after 3 months, but not after 1 year. For these 8 patients, the 3-month assessments were carried forward. Because scores tended to drop from follow-up at 3 months to follow-up at 1 year, this was considered to be a conservative adjustment. One patient did not attend follow-up visits at 3 months and 1 year, but attended a follow-up after 2 years. For this patient, we have used the 2-year values as 1-year values. With these adjustments, we have complete data sets.

Design

This was a prospective study, without a control group. The time from pretreatment visit to the start of the treatment, usually about 2 months, served as a no-treatment control condition.

Statistics

Statistical analyses were performed by Medstat A/S using the Number Cruncher Statistical System, Version 5.05.[17] T tests, chi-square tests, and multiple regression analysis were used. Level of significance was set to .05 unless otherwise stated.

RESULTS

Of the 83 patients who began the treatment program, 71 completed group treatment.

Outcome

Mean scores on all instruments increased from the pretreatment visit to the start of the treatment. There was a significant decrease in mean scores from start to end of treatment ($p < .05$ for all). Gains were maintained and even improved upon at follow-ups after 3 months and 1 year (Table 3). The same trend was seen on all instruments, but the largest reductions in scores were seen on the PARS (Figure 1) and the BDI. Patients with comorbid major depression had no poorer outcome than those without concomitant depression.

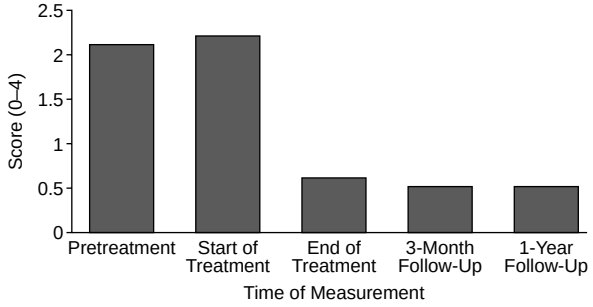
On all measures except the PARS, there was a nonsignificant tendency for larger reduction in scores among patients who had participated in the last groups (N = 33), which focused more on cognitive therapy. On the PARS, there was a nonsignificant tendency for larger reductions among patients in the earlier groups, which focused more on exposure alone ($p > .05$). On the basis of the criterion of a 50% reduction in PARS total score from start to

Table 3. Mean ± SD Rating Scale Scores for Completers (N = 71) Obtained Before, During, and After Cognitive-Behavioral Group Therapy*

	Pretreatment		Start of Treatment		End of Treatment		3-Month Follow-up		1-Year Follow-up	
Rating Scale	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
PARS total	2.1	1.1	2.2	1.1	0.6	0.7	0.5	0.5	0.5	0.7
PARS-sep	1.7	9.2	1.9	1.0	0.4	0.5	0.4	0.8	0.3	0.6
PARS-soc	1.6	1.1	1.7	1.1	0.3	0.6	0.4	0.8	0.4	0.7
PARS-simp	1.1	0.9	1.2	0.9	0.5	0.6	0.4	0.5	0.4	0.5
MI-AAC	72.2	27.8	75.8	27.8	44.1	17.9	40.0	16.4	41.6	18.4
MI-AAL	55.2	21.0	58.1	19.6	36.3	12.2	36.1	11.9	34.0	11.2
ACQ	36.8	9.0	39.4	10.4	28.9	9.5	26.4	9.0	24.1	7.2
ACS	21.4	7.6	23.5	7.7	11.2	8.1	11.2	8.1	9.2	7.0
BSQ	47.7	13.4	49.3	13.0	32.8	11.1	32.5	12.4	30.4	12.1
BDI	16.2	7.8	16.1	8.0	6.0	4.9	6.5	7.7	6.6	7.8

*Abbreviations: ACQ = Anxiety Cognitions Questionnaire; ACS = Agoraphobic Cognitions Scale; BDI = Beck Depression Inventory; BSQ = Body Sensations Questionnaire; MI-AAC = Mobility Inventory for Agoraphobia, avoidance accompanied; MI-AAL = Mobility Inventory for Agoraphobia, avoidance alone; PARS = Phobic Avoidance Rating Scale; PARS-sep = PARS separation subscale; PARS-simp = PARS simple phobias subscale; PARS-soc = PARS social subscale. A significant decrease in scores from start to end of treatment (paired t tests, $p < .05$) was seen for all rating scales.

Figure 1. Mean PARS Scores for Completers (N = 71) Obtained Before, During, and After Cognitive-Behavioral Group Therapy



1-year follow-up, 63 (89%) of 71 patients who completed the program responded (76% of the 83 patients who began treatment).

Prediction of Outcome

The PARS score at 1-year follow-up was defined as the outcome measure. In order to identify independent predictors for outcome, multivariate linear regression analysis with backward variable selection was applied. Start and end scores of BDI, BSQ, ACS, ACQ, MIA, and PARS entered the model. All of these variables, except end score of BDI, were excluded from the model because they were not significantly related to outcome. High BDI score at the end of the treatment predicted high PARS score at follow-up (estimate = 0.393, $p < .01$, SE = 0.120). From clinical judgment, ongoing substance abuse or dependence and the presence of severe personality disorders were associated with poor outcome.

Dropouts

Twelve patients (14%) did not complete the 11-week treatment program. Two were pregnant and had problems walking because of low back pain. Five (42%) of 12 patients with persistent alcohol or substance abuse or dependence dropped out. Four patients dropped out because of low frustration tolerance and lack of motivation for the treatment; 3 of these met DSM-III-R criteria for borderline personality disorder. Eight patients with this disorder were included; 3 (38%) dropped out. One patient developed psychotic mania and had to be hospitalized during the treatment program.

Both the oldest (67 years) and youngest (17 years) patients dropped out. Mean number of dropouts per group was 1, and the largest number of dropouts in any group was 3. In 5 groups, all patients completed the program. Most patients who did not complete dropped out early. No significant differences were found between completers and dropouts on sociodemographic variables, diagnostic distribution, psychological assessments, or use of medication.

DISCUSSION

During the comprehensive treatment program, scores on all measures were substantially reduced. The largest reduction was seen in phobic avoidance and depression. There was a tendency for continued improvement during the follow-up period. Eighty-nine percent of those who completed, and 76% of all who were included, could be classified as responders using our a priori response criterion of a 50% reduction in PARS total score. A high depression score at the end of treatment predicted poor outcome. Fourteen percent did not complete the program, and substance abuse/dependence and presence of severe personality disorders were associated with high dropout rates.

The response rate of 76% (89% for completers) is satisfactory and compares well with the findings of other studies on individual as well as group therapy.[1,2,8,9] Thus, the promising results from studies on selected patients without comorbid psychiatric disorders also seem to be relevant for our sample of consecutive patients from the daily clinical setting. In the study by Hoffart and

Martinsen,[3] which also used the PARS and the same definition of response as our study, 59% of all inpatients responded to treatment. One factor that may explain the difference in outcome was the use of medication; only 12% of the patients used antidepressants in the Hoffart and Martinsen study, compared with over 50% of patients in our study. The overall dropout rate of 14% is acceptable in this comparatively unselected sample and compares well with the 0% to 20% dropout rate commonly reported.[1,2,4,18]

Clark et al.[1] were able to demonstrate that reduction in scores on cognitive measures during treatment predicted favorable outcome at follow-up. We were not able to replicate this finding. There may be several reasons for this: Clark and colleagues treated patients without comorbid psychiatric disorders and without severe agoraphobic avoidance, and they used cognitive therapy alone. We studied patients with comorbid psychiatric disorders, and cognitive therapy was only 1 of the therapeutic elements. In the present study, only posttreatment BDI score predicted outcome. This corresponds well with the findings of Bowen et al.[19] and illustrates the importance of recognizing and treating depression adequately. Our clinical impression, that the presence of severe personality disorders was associated with poor outcome, is also supported in the literature.[20]

The study included no formal control group, but the time from pretreatment visit to start of the treatment may be viewed as a no-treatment control condition. The increase in scores from pretreatment to start of treatment strongly indicates that spontaneous remission is not the usual course of panic disorder and agoraphobia. The increase may also reflect heightened awareness of avoidance and cognitions, due to repeated detailed questioning, and fear of the exposure treatment to come. In this quality control study, the PARS was not scored blindly, and observer bias cannot be excluded. The same trend of increase in scores from pretreatment to start of treatment was seen with self-report instruments, however, supporting the validity of ratings.

Group treatment offers a low-cost alternative to individual therapy and enables therapists to treat more patients. Specific group effects, such as support and encouragement from peers, seem beneficial once the initial shame and embarrassment are overcome, usually during the first sessions. From a group dynamics' perspective, it is important that all patients have problems or characteristics in common with at least 1 other group member. If, for instance, only 1 patient in a group had an alcohol problem, or 1 patient was much younger or older than the others, such a patient would be more likely to drop out. Some of our dropouts may be explained because of this. From the therapists' perspective, group treatment is welcome, as interactions between group members and their joint responsibility relieve the therapists of some of the burden. A family day was appreciated by patients as well as family members. The clinicians found the systematic use of evaluation instruments useful. Although such use entailed extra work, it improved the precision of diagnostic and clinical assessments. The data analysis gave important feedback regarding the quality of the clinical work.

To our knowledge, this is the first naturalistic study of CBT for panic disorder and agoraphobia in unselected patients in the general clinical setting. Surveys of patients with panic disorder with agoraphobia indicate that the majority of these patients do not receive effective treatment.[10] The results of the present study indicate that effective psychosocial treatment modalities for panic disorder may be utilized successfully in the general clinical setting. This corresponds well with the literature. Promising results are reported following individual CBT administered by minimally trained therapists of pharmacologic[18] or psychotherapeutic[21] orientation; in addition, 1-session treatment may have lasting effect.[22]

In conclusion, CBT seems to be effective in the usual clinical setting, even in the hands of therapists without formal competence. Group therapy is a feasible arrangement, and the results from group treatment are no worse than those of individual approaches. Precise diagnosis and treatment of comorbid depression are of utmost importance. Patients with additional substance abuse or dependence, as well as severe personality disorders, may find this treatment modality less helpful.

REFERENCES

1. Clark DM, Salkovskis PM, Hackmann A, et al. A comparison of cognitive therapy, applied relaxation and imipramine in the treatment of panic disorder. Br J Psychiatry 1994;164:759–769
2. Beck AT, Sokol L, Clark DA, et al. A crossover study of focused cognitive therapy for panic disorder. Am J Psychiatry 1992;149:778–783
3. Hoffart A, Martinsen EW. Exposure-based integrated versus pure psychodynamic treatment of agoraphobic inpatients. Psychotherapy 1990;27: 210–218
4. Marks IM, Swinson RP, Basoglu M, et al. Alprazolam and exposure alone and combined in panic disorder with agoraphobia: a controlled study in London and Toronto. Br J Psychiatry 1993;162:776–787
5. Rijken H, Kraaimaat F, de Ruiter C, et al. A follow-up study on short-term treatment of agoraphobia. Behav Res Ther 1992;30:63–66
6. Nagy LM, Krystal JH, Charney DS, et al. Long-term outcome of panic disorder after short-term imipramine and behavioral group treatment: 2.9-year naturalistic follow-up study. J Clin Psychopharmacol 1993;13: 16–24
7. Bruce TJ, Spiegel DA, Gregg SF, et al. Predictors of alprazolam discontinuation with and without cognitive behavior therapy in panic disorder. Am J Psychiatry 1995;152:1156–1160

8. Evans L, Holt C, Oei TPS. Long term follow-up of agoraphobics treated by brief intensive group cognitive behavioural therapy. Aust N Z J Psychiatry 1991;25:343–349
9. Telch MJ, Lucas JA, Schmidt NB, et al. Group cognitive-behavioral treatment of panic disorder. Behav Res Ther 1993;31:279–297
10. Barlow DH, Lehman C. Advances in the psychosocial treatment of anxiety disorders: implications for national health care. Arch Gen Psychiatry 1996;53:727–735
11. Salkovskis PM, Clark DM. Cognitive therapy for panic disorder. J Cogn Psychother 1991;5:215–226
12. Hoffart A, Friis S, Martinsen EW. The Phobic Avoidance Rating Scale: a psychometric evaluation of an interview-based scale. Psychiatr Dev 1989; 1:71–81
13. Beck AT, Ward CH, Mendelson M, et al. An inventory for measuring depression. Arch Gen Psychiatry 1961;4:561–571
14. Chambless DL, Caputo C, Bright P, et al. Assessment of fear of fear in agoraphobics: the Body Sensations Questionnaire and the Agoraphobic Cognitions Questionnaire. J Consult Clin Psychol 1984;52:1090–1097
15. Hoffart A, Friis S, Martinsen EW. Assessment of fear of fear among agoraphobic patients: the Agoraphobic Cognitions Scale. J Psychopathol Behav Assessment 1992;14:175–187
16. Chambless DL, Caputo C, Jasin SE, et al. The Mobility Inventory for Agoraphobia. Behav Res Ther 1985;23:35–44
17. Number Cruncher Statistical System, Version 5.03 5/90. Kaysville, Utah: Jerry L. Hintze; 1990
18. Welkowitz LA, Papp LA, Cloitre M, et al. Cognitive-behavior therapy for panic disorder delivered by psycho-pharmacologically oriented clinicians. J Nerv Ment Dis 1991;179:473–477
19. Bowen R, South M, Fisher D, et al. Depression, mastery and number of group sessions attended predict outcome of patients with panic and agoraphobia in a behavioural/medication program. Can J Psychiatry 1994;39: 283–288
20. Black DW, Wesner RB, Gabel J, et al. Predictors of short-term treatment response in 66 patients with panic disorder. J Affect Disord 1994;30: 233–241
21. Camenietzki S. A psychotherapist engages in behaviour therapy. Can J Psychiatry 1991;36:492–496
22. Swinson RP, Soulios C, Cox BJ, et al. Brief treatment of emergency room patients with panic attacks. Am J Psychiatry 1992;149:944–946

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Instructions

Psychiatrists may receive 1 hour of Category 1 credit toward the American Medical Association Physician's Recognition Award by reading the article starting on page 437 and correctly answering at least 70% of the questions in the posttest that follows.

1. Read each question carefully and circle the correct corresponding answer on the Registration form.
2. Type or print your full name, address, phone number, and fax number in the spaces provided.
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1. In this study, initial cognitive therapy sessions were devoted to psychoeducation with special emphasis on connection between all of the following *except:*
   a. Perceived threat
   b. Somatic symptoms of arousal
   c. Perceived relative safety
   d. Automatic thoughts
   e. Anxious feelings

2. Patients were helped to recognize their own vicious cycles of symptoms, thoughts, and feelings and learned to rate their anxiety on _____ scale.
   a. A 0–10 rating
   b. An interval
   c. An Agoraphobic Cognitions
   d. A Phobic Avoidance Rating
   e. A Defensive Functioning

3. In this study, which of the following modules were used in later CBT sessions?
   a. Review of homework including anxiety ratings during exposure and discussion of somatic symptoms, dysfunctional thoughts, and coping strategies
   b. Planning, performing, and reviewing the day's in vivo exposure at downtown locations, such as attending public offices, riding the omnibus, shopping, walking the streets, or going to a cafe
   c. Review of the progress made and recapitulation of cognitive theory
   d. Answers a, b, and c
   e. Answers a and c

4. During the comprehensive treatment program, scores on all measures were substantially reduced. The largest reduction was seen in:
   a. Phobic avoidance
   b. Agoraphobia
   c. Depression
   d. Personality disorders
   e. Answers a and c

5. A high depression score at the end of treatment predicted:
   a. Poor outcome
   b. Severe agoraphobia
   c. Improvement during follow-up
   d. Borderline personality disorder
   e. Answers b and d

6. High dropout rates were associated with:
   a. Substance abuse/dependence
   b. Presence of severe personality disorder
   c. Severe agoraphobia
   d. Answers a and b
   e. Answers b and c

7. The use of group CBT requires precise diagnosis and treatment of:
   a. Comorbid personality disorders
   b. Comorbid substance abuse
   c. Comorbid depression
   d. Severe agoraphobia
   e. None of the above

Answers to the February 1998 CME posttest

1. e 2. e 3. d 4. b 5. d 6. d 7. e

Circle the one correct answer for each question.

1.	a	b	c	d	e
2.	a	b	c	d	e
3.	a	b	c	d	e
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5.	a	b	c	d	e
6.	a	b	c	d	e
7.	a	b	c	d	e

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   B. Enabled me to compare this study's patient outcomes using group CBT to the use of CBT in the treatment of panic disorder. ❑ Yes ❑ No
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