Available online at www.sciencedirect.com

ScienceDirect

Behavior Therapy 45 (2014) 36–46

Behavior Therapy

www.elsevier.com/locate/bt

Clinical Experiences in Using Cognitive-Behavior Therapy to Treat Panic Disorder

Abraham W. Wolf
Case Western Reserve University

Marvin R. Goldfried
Stony Brook University

Although there is a growing body of research to support the use of psychological treatments for specific disorders, there has been no way for practitioners to provide feedback to researchers on the barriers they encounter in implementing these treatments in their day-to-day clinical work. In order to provide practitioners a means to give researchers information about their clinical experience, the Society of Clinical Psychology and the Division of Psychotherapy of the American Psychological Association collaborated on an initiative to build a two-way bridge between practice and research. A questionnaire was developed on the therapist, patient, and contextual variables that undermine the effective use of CBT in reducing the symptoms of panic disorder, a clinical problem that occurs frequently in clinical practice and has an extensive research base. An Internet-based survey was advertised internationally in listservs and professional newsletters, asking clinicians to indicate all aspects of CBT that they used in treating panic disorder, and to respond to a series of questions with variables that presumably limited successful symptom reduction in clinical work using CBT to treat panic disorder. The final database included responses from 338 participants who varied in experience in applying CBT to the treatment of panic disorders. Participants identified a wide range of patient factors that were barriers to symptom reduction, including symptoms related to panic, motivation, social system, and the psychotherapy relationship, in addition to specific problems with implementing CBT for the treatment of panic disorder.

Keywords: empirically supported treatment; evidence-based treatment; panic disorder; therapeutic alliance; motivational interviewing

PANIC DISORDER, WHICH CAN BE SERIOUSLY DISABLING by virtue of the distress involved as well as the possibility of agoraphobic avoidance limiting one's functioning, is one of the more frequent anxiety disorders one is likely to encounter clinically. According to findings from the National Comorbidity Survey, panic disorder has a lifetime prevalence of 3.5%, and is twice as likely to occur among women as men (Eaton, Kessler, Wittchen, & Magee, 1994). Panic attacks themselves are readily diagnosable and are characterized by a sudden and intense fear that involves both physiological and subjective symptoms, including increased heart rate, sweating, chest pains, dizziness, palpitations, as well as fears of going crazy, losing control, and dying. This can often result in fear-related behavioral avoidance, such as the fear of crowded places, the use of public transportation, being home alone, and fear of traveling. Because the symptoms often occur "out of the blue," the unexpected and seemingly uncontrollable nature of this severe physical and emotional reaction—as well as the fear that something life-threatening may be occurring—can in and of itself enhance the distress.

Notwithstanding the highly distressing and impairing nature of panic disorder, we have nonetheless been able to develop interventions over the past few decades that have shown to be efficacious (Mitte, 2005; Westen & Morrison, 2001). Much of

Address correspondence to Abraham W. Wolf, Ph.D., 31050 Gates Mills Blvd, Pepper Pike, OH 44124.; e-mail: axw7@cwru.edu.

0005-7894/45/36–46/$1.00/0

the work on developing treatment procedures began in the early 1980s and was derived from direct clinical experience, which may be thought of as the context of discovery (e.g., Chambless & Goldstein, 1982; Fishman, 1980). For example, the work of Fishman in 1980 presented the field with a treatment package to deal with agoraphobia, which had been the primary diagnosis at the time, with panic existing as a secondary symptomatology. Based on his years of practice with cognitive-behavior therapy, Fishman developed a multifaceted intervention to deal with the symptoms of agoraphobia, panic, and anxiety, which consisted of applied relaxation, breathing retraining, prolonged imaginal exposure, interoceptive exposure, and in vivo behavioral exposure to deal with the agoraphobic avoidance. Depending on the individual case at hand, other cognitive-behavioral interventions were used as well, such as assertiveness training and encouragement of independent functioning.

Although there are some variations among cognitive-behavior therapists regarding how to intervene with panic, most approaches involve a common set of procedures. It typically begins with a psychoeducational phase, which helps the patient better understand and become less fearful of what they are experiencing physiologically and emotionally. They are then encouraged to self-monitor those situations in which they experience panic attacks, and eventually learn to cope with them, either with or without breathing retraining and relaxation. A good deal of emphasis is placed on cognitive restructuring, whereby catastrophic interpretations of bodily sensations are placed within a normal context of heightened arousal, and not a signal of an impending serious crisis. Some therapists make use of interoceptive exposure, whereby patients are encouraged to create the symptoms they experience during panic attacks during the session by means of exercise or hyperventilation. In addition to viewing interoceptive exposure as a means of desensitizing patients, it may also serve the function of providing them with experiences that can correct their conceptualization of panic as "coming out of the blue" and being uncontrollable. Moreover, with the use of slow, deep breathing and/or applied relaxation, patients can also learn that they can reduce these symptoms. To the extent that there is agoraphobic avoidance, graduated exposure is used as well, the goal being to encourage such avoided behaviors as traveling, the use of public transportation, being away from home, or being alone.

The results of randomized clinical trials (RCTs) in using CBT to treat panic have been very encouraging. For example, meta-analyses have found effect sizes to range from .90 to 1.55 (Mitte, 2005; Westen & Morrison, 2001). Findings have also revealed that somewhere between 70% and 80% of individuals undergoing CBT for panic disorder are able to achieve significant symptom reduction (Craske & Barlow, 2008). Despite these favorable results, there remain several factors that undermine the efficacy of the treatment.

For example, although research findings have indicated meaningful reductions in symptomatology, not all patients are panic free. Indeed, it has been found that roughly 50% remain somewhat symptomatic at the end of treatment (Arch & Craske, 2011). In treating panic disorder with agoraphobia, the average dropout rate has been found to be 19%, with a range between 0% and 54%. Longitudinal studies have found a relatively high recurrence rate of symptomatology (Arch & Craske). Moreover, the question of the extent to which the findings from RCTs are able to generalize to clinical settings has been questioned. As noted by Craske and Barlow (2008):

> Most of the outcome studies to date are conducted in university or research settings, with select samples (although fewer exclusionary criteria are used in more recent studies). Consequently, of major concern is the degree to which these treatment methods and outcomes are transportable to nonresearch settings, with more severe or otherwise different populations and with less experienced or trained clinicians. (Craske & Barlow, 2008, p. 33)

The issue of whether empirically supported treatments derived from RCTs can generalize to actual clinical settings has been much debated (e.g., Goldfried & Wolfe, 1996, 1998). In an attempt to delineate those treatments having a stronger empirical foundation, the American Psychological Association Division of Clinical Psychology Task Force on Promotion and Dissemination of Psychological Procedures (1995) was formed "to consider methods for educating clinical psychologists, third party payers, and the public about effective psychotherapies" (p. 3). After reviewing the outcome research literature, the task force came up with a list of "empirically validated" treatments, which was later referred to as "empirically supported" treatments.

As a result of the lively controversy over empirically supported treatments in the literature, there has emerged a greater recognition that other forms of evidence can inform clinical practice. In broadening the concept of empirical evidence, the American Psychological Association Presidential Task Force on Evidence-Based Practice (2006) made it clear that RCTs represent only one approach to providing empirical evidence that can inform clinical practice. Findings from other forms of research, such as research on clinical disorders, client characteristics and contextual variables, therapist competence, basic research on psychological processes, as well

as the findings on the process of change, are all most relevant for the practicing clinician.

As we have noted earlier, clinical observation and experience may be thought of as providing us with the context of discovery—a setting in which important mediating and moderating variables in need of investigation may be found. The contribution of practicing clinicians can not only help us develop intervention methods that are subsequently investigated empirically, but can also help us fine-tune those empirically supported interventions so as to enhance their clinical effectiveness. Thus, Sanderson and Bruce (2007) surveyed a group of expert CBT therapists about what they observed to be associated with treatment-resistant panic disorder, finding such factors as noncompliance, secondary gains, and therapy relationship problems to play a role. Acknowledging the existence of our clinical limitations in the treatment of panic disorder, McCabe and Antony (2005) emphasized that this information can serve "to improve our current treatments and to further our understanding of the mechanisms underlying suboptimal response and relapse following treatment" (p. 2).

Another way to think about the need to obtain practitioners' feedback on how well an empirically supported treatment like CBT for panic disorder works in the actual clinical application is in terms of what happens after the Food and Drug Administration (FDA) has approved a drug for clinical use on the basis on randomized clinical trials. Once a drug is approved, a mechanism exists for providing feedback about how well it fares in the real clinical setting. Thus, practitioners can file incident reports to the FDA when they encounter problems in the use of any given drug in clinical practice.

As noted in Goldfried et al. (2014–this issue), such a mechanism has recently been developed within psychotherapy, whereby practitioners can readily provide the results of their clinical experiences to researchers. A collaborative effort between the Society of Clinical Psychology, Division 12 of the APA and Division 29 (the Division of Psychotherapy), this initiative is an attempt to build a two-way bridge between research and practice. Much has been said about the dissemination of research findings to the practicing clinician, and the assumption behind this initiative is to provide practicing therapists with a way of disseminating their clinical experiences in using empirically supported treatments to the research community—as well as to other practitioners.

Panic disorder was selected as the clinical problem on which to begin this two-way bridge initiative, as it is a clinical problem that has received favorable research evidence, one that occurs frequently in clinical practice and, although there has been extensive research to confirm its efficacy, there is still much that can be learned from clinicians treating such patients. Although all therapists who have experience with this clinical problem would have much to offer, we decided to focus on the only current intervention that is an empirically supported treatment: CBT. The survey was broadly conceived, asking respondents (a) to indicate all aspects of CBT that they used in treating panic disorder, (b) to respond to a series of questions with variables that presumably limited successful symptom reduction in clinical work using CBT to treat panic disorder, and (c) to provide identifying information.

Method

INSTRUMENTS

The following group of clinicians experienced in using CBT clinically participated in extensive 1-hour, open-ended interviews that were used to develop specific questionnaire items: Dianne Chambless, Steven Fishman, Joann Galst, Alan Goldstein, Steven Gordon, Steven Holland, Philip Levendusky, Barry Lubetkin, Charles Mansuto, Cory Newman, Bethany Teachman, Dina Vivian, and Barry Wolfe. Based on these interviews, a survey questionnaire was developed, which included items that reflected potential treatment, therapist, patient, and contextual variables that might undermine the successful use of CBT in reducing the symptoms of panic disorder. The survey asked clinicians to respond to the following classes of variables that they found to limit symptom reduction: (a) patient's symptoms related to panic; (b) other patient problems or characteristics; (c) patient expectations; (d) patient beliefs about panic; (e) patient motivation; (f) social system (home, work, other); (g) problems/limitations associated with the CBT intervention method; and (h) therapy relationship issues. A pilot version of the instrument was tested on a sample of cognitive behavioral therapists and graduate students in clinical psychology and their feedback was used to revise questionnaire items.

PROCEDURE

An Internet-based survey was advertised internationally on listservs and newsletters of professional organizations between December 2009 and December 2010 inviting practicing clinicians with experience in using CBT for the treatment of panic to respond. The request for participants was posted on the following listservs and Internet Web sites: Association for Behavioral and Cognitive Therapies, Society for Psychotherapy Research, Society for the Exploration of Psychotherapy Integration, and the American Psychological Association Society of Clinical Psychology (Division 12), the Society of Counseling Psychology (Division 17), the Division of

Psychotherapy (Division 29), and Psychologists in Independent Practice (Division 42). In addition, requests were made on several English-speaking listservs throughout the world (e.g., the United Kingdom, Canada, and Australia). The survey took approximately 10 minutes to complete. In addition to demographic information, educational background, and the nature of their clinical practice, respondents were asked about their clinical experiences in those areas specified above. Specifically, they were given the following instructions:

> ***Clinical Experiences in Conducting Empirically Supported Treatments: Panic Disorder***
> *Once a drug has been approved by the Federal Drug Administration (FDA) as a result of clinical trials, practitioners have the opportunity to offer feedback to the FDA on any shortcomings in the use of the drug in clinical practice. The Society of Clinical Psychology, Division 12 of the American Psychological Association, is in the process of establishing a mechanism whereby practicing psychotherapists can report their clinical experiences using empirically supported treatments (ESTs).*
> *This is not only an opportunity for clinicians to share their experiences with other therapists, but also to offer information that can encourage researchers to investigate ways of overcoming these limitations. We are starting with the treatment of panic disorder, but will extend our efforts to the treatment of other problems at a later time. This questionnaire provides the opportunity for therapists using cognitive-behavior therapy (CBT) in treating panic to share their clinical experiences about those variables they have found to limit the successful reduction of symptomatology. Although research is underway to determine if other therapies can successfully treat panic, CBT is the only approach at present that is an EST. However, in order for the field to move from an EST to an evidence-based treatment that works well in practice settings, we need to know more about the clinical experience of therapists who make use of these supported interventions in actual clinical practice. By identifying the obstacles to successful treatment, we can then take steps to overcome these shortcomings.*
> *Your responses, which will be anonymous, will be tallied with those of other therapists and posted on the Division 12 Web site at a later time—with links made to it from other relevant Web sites. The results of the feedback we receive from clinicians will be provided to researchers, in the hope they can investigate ways of overcoming these obstacles.*
> *It should take you only 10 minutes to complete this.*

PARTICIPANTS

A total of 439 participants responded to the Internet survey. The survey was organized so that respondents were first queried about content areas and then about demographic information. The final database included responses from 338 participants who completed the entire survey, including demographic information regarding gender, age, and ethnicity, in addition to information on their education, training, and experience. (Subsequent interviews in this research program first queried respondents about demographic information and then on content areas. This sequencing allowed those studies to compare respondents who completed the interview from those who did not on demographic variables. Since this survey queried for demographic information at the end of the interview, noncompleters were defined as those who failed to provide demographic information.)

The percent of individuals who endorsed at least one item in each content area question ranged from 58% for the question about the therapeutic alliance to 100% on most demographic variables. Since the response rate for the questions was over 90%, the low response rate to the question regarding the therapeutic alliance may mean that respondents did not see the alliance as a problematic issue.

Participants' median age was 45 years (range 25 to 81 years), 52% were female, and 86% were Caucasian. Most respondents had a Ph.D. in clinical psychology (56%), and many obtained CBT training in graduate school (65%), internship (39%), postdoctoral experience (38%), or peer supervision (27%), although others were self-taught through books, journals, or videos (59%), or trained in workshops (47%). (Because participants may have obtained CBT training in more than one modality, percentages do not total 100%.) While most identified themselves as having a cognitive (42%) or behavioral (38%) orientation, individual participants also endorsed other theoretical orientations such as psychodynamic, experiential/humanistic, and family systems. The majority were employed in outpatient treatment centers (59%) and/or in private practices (54%). Information about respondents' level of education, experience practicing psychotherapy, and treating panic disorder is presented in Table 1.

Results

TECHNIQUES TYPICALLY USED IN CONDUCTING CBT FOR PANIC DISORDER

Table 2 lists the proportion of CBT techniques respondents endorsed to treat panic disorder. Most (84%–99%) indicated using patient education and cognitive restructuring or labeling of affect. A majority (54%–75%) indicated using behaviorally oriented techniques such as in vivo exposure, simulation of panic sensations, and relaxation, in addition to resolution of conflict situations and an understanding of developmental roots of panic. Finally, from 10% to 31% used specific forms of training to treat panic (e.g., assertiveness training, communication training).

BARRIERS TO TREATMENT PROGRESS DUE TO SYMPTOMS RELATED TO PANIC DISORDER

Table 3 reports the frequencies of responses to patient symptoms that limited symptom reduction.

Table 1
Therapist Education and Experience

	%	n
Highest degree completed		
Ph.D. in Clinical Psychology	56%	190
Ph.D. in Counseling Psychology	5%	17
Ph.D. in Educational Psychology	1%	4
Psy.D.	7%	24
Ed.D.	1%	2
Graduate Student	3%	11
MSW	1%	4
Master's in Clinical Psychology	6%	21
Master's in Counseling Psychology	5%	16
Master's in Psychology - Other	4%	14
Post Graduate Certificate in CBT	5%	16
M.D.	2%	8
RN	1%	2
Other	3%	9
Number of panic patients treated		
Less than 10	18%	59
10 to 20	17%	57
21 to 30	12%	40
31 to 40	9%	30
41 to 50	7%	24
51 to 100	14%	47
Over 100	23%	76
Years of experience conducting psychotherapy		
Less than 10	36%	120
10 to 20	28%	96
21 to 30	22%	75
31 to 40	10%	33
Over 40	3%	10

Table 2
Techniques Typically Used in Conducting CBT for Panic Disorder

	%	n
Psychoeducation about nature of panic	99%	333
Cognitive restructuring of general beliefs associated with panic	92%	312
Cognitive restructuring of feared outcomes associated with panic attacks	88%	339
Identification of emotional reactions to situations associated with panic	85%	228
Cognitive relabeling of sensations triggering panic	84%	285
In vivo exposure to travel, open spaces and other agoraphobic situations	75%	255
Breathing retraining	68%	228
Simulation of panic sensations within the session	65%	220
Resolution of stressful conflicts leading to panic e.g., relationships, work	57%	192
Relaxation training	54%	182
Helping patient understand developmental roots of fears	53%	178
Mindfulness	48%	161
Motivational enhancement	31%	103
Assertiveness training	25%	86
Communication training	18%	60
Independence training	10%	32

Table 3
Barriers to Treatment Progress Due to Symptoms Related to Panic Disorder

	%	n
Chronicity	57%	194
Tendency to dissociate	39%	132
Functional impairment travel, work, social	39%	130
Post-traumatic stress disorder	39%	133
Severity	36%	121
Fainting history	16%	55

The majority of respondents indicated the chronicity of the panic symptoms (57%), but also the severity of the symptoms (36%), and how the symptoms impaired the patient's ability to function at home or work (39%). Comorbid disorders such as posttraumatic stress disorder (39%), and symptoms such as the tendency to dissociate (39%) and a history of fainting (16%) were barriers to successful treatment.

BARRIERS TO TREATMENT PROGRESS DUE TO OTHER PATIENT CHARACTERISTICS

Table 4 reports responses to a list of patient characteristics that limit symptom reduction. Patients' lack of adherence to treatment in the form of inability to work between sessions (70%), unwillingness to give up safety behaviors (for example,

Table 4
Barriers to Treatment Progress Due to Other Patient Characteristics

	%	n
Inability to work independently between sessions	70%	235
Unwillingness to give up safety behaviors e.g., objects/people believed to prevent panic	63%	214
Personality disorders	55%	186
Chaotic life style	55%	186
Reliance on psychotropic medication	52%	175
Substance abuse	49%	165
Premorbid functioning is limited	46%	157
Fear of exposure and associated emotional reactions	46%	156
Resistance to directiveness of treatment	37%	124
Intellectual/cognitive/introspective ability is limited	34%	116
Dependency/unassertiveness	33%	112
Depressed mood/mood disorder	32%	108
Perfectionistic/obsessive style	30%	100
Low self-esteem/self-efficacy	22%	73
Negative emotions not recognized	21%	71
Poor interpersonal skills	19%	64
Physical problems	16%	55
Low socioeconomic status	7%	23
Diversity issues associated with ethnicity/race/sexual orientation	3%	9

objects or people believed to prevent panic attacks; 63%), a reliance on psychotropic medication (52%), fear of exposure and associated emotional reactions (46%), and resistance to directedness of treatment (37%) were all reported to have interfered with the implementation of CBT. Comorbid disorders such as personality disorders (55%), substance abuse (49%), intellectual limitations (34%), and depressed mood and mood disorders (32%) similarly complicated treatment. Finally, patients' chaotic lifestyle (55%), limited premorbid functioning (46%), and personality characteristics such as dependency and endorsements of lack of assertiveness (33%) and a perfectionistic or obsessive style (30%) were identified as problematic.

BARRIERS TO TREATMENT PROGRESS DUE TO PATIENT EXPECTATIONS

Patients' unrealistic expectations about the process and outcome of treatment mitigated the successful implementation of CBT. Frequencies of participants' endorsements as reported in Table 5 indicate that patients expected that they would be free of all anxiety following treatment (54%), successful exposure would mean not having any panic or anxiety (41%), and that more than reduction of panic symptoms was needed in treatment (20%). In addition, patients' beliefs that therapists would do all the work to make things better (53%), disappointments with past therapists (33%), and expecting that treatment would be brief and easy (28%) were problems. Patients' beliefs that they need medication to reduce panic (49%) also interfered with CBT. Finally, 20% of respondents indicated that their patients believed that reduction of panic symptoms was not enough.

BARRIERS TO TREATMENT PROGRESS DUE TO PATIENT BELIEFS

Patients' beliefs about their panic symptoms also interfered with CBT's ability to reduce symptoms. Table 6 reports that many respondents indicated that their patients believed their fears were realistic, for example, that they may really have a heart attack (57%), that their problems were due to external factors (40%), and that being anxious was abnormal and dangerous (38%). Problematic patient beliefs also included the notion that panic was biologically based (26%) and that symptom reduction could have a negative impact on their relationships (12%).

Table 5
Barriers to Treatment Progress Due to Patient Expectations

	%	n
They will be free of all anxiety	54%	184
Therapist will do all the work to make things better	53%	179
They need medication to reduce panic	49%	164
Successful exposure means not having panic/anxiety	41%	139
Pessimism due to disappointment with past therapy	33%	110
Treatment will be brief and easy	28%	94
Symptom reduction is not enough	20%	67

Table 6
Barriers to Treatment Progress Due to Patient Beliefs

	%	n
Belief that their fears are realistic (e.g., they may have a heart attack)	57%	193
Their problems are due to external factors (e.g., situation, other people)	40%	135
Being anxious is abnormal/dangerous	38%	128
Panic is biologically based	26%	88
Belief that symptom reduction will have negative impact on relationships	12%	39

BARRIERS TO TREATMENT PROGRESS DUE TO PATIENT MOTIVATION

Frequencies of responses associated with problems due to patient motivation are reported in Table 7, and indicate that premature termination (60%), minimal motivation at the beginning of treatment (60%), and decreased motivation with some symptom reduction (31%) all interfered with treatment.

BARRIERS TO TREATMENT PROGRESS DUE TO PATIENT'S SOCIAL SYSTEM

Table 8 reports elements in patients' social system that respondents identified as interfering with the effectiveness of CBT. Most respondents identified that patients' symptoms were reinforced and supported by their social network (61%) and that their patients were trapped in a dysfunctional environment (57%). Other mitigating factors included high levels of stress at home or work (48%), lack of family support for treatment (43%), social isolation (39%), and family members who were

Table 7
Barriers to Treatment Progress Due to Patient Motivation

	%	n
Premature termination	60%	203
Minimal motivation at outset	60%	202
Motivation decreased as some improvement occurs	31%	105
Motivation decreased when patient learns reasons for having panic	10%	33

Table 8
Barriers to Treatment Progress Due to Patient's Social System

	%	n
Symptoms/dependency is reinforced/supported	61%	205
Trapped in a dysfunctional home, work, or social situation	57%	194
Stress very high at home, work, or socially	48%	162
Family does not support treatment	43%	144
Social isolation of patient	39%	132
Family is controlling and critical	34%	116
Family members are very anxious	32%	107
Loss of family member, partner, employment	18%	62

controlling or critical (34%) or themselves very anxious (32%).

BARRIERS TO TREATMENT PROGRESS DUE TO PROBLEMS/LIMITATIONS ASSOCIATED WITH THE CBT INTERVENTION

Table 9 lists problems and limitations associated with CBT that respondents endorsed as limiting symptom reduction. These include patients' reluctance to eliminate safety behaviors (56%), logistical problems with in vivo exposure (44%), the fact that CBT does not offer guidelines for dealing with comorbid problems and symptoms (34%), and difficulty in simulating panic symptoms in session (33%). Respondents also identified how triggers to panic were not evident (27%), overly strict adherence to CBT protocols (26%), and how relaxation either does not work or causes anxiety (25%) as limiting CBT.

Table 9
Barriers to Treatment Progress Due to Problems/Limitations Associated With CBT Intervention

	%	n
Patient's reluctance to eliminate safety behaviors e.g. carrying meds, being with others	56%	189
Exposure in vivo has logistical problems	44%	150
Doesn't deal with comorbid problems/symptoms	34%	116
Simulating panic in session is difficult	33%	113
Triggers to panic not evident	27%	92
Strict adherence to CBT protocol	26%	87
Relaxation doesn't work or causes anxiety	25%	85
Absence of guidelines for dealing with resistance/ noncompliance	17%	58
Doesn't deal with patient's anger	16%	55
Doesn't deal with fear of interpersonal loss	14%	46
Triggers for panic are not linked to client's past history	10%	33
Doesn't deal with comprehensive or lasting change	9%	29
Current coping skills are not linked to past	7%	25

BARRIERS TO TREATMENT PROGRESS DUE TO THERAPY RELATIONSHIP ISSUES

Respondents were asked about factors in the therapy relationship that were barriers in implementing CBT, and their responses are summarized in Table 10. A little over one third of the respondents (36%) indicated that the therapy alliance was not strong enough, 33% reported that the patient did not feel that his/her distress was sufficiently understood or validated, 17% confessed that their own negative feelings toward the patient were problematic and that their frustration with progress interfered with symptom reduction.

OTHER SURVEY FINDINGS

Survey respondents reported an average success rate of 78% in reducing panic symptoms using CBT. Respondents also indicated that 55% of their patients were prescribed some form of psychotropic medication.

Discussion

This study is the first of a series of surveys that are part of a collaborative effort between Division 12 (Society of Clinical Psychology) and Division 29 (Psychotherapy) of the American Psychological Association, the goal of which is to build a two-way bridge between research and practice. In much the same way that the FDA has a mechanism for practicing physicians to provide feedback on the use of a clinically approved drug, the goal here is to obtain feedback from practicing therapists on their use of an empirically supported treatment for panic disorder. Having information on those mediating and moderating variables that may undermine the clinical effectiveness of an intervention provides important information on potential areas in need of research. Moreover, it also offers important information to clinicians about some of the limitations in using an empirically supported treatment in actual clinical practice.

This study focused solely on the use of CBT in the treatment of panic disorder, as at present it is the only intervention that clearly meets criteria for an empirically supported treatment. Although there is

Table 10
Barriers to Treatment Progress Due to Therapy Relationship Issues

	%	n
Therapy alliance not strong enough	36%	121
Patient doesn't feel his/her distress is sufficiently understood/validated	33%	111
Therapist's negative feelings toward patient	17%	57
Therapist's frustration with progress	17%	56

much to be said for the contributions of RCTs in determining the efficacy of CBT in treating panic disorder, the goal here is to learn about those variables that can further enhance clinical effectiveness. Indeed, Dimidjian and Hollon (2011) have argued that there is much to be learned by investigating those variables that contribute to clinical failure in the use of empirically supported treatments in actual practice—including such variables as client factors, treatment variables, intervention limitations, working alliance, and motivation. And while there is considerable evidence from RCTs for the efficacy of CBT in the treatment of panic disorder, there nonetheless is considerable room for clinical improvement (Arch & Craske, 2011; McCabe & Antony, 2005; Sanderson & Bruce, 2007).

In order to obtain feedback from clinicians using CBT in the treatment of panic disorder, an on-line survey was constructed with the assistance of a group of clinicians who were experienced in using CBT clinically, and included treatment, therapist, patient, and contextual variables. The survey itself, which took approximately 10 minutes to complete, was advertised internationally to practicing clinicians using CBT to treat panic. The following categories were included in the survey, where clinicians indicated which specific variables in each category they found to limit the successful use of CBT in treating the symptoms of panic: patient's symptoms related to panic; other patient problems or characteristics; patient expectations; patient beliefs about panic; patient motivation; social system (home, work, other); problems/limitations associated with the CBT intervention; and therapy relationships issues.

Most of the participants who responded to the survey had their degrees in clinical psychology. Their median age was 45, with a range of 25 to 81 years of age. In line with this wide age range, approximately one third of participants had less than 10 years of clinical experience, and another third 20 or more years of experience. With regard to the length of therapy, most indicated that their intervention lasted between 3 and 6 months. However, there was a substantial number that saw patients 6 months to a year. This is consistent with the clinical survey findings of Westen and colleagues (2004), who found that interventions in naturalistic settings often lasted longer than the duration reported in the research literature.

With regard to the CBT procedures used, virtually all respondents made use of psychoeducation as part of their intervention. Inasmuch as panic patients typically misinterpret the origins and significance of their symptoms (e.g., "I don't know why this is happening," "I'm going to die"), the psychoeducational component of the intervention plays a particularly important therapeutic function. As an extension of psychoeducation, the typical intervention reported by respondents also included cognitive restructuring of patients' beliefs and their feared outcomes, relabeling of the sensations associated with panic, and identification of their emotional reactions to current life situations. Exposure to agoraphobic situations is also typical, as is simulation of panic sensations within the session and breathing retraining. Although not usually part of the CBT intervention for the treatment of panic disorder, more than half report having worked on helping patients to resolve conflicts that were causing stress in their lives, and also explored the developmental roots of some of their fears. Further, more than half of the participants made use of relaxation training which, like breathing retraining, has been somewhat controversial in the literature (Teachman, Goldfried, & Clerkin, 2013). Although some therapists view these interventions as providing the patient with a coping skill, others have expressed the concern that they might serve as safety behaviors, causing the patient to avoid, rather than confront, their anxiety. The research findings on whether to include breathing retraining and applied relaxation are mixed (Craske & Barlow, 2008), and further work to clarify this issue is clearly in order.

When asked about panic-related symptoms they have found to undermine treatment effectiveness, more than half of the respondents indicated that chronicity played a major role. This is consistent with the findings of a meta-analysis of 42 studies published between 1980 and 2006, which found that the shorter the duration of the disorder, the more effective the intervention (Sanchez-Meca, Rosa-Alcazar, Marin-Martinez, & Gomez-Conesa, 2010). As reported by more than a third of the respondents in the current survey, other symptom characteristics that make treatment less than effective included the presence of PTSD, the tendency to dissociate, functional impairment, and severity. With regard to other patient characteristics that created difficulties, the two most typical patient problems consisted of their inability to work between sessions and their reluctance to give up safety behaviors, both of which reflect between-session aspects of treatment over which therapists have little control. There were also a number of other patient problems reported that make symptom reduction more difficult (e.g., personality disorders, chaotic lifestyle, substance abuse). This is consistent with an observation made by Chambless and Goldstein several years ago (Chambless & Goldstein, 1982), that prognosis in the treatment of agoraphobia with panic varied

according to the "complexity" of the case. Thus, they maintained that panic attacks that were the result of a focal situational event (e.g., speaking in public) were easier to treat than those that were a function of other psychological problems (e.g., general anxiety disorder) or a difficult and stressful life circumstance (e.g., a bad marriage).

Of those patient expectations about the treatment that limited clinical effectiveness, the most typical problems reported by respondents were that patients expected that they would be free of all anxiety, that the therapist would do all the work to make things better, and that medication was needed in order to reduce their panic symptoms. Thus, despite the fact that virtually all therapists included a psychoeducation component to the intervention, a certain percentage of patients nonetheless continued to hold antitherapeutic expectations about the therapy. Extending the early work on the importance of therapy expectations by Borkovec (1972), Constantino (2012) and his colleagues have recently conducted research on the parameters of this important variable that can contribute to successful treatment. Of the most problematic beliefs about panic itself that limited clinical effectiveness was the thought on the part of patients that their fears were actually realistic (e.g., that they would have a heart attack), that their problems were due to realistic external factors, and that it was dangerous to experience anxiety. Interestingly enough, relatively few therapists reported clinical limitations resulting from patients' beliefs that symptom reduction would have a negative impact on their relationships with others. The question of whether the reduction of panic symptoms and agoraphobic avoidance would have an adverse affect on the patients' relationship with significant others has been debated over the years (Craske & Barlow, 2008), and the findings of this survey would suggest that it might not be as serious a problem as some have suggested.

Not surprisingly, the role of patient motivation was highlighted as significant to therapeutic progress, with half of the therapists noting this as a problem at the outset of therapy, and that insufficient motivation contributed to premature termination. In many respects, this is not surprising, as willingness to comply with the therapy procedure that requires them to experience anxiety depends on a certain level of motivation to change. In light of this, it would be important for therapists to consider the use of motivational interviewing as an adjunct to the treatment of panic disorder (Miller & Rollnick, 2002).

A large percentage of therapists pointed to the patient's social system as an important factor that could potentially undermine clinical effectiveness, such as the environment at home and at work. This is consistent with the observation made by Chambless and Goldstein (1982) noted above and the more recent findings that criticism and control in close relationships can exacerbate panic symptoms (Steketee, Lam, Chambless, Rodebaugh, & McCullouch, 2007). These findings, taken together, underscore the need for research to assess and modify relevant environmental antecedents and consequences of panic, as well as the role that significant others play in either supporting or sabotaging the therapy.

When asked about the problems and limitations associated with the CBT intervention itself, close to one half of the participants indicated that it did not provide sufficient guidelines for dealing with patients' reluctance to eliminate safety behaviors. Other limitations of the treatment protocol involved its inability to deal with comorbid problems, the difficulty in simulating panic symptoms in the session, and the logistical problems associated with in vivo exposure. In addressing the exposure problem, Botella and colleagues (2007) have found virtual reality exposure to be efficacious in the treatment of panic with agoraphobia. An interesting finding in the survey was that 16% of the therapists reported that the current CBT protocol is limited in that it does not deal with instances where the patient's anger contributed to the panic attacks. In light of the fact that there have been scattered reports in the literature on the link between anger and panic (e.g., Chambless & Goldstein, 1982; Hinton, Hsia, Um, & Otto, 2003; Moscovitch, McCabe, Antony, Rocca, & Swinson, 2008), these finding suggest that the option for treating anger (which has many of the same physiological correlates as anxiety) may be an important addition to the CBT protocol.

Therapy relationship issues were highlighted by survey respondents as contributing to clinical difficulties. More than one third of the respondents indicated that the therapy alliance was not strong enough to bring about change, and one third admitted that their patients did not feel that their distress was sufficiently understood or validated by the therapist. Of particular significance was that 17% of the respondents acknowledged that their own frustration with progress and their negative feelings for the patient created difficulties. Although therapist frustration with patients has been found to adversely affect therapeutic progress (Henry, Schacht, & Strupp, 1986), it is often unrecognized or unacknowledged by therapists, despite the fact that there exist methods (e.g., reattribution of motive) for reducing such negative feelings toward the patient (Wolf, Goldfried, & Muran, 2013). Indeed, research

by Williams and Chambless (1990) found that agoraphobic patients who perceived their therapists as more caring and involved were more likely to benefit from treatment.

The results of this survey have important implications for training new psychotherapists. Training in cognitive behavioral therapy typically starts with a manual that trainees are expected to master. An inherent problem with manuals is how they decontextualize the process of therapy by emphasizing adherence to accomplishing specific goals in a specific order. A trainee faced with a challenging patient who refuses to cooperate with the manual may become frustrated, blaming themselves for lack of clinical skill, or worse, blaming the patient. By specifying patient variables that are known to interfere with the successful implementation of CBT, new therapists are prepared for challenging patients and may be less inclined to rigid adherence to a treatment manual.

There are a number of limitations of this study. One of the obvious limitations of this study is that it involves reports of what therapists say they do and what they've observed, and not what they actually did or what actually occurred. With no check on fidelity or competence, we have no way of knowing the extent to which therapists made use of the CBT intervention for treating panic disorder or how well they implemented the intervention. Many reported making use of procedures that were not part of the empirically supported protocol, and it is possible that had they adhered to the clinical procedures used in the research, they may have had different experiences. Future studies will need to more closely scrutinize the endorsement of items by respondents for reliability and validity. Second, given the nature of Internet surveys, there are serious concerns about the representativeness of the sample. Respondents were primarily Ph.D.s in Clinical Psychology. Only four identified themselves as social workers. Future studies will need to make more of an effort to sample from the different professional groups practicing CBT. A related issue is how respondents identified themselves as cognitive behavioral therapists. Future studies will need to question respondents about specific assessment and treatment procedures in order to obtain a more functional identification of the practice of CBT. Third, the yes/no format of responses to specific items does not differentiate whether a specific variable is a barrier to treatment that a clinician encounters only once or whether it is a recurrent problem. For example, although 57% of respondents endorsed the chronicity of panic symptoms as a barrier, there is no way to determine if this occurred in only one patient or in multiple patients. The answer to these questions is beyond the scope of a 10-minute Internet survey, and future studies using more sophisticated and detailed questions are required to obtain this level of detail. This is clearly a question that merits empirical investigation. Finally, not all the therapists that began the survey completed it, and the absence of demographic data on these noncompleters makes it difficult to determine the characteristics of these participants.

Although there are limitations associated with internal validity, a strength of the current study is that is has external validity: it is a report of therapists' clinical experiences. Interestingly enough, their report of having 78% success in symptom reduction parallels the success rate found in controlled clinical trials (Teachman et al., 2013). Although the focus of their work with panic patients consisted of symptom reduction, it is also of particular interest that a little over two thirds of the participants indicated that they believed that more than symptom reduction was required in their clinical work with these patients, no doubt to deal with many of those variables that they observed were contributing to the panic symptoms.

The survey findings are intriguing and, in many ways, raise more questions than they answer. However, this is precisely the purpose of this initiative: namely, to provide the researcher with clinically derived directions for future investigation. Moreover, it offers a compendium of shared clinical experiences than can alert the practitioner to potential difficulties in treating panic patients. Finally, it is also a step in the direction of closing the gap between research and practice. The objective is to give clinicians a voice in the research agenda; hopefully, this may encourage them to become more willing to reap the benefits of research findings, and point to research findings that bear directly on their clinical experience.

References

American Psychological Association Presidential Task Force on Evidence-Based Practice (2006). Evidence-based practice in psychology. *American Psychologist*, *61*, 271–285.

Arch, J. J., & Craske, M. G. (2011). Addressing relapse in cognitive behavioral therapy for panic Disorder: Methods for optimizing long-term treatment outcomes. *Cognitive and Behavior Practice*, *18*, 306–315.

Borkovec, T. D. (1972). Effect of expectancy on outcome of systematic desensitization and implosive treatment for analogue anxiety. *Behavior Therapy*, *3*, 29–40.

Botella, C., Garcia-Palacious, A., Villa, H., Banos, R. M., Quero, S., Alcaniz-M, & Riva, G. (2007). Virtual reality exposure in the treatment of panic disorder and agoraphobia: A controlled study. *Clinical Psychology and Psychotherapy*, *14*, 164–175.

Chambless, D. L., & Goldstein, A. J. (Eds.). (1982). *Agoraphobia: Multiple perspectives on theory and treatment*. New York, NY: Wiley-Interscience.

Constantino, M. J. (2012). Believing is seeing: An evolving research program on patients' psychotherapy expectations. *Psychotherapy Research*, *22*, 127–138.

Craske, M. G., & Barlow, D. H. (2008). Panic disorder and agoraphobia. In D. H. Barlow (Ed.), *Clinical handbook of psychological disorders* (4th ed., pp. 1-64). New York, NY: Guilford.

Dimidjian, S., & Hollon, S. H. (2011). What can be learned when empirically supported treatments fail? *Cognitive and Behavioral Practice*, *18*, 303–305.

Eaton, W. W., Kessler, R. C., Wittchen, H. U., & Magee, W. J. (1994). Panic and panic disorder in the United States. *American Journal of Psychiatry*, *151*(3), 413–420.

Fishman, S. T. (1980). *Agoraphobia: Multiform treatment* (audio tape). New York, NY: Guilford.

Goldfried, M. R., Newman, M., Castonguay, L. G., Fuertes, J. N., Magnavita, J. J., Sobell, L. C., & Wolf, A. W. (2014). On the dissemination of clinical experiences in using empirically supported treatments. *Behavior Therapy*, *45*, 3–6 (this issue).

Goldfried, M. R., & Wolfe, B. E. (1996). Psychotherapy practice and research: Repairing a strained alliance. *American Psychologist*, *51*, 1007–1016.

Goldfried, M. R., & Wolfe, B. E. (1998). Toward a more clinically valid approach to therapy research. *Journal of Consulting and Clinical Psychology*, *66*, 143–150.

Henry, W. P., Schacht, T. E., & Strupp, H. H. (1986). Structural analysis of social behavior: Application to a study of interpersonal processes in differential psychotherapeutic outcome. *Journal of Consulting and Clinical Psychology*, *54*, 27–31.

Hinton, D., Hsia, C., Um, K., & Otto, M. W. (2003). Anger-associated panic attacks in Cambodian refugees with PTSD: A multiple baseline examination of clinical data. *Behaviour Research and Therapy*, *41*, 647–654.

McCabe, R. E., & Antony, M. M. (2005). Panic disorder and agoraphobia. In M. M. Antony, D. R. Ledley, & R. G. Heimberg (Eds.), *Improving outcomes and preventing relapse in cognitive behavioral therapy*. New York, NY: Guilford.

Miller, W. R., & Rollnick, S. (2002). *Motivational interviewing: Preparing people for change*. New York, NY: Guilford.

Mitte, K. A. (2005). Meta-analysis of the efficacy of psycho- and pharmacotherapy in panic disorder with and without agoraphobia. *Journal of Affective Disorders*, *88*, 27–45.

Moscovitch, D. A., McCabe, R. E., Antony, M. M., Rocca, L., & Swinson, R. P. (2008). Anger experience and expression across the anxiety disorders. *Depression and Anxiety*, *25*, 107–113.

Sanchez-Meca, J., Rosa-Alcazar, A. I., Marin-Martinez, F., & Gomez-Conesa, A. (2010). Psychological treatment of panic disorder with or without agoraphobia: A meta-analysis. *Clinical Psychology Review*, *30*, 37–50.

Sanderson, W. C., & Bruce, T. J. (2007). Causes and management of treatment-resistant panic disorder and agoraphobia: A survey of expert therapists. *Cognitive and Behavioral Practice*, *14*, 26–35.

Steketee, G., Lam, J. N., Chambless, D. L., Rodebaugh, T. L., & McCullouch, C. E. (2007). Effects of perceived criticism on anxiety and depression during behavioral treatment of anxiety disorders. *Behaviour Research and Therapy*, *45*, 11–19.

Task Force on Promotion and Dissemination of Psychological Procedures (1995). Training in and dissemination of empirically-validated psychological treatment: Report and recommendations. *The Clinical Psychologist*, *48*, 3–23.

Teachman, B. A., Goldfried, M. R., & Clerkin, E. M. (2013). Panic and phobias. In L. G. Castonguay, & T. F. Oltmanns (Eds.), *Psychopathology: Bridging the gap between basic empirical findings and clinical practice* (pp. 88–142). New York, NY: Guilford.

Westen, D., & Morrison, K. (2001). A multidimensional meta-analysis of treatment for depression, panic and generalized anxiety disorder: An empirical examination of the status of empirically supported therapies. *Journal of Consulting and Clinical Psychology*, *59*, 875–899.

Westen, D., Novotny, C. M., & Thompson-Brenner, H. (2004). The empirical status of empirically supported psychotherapies: Assumptions, findings, and reporting in controlled clinical trials. *Psychological Bulletin*, *130*, 631–663.

Williams, K. E., & Chambless, D. L. (1990). The relationship between therapist characteristics and outcome of an in vivo exposure treatment of agoraphobia. *Behavior Therapy*, *21*, 111–116.

Wolf, A., Goldfried, M. R., & Muran, J. C. (Eds.). (2013). *Transforming negative reactions to clients: From frustration to compassion*. Washington, DC: American Psychological Association.

Received: June 29, 2013
Accepted: October 10, 2013
Available online 19 October 2013